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# image

International Meeting for Applied Geoscience & Energy



AAPG



## OFFICIAL PROGRAM

for the World's #1 Geoscience Event

17–20 August 2026 • George R. Brown Convention Center • Houston, Texas

Connecting

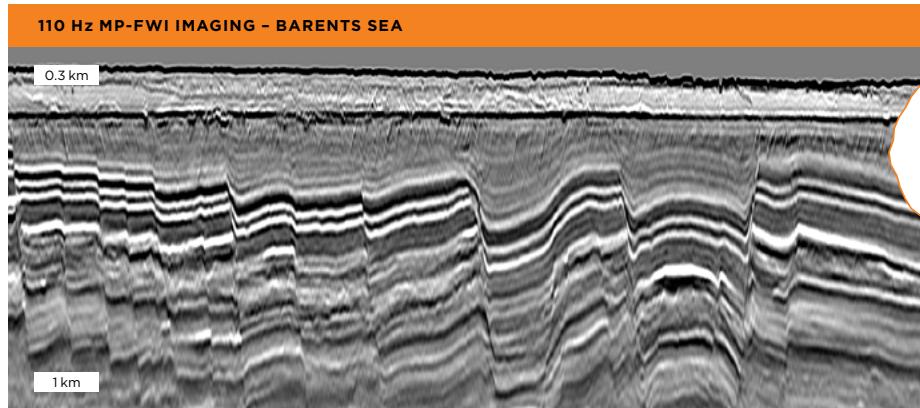
**IDEAS** to  
**POWER**  
the **World**

[IMAGEevent.org](https://IMAGEevent.org)

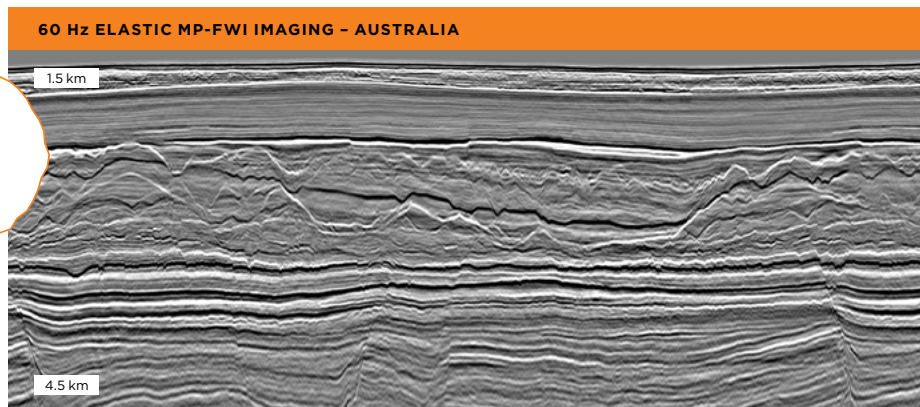
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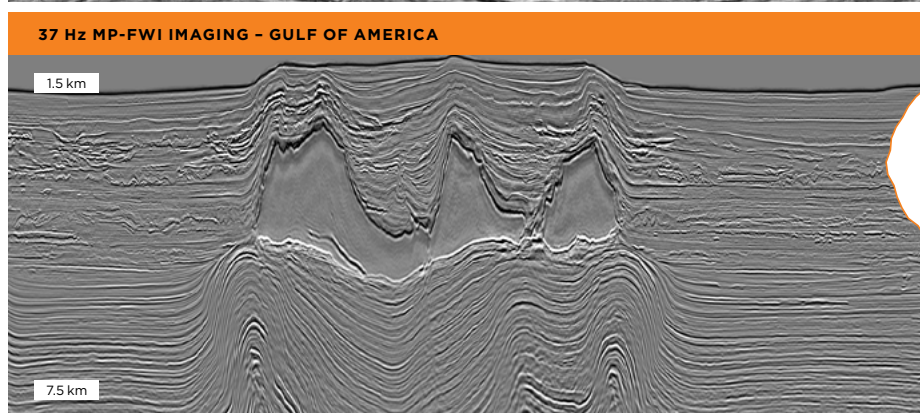
# RESOLUTION SO HIGH IT HERTZ



110<sup>Hz</sup>  
*ouch*



60<sup>Hz</sup>  
*oof*



37<sup>Hz</sup>  
*aagh*

DUG Elastic Multi-parameter FWI Imaging is the new benchmark for subsurface characterisation, providing geological insight with unparalleled resolution. By harnessing the entire visco-elastic wavefield, it delivers high-fidelity earth models that illuminate complex structures and subtle stratigraphic features. The result is a step change in understanding, driving confident interpretation and more informed decision-making.





# Connecting **IDEAS** to **POWER** the **World**

Great ideas don't power the world alone — they need the right room, the right minds, and the right moment to connect. That's IMAGE '26.

Our technical program brings together the geoscientists, geophysicists, and energy professionals shaping what's next, backed by deep technical content, hands-on learning, and the kind of connections that turn insight into impact.

This is where your ideas meet the power to move them forward.

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## For the best experience



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# Thank You to Our Sponsors

The International Meeting for Applied Geoscience and Energy is made possible in large part through the generous support of our sponsors. Their crucial contributions directly fund and enable many of the convention's essential programs, networking breaks, and key events. We extend our sincere gratitude for their vital partnership.

List current as of 20 July

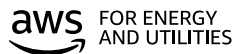
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# Connecting Ideas to Power the World Welcome to IMAGE 2026

From carbon management to digital technologies, connect across disciplines at IMAGE to turn technical insights into immediate industry impact.

On behalf of the IMAGE Steering Committee, we are pleased to welcome you to the one place where the global geoscience and energy community comes together to solve today's biggest subsurface challenges and shape tomorrow's energy future.

Recognized as the **world's leading geoscience event**, IMAGE brings together the global geoscience and energy community to advance subsurface understanding and help shape the future of energy.

Whether you're seeking new technical knowledge, evaluating emerging technologies, expanding your professional network, or exploring new business opportunities, IMAGE is designed to deliver practical value you can take back to your organization immediately. Every session, conversation, and connection is intended to help you make better decisions, discover new opportunities, and stay ahead in a rapidly evolving industry.

This year's theme, **Connecting Ideas to Power the World**, reflects a simple but powerful truth: the most impactful ideas in our industry are born through connection — across disciplines, sectors, geographies, and generations. IMAGE is designed to foster those connections, creating an environment where ideas are not only shared, but challenged, refined, and transformed into real-world solutions.

The technical program remains at the core of IMAGE, which continues to deliver the largest and most influential technical program in applied geoscience and energy, with **more than 1,100 presentations** and a truly global audience representing over **41 countries**. The technical program spans the full spectrum of geoscience disciplines underpinning subsurface understanding and the evolving energy landscape, including oil and gas, carbon management, geothermal, near-surface applications, digital technologies, and emerging energy systems. Each session is curated for scientific rigor and real world relevance — providing insights that can be applied immediately to today's challenges and evolving industry demands.

The IMAGE Exhibition is a **premier marketplace for innovation and collaboration**. More than an exhibition floor, it is a dynamic environment where technologies, ideas, and partnerships come to life — connecting industry leaders and solution providers with the broader geoscience community.

Throughout the show, don't miss the 'shows within the show' — IMAGE Hubs and Pavilions that spotlight the most critical and fast-evolving areas in geoscience and energy. Specialized hubs and pavilions highlight key focus areas such as digital transformation, carbon management, geothermal and near-surface applications, and global energy opportunities—creating spaces designed for deeper engagement, focused learning, and strategic dialogue. The Global Energy Opportunities Pavilion continues to evolve as an intelligence driven hub for strategic dialogue, providing a worldwide showcase for national oil companies, ministries, and government agencies to promote a broad spectrum of energy and investment opportunities. Representatives from around the globe share insights on exploration priorities, energy transition strategies, cross border opportunities, and future trends while engaging directly with IMAGE attendees. These interactions help bridge the gap between technical innovation and real-world pathways to implementation and investment.

IMAGE is also deeply committed to the next generation of geoscientists and energy professionals. IMAGE offers dedicated **programming for students and early career professionals**, including interactive learning experiences, skill building opportunities, and meaningful access to mentors and industry leaders. These connections play a critical role in sustaining a strong, innovative, and forward-looking geoscience community.

Above all, IMAGE is about what happens when people come together. Some of the most valuable conversations at IMAGE happen outside the meeting rooms—on the exhibit floor, in Society Central, during networking events, and through chance encounters that lead to new ideas, collaborations, and lasting professional relationships. Those moments are just as important as the technical sessions themselves.

We hope your time in Houston is engaging and impactful. Thank you for being part of IMAGE 2026. We hope you leave Houston with new ideas, new connections, and new opportunities that continue to create value long after the conference concludes.

With appreciation,

Molly Turko & Edith Miller  
General Co-Chairs, IMAGE Steering Committee

# Steering Committee



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SEG General Co-Chair



**Molly Turko**  
DEVON ENERGY  
AAPG General Co-Chair



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CNOOC INTERNATIONAL  
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GEOLOGY, UNIVERSITY OF  
TEXAS AT AUSTIN  
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**David Lankford-Bravo**  
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**Cucha López**  
EXXONMOBIL UPSTREAM  
Access and Culture Co-Chair



**Peace Eze**  
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**Denise Benoit**  
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Geothermal Hub Co-Chair



**Roberto Wagner**  
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Geothermal Hub Co-Chair



**Susan Nash**  
AMERICAN ASSOCIATION OF  
PETROLEUM GEOLOGISTS  
(AAPG)  
New Technology Showcase  
Chair



**Bob Fryklund**  
S&P GLOBAL  
Invited Programs Chair



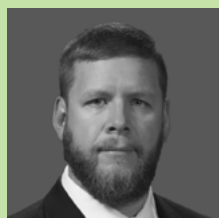
**Andrea Lovatini**  
SLB  
Invited Programs



**Tony Manzur**  
S&P GLOBAL  
Invited Programs



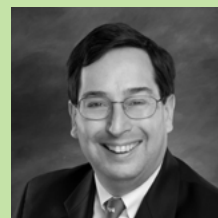
**John Eastwood**  
EXXONMOBIL  
(RETIRED)  
Chair



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U.S. ARMY ERDC  
SEG Voting Member



**Ken Tubman**  
SAEXPLORATION  
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GEOLOGISTS (AAPG)  
Staff Liaison



**Tom Agnew**  
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GEOPHYSICISTS (SEG)  
Staff Liaison

## Oversight Committee



# Honors and Awards

## SEG Honors and Awards Ceremony

**Date:** Tuesday, 18 August  
**Time:** 6:30 p.m.–7:30 p.m.  
**Location:** Marriott Marquis Houston  
Texas Ballroom B/C

One of the most important functions of a professional society is honoring those that have made significant contributions to the profession and science. You are invited to attend the SEG Honors and Awards Ceremony to celebrate the outstanding individuals that have worked hard to advance our science and benefitted our Society.

## AAPG Honors and Awards Celebration

**Date:** Tuesday, 18 August  
**Time:** 6:30 p.m.–7:30 p.m.  
**Location:** Marriott Marquis Houston  
Texas Ballroom E

You are cordially invited to attend the Honors and Awards Celebration of AAPG. This year's event will feature a gallery-style awards showcase where recipients, their guests, colleagues, and conference attendees can connect, celebrate achievements, take photos, and engage in conversation throughout the evening..

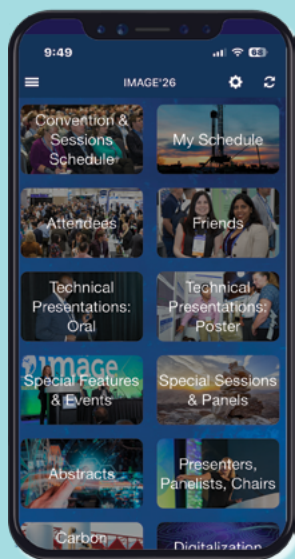
# Navigate Like a Pro with the IMAGE Events App

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Make the most of your time at IMAGE '26 with the official IMAGE app — your digital guide to everything happening at IMAGE.

- Build your personalized schedule
- Explore 1,100+ technical presentations and review presentation abstracts
- Navigate the venue with interactive maps
- Get real-time updates and reminders
- Connect directly with fellow attendees and exhibitors
- Rate the speakers and presentations



### How to Download:

- Scan the code at right to download the "IMAGE Events" App from the Apple App Store or Google Play
- Enter your email address used when registering for the event
- Enter your Customer ID as your password (found in your registration confirmation email)

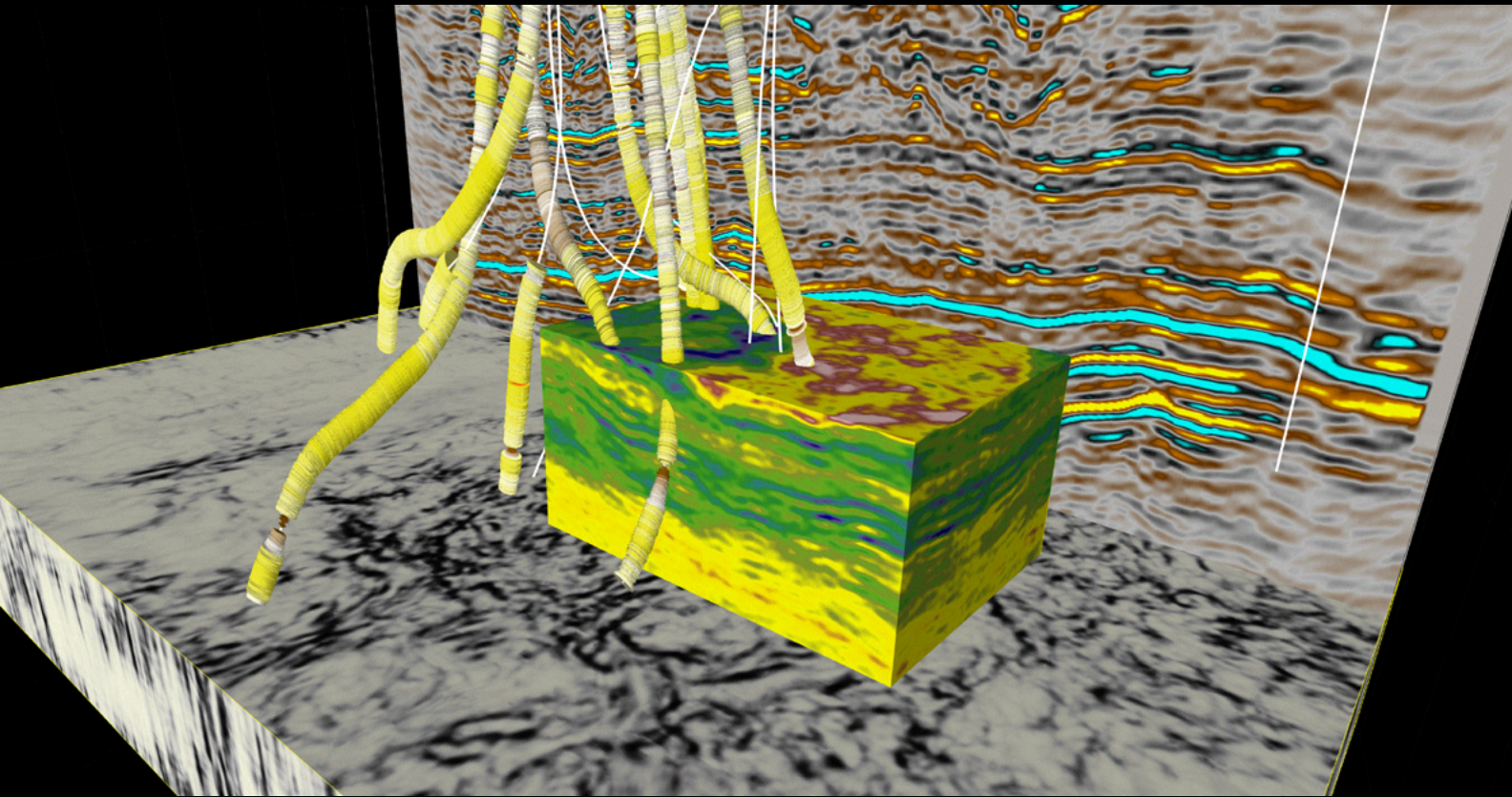


*Note: Your customer ID can be found under the bar code on your original registration confirmation email or on your printed attendee badge.*

### Need help?

Visit Society Central at booth #2022 for hands-on assistance. Our team will be available throughout the convention to ensure you're getting the most value out of your IMAGE experience.

# Interpretation made exploration possible. AI makes it scalable.



Kingdom™ embeds AI directly into interpretation workflows, helping geoscientists evaluate more data, accelerate prospect evaluation, and reduce subsurface uncertainty.

Visit S&P Global Energy at Booth 1130

**S&P Global**  
Energy

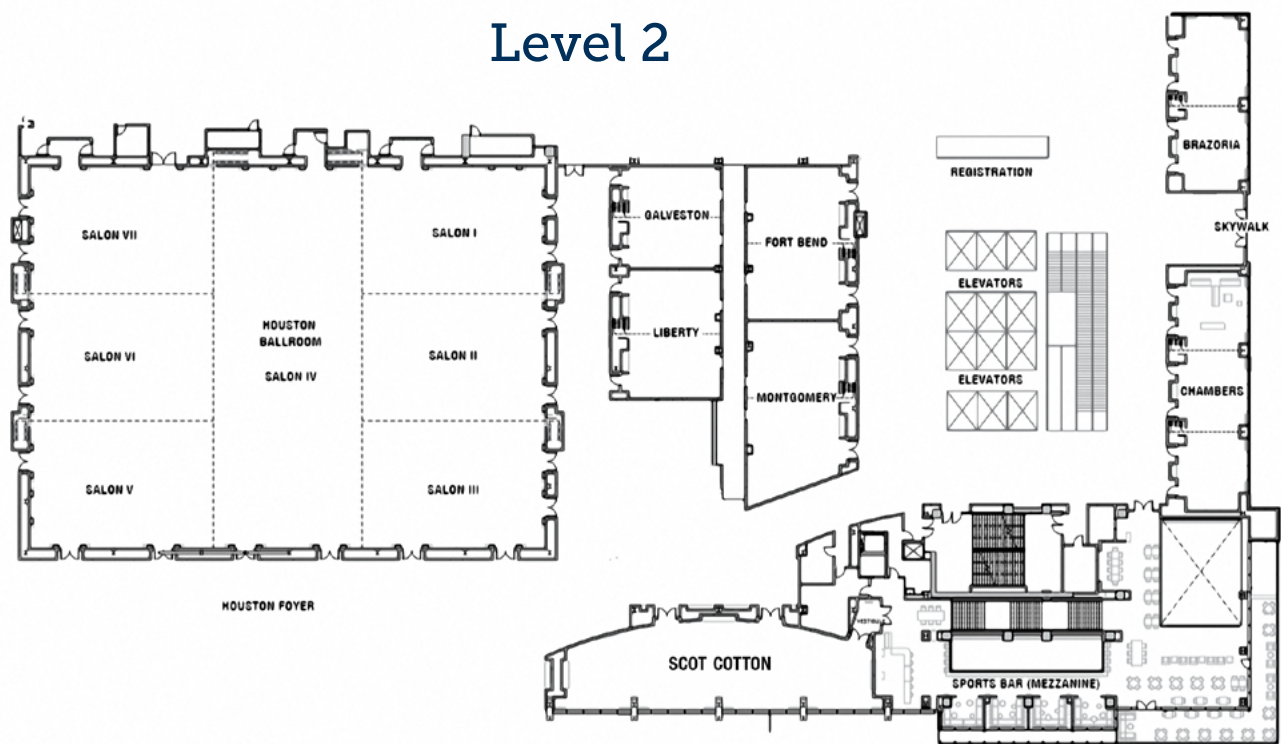
Explore Kingdom™ Geoscience  
Interpretation Platform >



# Hotel Maps

## Marriott Marquis Houston

### Level 2



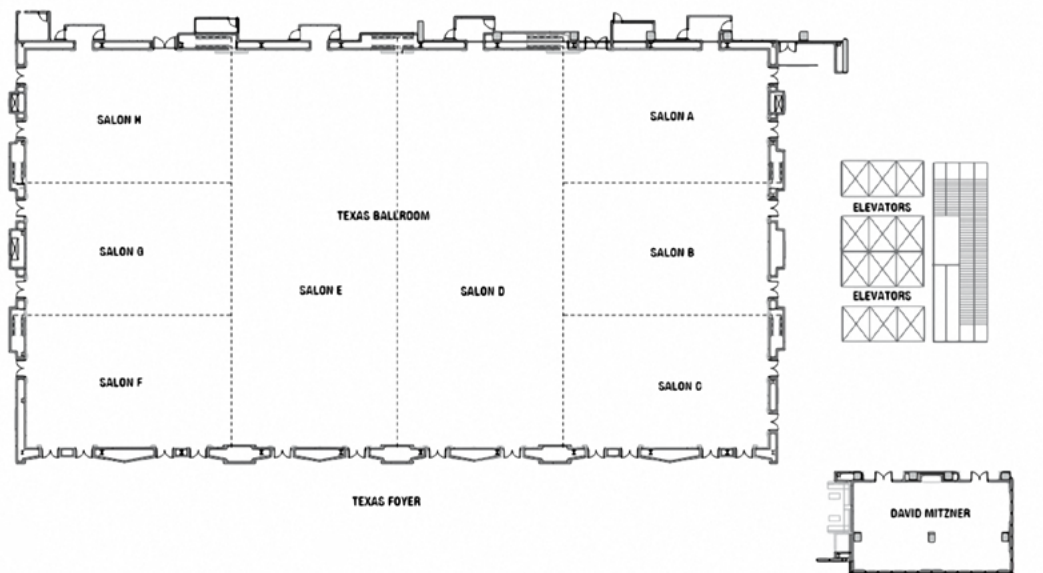
### Level 3







## Level 4



# General Information

## On-Site Registration

Location: Lobby D (street level)

|           |                     |
|-----------|---------------------|
| Sunday    | 8:00 a.m.–5:00 p.m. |
| Monday    | 7:30 a.m.–7:00 p.m. |
| Tuesday   | 7:00 a.m.–5:30 p.m. |
| Wednesday | 7:30 a.m.–5:30 p.m. |
| Thursday  | 7:30 a.m.–2:30 p.m. |

## Satellite Registration

Location: Marriott Marquis Houston

Level 2 Near Skybridge to Convention Center

|          |                      |
|----------|----------------------|
| Saturday | 12:00 p.m.–5:00 p.m. |
| Sunday   | 8:00 a.m.–5:00 p.m.  |
| Monday   | 8:00 a.m.–5:00 p.m.  |
| Tuesday  | 7:00 a.m.–1:00 p.m.  |

## Exhibition

Location: Exhibit Halls C and D

|           |                     |
|-----------|---------------------|
| Monday    | 5:30 p.m.–7:30 p.m. |
| Tuesday   | 9:00 a.m.–6:00 p.m. |
| Wednesday | 9:00 a.m.–6:00 p.m. |
| Thursday  | 9:00 a.m.–3:00 p.m. |

## Speaker Ready Room

Location: Room 350D

|           |                      |
|-----------|----------------------|
| Monday    | 12:00 p.m.–4:00 p.m. |
| Tuesday   | 7:00 a.m.–6:00 p.m.  |
| Wednesday | 7:00 a.m.–6:00 p.m.  |
| Thursday  | 7:00 a.m.–5:00 p.m.  |
| Friday    | 7:00 a.m.–5:00 p.m.  |

## Audio/Video/Photographs

Please note that audio recording, video recording, or photographing any portion of IMAGE '26 is strictly prohibited. Capturing or photographing contents of exhibit displays, or Oral or Poster Technical and Panel Sessions is strictly prohibited.

## Consent to Use Photographic Images

Registration, attendance, and/or participation in IMAGE and/or IMAGE-sanctioned activities constitutes agreement by the registrant to IMAGE's use and distribution (both now and in the future) of the registrant's or attendee's image and/or voice in recordings of such events and activities.

## First Aid/Medical Services

Location: Lobby E (street level) and 3<sup>rd</sup> level

|           |                      |
|-----------|----------------------|
| Friday    | 8:00 a.m.–5:00 p.m.  |
| Saturday  | 8:00 a.m.–5:00 p.m.  |
| Sunday    | 8:00 a.m.–5:00 p.m.  |
| Monday    | 7:30 a.m.–8:00 p.m.  |
| Tuesday   | 7:00 a.m.–10:00 p.m. |
| Wednesday | 7:30 a.m.–6:00 p.m.  |
| Thursday  | 7:30 a.m.–10:00 p.m. |
| Friday    | 8:00 a.m.–5:00 p.m.  |

## Federal Express/Business Services

Federal Express and other business services are available at the following nearby hotels:

### Hilton Americas — Houston

Located on the 3<sup>rd</sup> floor next to the east end elevators and skywalk to the George R. Brown Convention Center.

#### Hours of Operation:

|               |                      |
|---------------|----------------------|
| Monday–Friday | 7:00 a.m.–7:00 p.m.  |
| Saturday      | 8:00 a.m.–4:00 p.m.  |
| Sunday        | 10:00 a.m.–4:00 p.m. |

#### Contact:

|                   |              |
|-------------------|--------------|
| FedEx Office      | 713-651-3013 |
| Direct Hotel Line | 6122         |

### Marriott Marquis Houston

Located on the 2nd floor west side next to Houston Ballroom 5. The Business Center is operated by in-house FedEx staff.

#### Hours of Operation:

|               |                      |
|---------------|----------------------|
| Monday–Friday | 7:00 a.m.–7:00 p.m.  |
| Saturday      | 8:00 a.m.–12:00 p.m. |
| Sunday        | 12:00 p.m.–4:00 p.m. |

#### Contact:

|       |                   |
|-------|-------------------|
| Phone | 713-222-0070      |
| Email | usa5705@fedex.com |

## Lost and Found

### Location: Registration

Lose something while in a technical session? Find something in registration that someone dropped? Please visit the lost and found located at Registration in Lobby D. Items found during the show should be turned into IMAGE Show Management personnel. If your lost items have not been turned in, you can leave your contact information at Registration.

## Luggage Check

IMAGE will not be providing a luggage check service. Should you need to store luggage on your departure date, please arrange with your hotel.

# Code of Conduct

IMAGE is dedicated to providing a harassment-free conference experience for everyone, regardless of gender, sexual orientation, disability, physical appearance, body size, race, nationality, or religion. We do not tolerate harassment of conference participants in any form.

- All communication, whether casual or formal, should be appropriate for a professional audience including people of many different backgrounds.
- Be careful in the words that you choose. Remember that sexist, racist, and other exclusionary jokes can be offensive to those around you. Excessive swearing and offensive jokes are not appropriate at IMAGE events.
- Sexual language and imagery is not appropriate for any conference venue, including talks.
- Be kind to others. Do not insult or put down other attendees. Behave professionally.
- Exhibitors are also subject to the anti-harassment policy and are required to conduct themselves in a manner consistent with the professional and business purposes of the show.
- Personnel and/or models contracted to assist in an exhibitor's booth are required to wear appropriate attire.

***The IMAGE volunteer leadership and staff will enforce this code throughout the event.***

In particular, exhibitors should not use sexualized images, activities, or other material, and booth staff should not use sexualized clothing/uniforms/costumes, or otherwise create a sexualized environment.

- IMAGE reserves the right to make a final determination regarding what is acceptable and may remove persons from the exhibition floor that are not in compliance.

If a participant engages in behavior that violates this code of conduct, IMAGE reserves the right to take any action deemed appropriate, including warning the offender(s) or expelling the offender(s) from the conference with no refund.

## REPORTING

If someone makes you or anyone else feel unsafe or unwelcome, please report the incident to a conference staff member as soon as possible. You can make a report either personally or anonymously via the online form ([aapg.org/care-report](http://aapg.org/care-report)).

If you have any questions or concerns, please notify a badged IMAGE Show Management staff member or call 1-800-898-2274.

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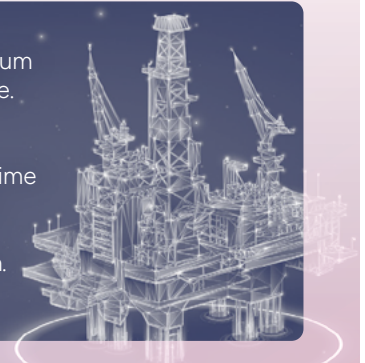


## Subsurface Analytics: Wider. Deeper. Faster.

The future of energy intelligence begins here.

Visit Spotfire at **Booth #1745.**

Transform your petroleum workflows with Spotfire. Seamlessly bridge geosciences and engineering with real-time AI analytics, predictive maintenance, and 3D subsurface visualization.





# Schedule at a Glance

All events take place at the George R. Brown Convention Center and/or the Marriott Marquis Houston unless otherwise noted.

## Saturday, 15 August

12:00 p.m.–5:00 p.m. Satellite Registration  
(Marriott Marquis Hotel)

## Sunday, 16 August

8:00 a.m.–5:00 p.m. Registration  
8:00 a.m.–5:00 p.m. Satellite Registration  
(Marriott Marquis Hotel)  
8:00 a.m.–5:00 p.m. Preconvention Short Courses  
8:00 a.m.–6:00 p.m. Preconvention Field Trips  
10:00 a.m.–6:00 p.m. SEG/Chevron Student Leadership  
Symposium (SLS) — Day 1

## Monday, 17 August

7:30 a.m.–7:00 p.m. Registration  
8:00 a.m.–5:00 p.m. Preconvention Short Courses  
8:00 a.m.–5:00 p.m. Satellite Registration  
(Marriott Marquis Hotel)  
8:00 a.m.–2:00 p.m. AAPG Imperial Barrel Award (IBA)  
Global Finals and Ceremony (*by invitation only at Murphy Oil*)  
8:00 a.m.–4:00 p.m. SEG/Chevron Student Leadership  
Symposium (SLS) — Day 2  
9:00 a.m.–11:00 a.m. SEG Council Meeting and Presidential  
Address  
10:30 a.m.–12:30 p.m. AAPG Regions Meeting  
1:00 p.m.–4:30 p.m. From Bedrock to Bottle: Geology  
in the Glass  
1:00 p.m.–2:30 p.m. *The Leading Edge* Editorial Board  
Meeting  
2:00 p.m.–4:00 p.m. AAPG Division of Professional Affairs  
Annual Meeting  
2:30 p.m.–4:00 p.m. Panel: High-Impact Technical  
Leadership: Executive Decision-  
Making in Complex Energy  
Environments  
3:00 p.m.–4:30 p.m. SEG GEOPHYSICS Editors Meeting  
4:30 p.m.–5:30 p.m. Opening Session  
5:30 p.m.–7:30 p.m. Exhibition and Icebreaker Reception  
6:30 p.m.–8:00 p.m. Early Career Networking Reception

## Tuesday, 18 August

7:00 a.m.–5:30 p.m. Registration  
7:00 a.m.–1:00 p.m. Satellite Registration  
(Marriott Marquis Hotel)  
8:00 a.m.–12:00 p.m. Oral and Poster Sessions  
8:00 a.m.–10:00 a.m. SEG Challenge Bowl  
8:00 a.m.–10:00 a.m. AAPG Africa Region Meeting  
9:00 a.m.–6:00 p.m. Exhibition  
9:00 a.m.–6:00 p.m. Pavilion Theatre Presentations  
9:00 a.m.–12:00 p.m. Geothermal Hub Presentations  
9:30 a.m.–10:30 a.m. Refreshment Break  
10:00 a.m.–11:30 a.m. SEG Technical Standards Committee  
Meeting  
11:00 a.m.–11:45 a.m. Panel: State Energy and Mineral  
Resources Development Using  
Pre-Competitive Data Sets and  
Publications  
11:30 a.m.–1:15 p.m. All-Convention Luncheon  
11:30 a.m.–1:00 p.m. SEG Foundation Donor Luncheon  
(*by invitation only*)  
12:00 p.m.–1:00 p.m. SEG Near-Surface Geophysics  
Technical Section Business Meeting  
1:00 p.m.–5:00 p.m. Geothermal Hub Presentations  
1:20 p.m.–5:20 p.m. Oral and Poster Sessions  
2:00 p.m.–5:00 p.m. New Technology Showcase  
3:00 p.m.–4:00 p.m. Refreshment Break  
3:00 p.m.–5:00 p.m. Early Career Speed Mentoring  
5:00 p.m.–6:00 p.m. End-of-Day Reception  
5:00 p.m.–6:00 p.m. Geoscientists *without* Borders®  
Reception  
5:00 p.m.–6:00 p.m. SEG Gravity and Magnetism  
Committee Meeting  
5:30 p.m.–6:30 p.m. SEG Passive Seismic Committee  
Meeting  
6:30 p.m.–7:30 p.m. AAPG Honors & Awards Celebration  
6:30 p.m.–7:30 p.m. SEG Honors & Awards Ceremony  
7:00 p.m.–10:00 p.m. SEG Near-Surface Geophysics  
Technical Section Reception  
7:00 p.m.–10:00 p.m. SEPM Research Group Meetings  
7:30 p.m.–9:00 p.m. AAPG/SEG Presidents' Reception  
(*by invitation only*)

## Wednesday, 19 August

|                       |                                                                                                                                          |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| 7:30 a.m.–6:00 p.m.   | Registration                                                                                                                             |
| 8:00 a.m.–12:00 p.m.  | Oral and Poster Sessions                                                                                                                 |
| 8:00 a.m.–9:00 a.m.   | ICEG Meeting                                                                                                                             |
| 8:00 a.m.–9:00 a.m.   | AAPG Sections Meeting                                                                                                                    |
| 8:00 a.m.–5:00 p.m.   | SEG EVOLVE Carbon Solutions & Energy Exploration                                                                                         |
| 8:30 a.m.–10:00 a.m.  | AAPG Foundation Forum                                                                                                                    |
| 9:00 a.m.–6:00 p.m.   | Exhibition                                                                                                                               |
| 9:00 a.m.–6:00 p.m.   | Pavilion Theatre Presentations                                                                                                           |
| 9:00 a.m.–12:00 p.m.  | Geothermal Hub Presentations                                                                                                             |
| 9:30 a.m.–10:30 a.m.  | Refreshment Break                                                                                                                        |
| 9:40 a.m.–10:20 a.m.  | Panel: Exploration – How Will Technology Drive the Future?                                                                               |
| 10:00 a.m.–2:00 p.m.  | CAN (Career Advancement Network) Hiring Event                                                                                            |
| 10:20 a.m.–12:00 p.m. | Panel: Africa as a Strategic Pillar of Global Energy Security: Driving Growth Through Technology, Investment, and Strategic Partnerships |
| 10:30 a.m.–12:00 p.m. | AAPG House of Delegates Meeting                                                                                                          |
| 11:30 a.m.–1:00 p.m.  | AAPG Division of Professional Affairs (DPA) Luncheon                                                                                     |
| 11:30 a.m.–1:00 p.m.  | Women's Network Luncheon                                                                                                                 |
| 11:30 a.m.–1:00 p.m.  | SEG Gravity and Magnetism Luncheon                                                                                                       |
| 12:00 p.m.–1:00 p.m.  | SEG Near-Surface Hydrogeophysics Meeting                                                                                                 |
| 1:00 p.m.–5:00 p.m.   | Geothermal Hub Presentations                                                                                                             |
| 1:20 p.m.–5:20 p.m.   | Oral and Poster Sessions                                                                                                                 |
| 1:20 p.m.–5:20 p.m.   | Discovery Thinking Forum                                                                                                                 |
| 2:00 p.m.–5:00 p.m.   | New Technology Showcase                                                                                                                  |
| 3:00 p.m.–4:00 p.m.   | Refreshment Break                                                                                                                        |
| 5:00 p.m.–6:00 p.m.   | End-of-Day Reception                                                                                                                     |
| 5:25 p.m.–6:15 p.m.   | Michel T. Halbouty Lecture                                                                                                               |
| 5:20 p.m.–6:00 p.m.   | SEG Field Camps                                                                                                                          |
| 5:30 p.m.–7:30 p.m.   | Alumni Receptions                                                                                                                        |
| 6:30 p.m.–7:30 p.m.   | AGU-SEG Collaboration Committee Meeting                                                                                                  |
| 6:30 p.m.–9:00 p.m.   | AAPG Foundation Chairman's Reception ( <i>by invitation only</i> )                                                                       |
| 7:00 p.m.–9:00 p.m.   | AAPG/SEG Latin America and Caribbean Region Reception                                                                                    |

## Thursday, 20 August

|                      |                                                                                                       |
|----------------------|-------------------------------------------------------------------------------------------------------|
| 7:00 a.m.–9:00 a.m.  | Women's Networking Breakfast at Phoenixia Market                                                      |
| 7:30 a.m.–2:30 p.m.  | Registration                                                                                          |
| 8:00 a.m.–12:00 p.m. | Oral and Poster Sessions                                                                              |
| 8:00 a.m.–1:00 p.m.  | SEG Applied Sciences Educational Program (ASEP)                                                       |
| 9:00 a.m.–3:00 p.m.  | Exhibition                                                                                            |
| 9:00 a.m.–3:00 p.m.  | Pavilion Theatre Presentations                                                                        |
| 9:00 a.m.–12:00 p.m. | Geothermal Hub Presentations                                                                          |
| 9:30 a.m.–10:30 a.m. | Refreshment Break                                                                                     |
| 11:30 a.m.–1:00 p.m. | SEG Development and Production Luncheon                                                               |
| 11:30 a.m.–1:00 p.m. | AAPG Division of Environmental Geosciences (DEG) and AAPG Energy and Minerals Division (EMD) Luncheon |
| 11:30 a.m.–1:00 p.m. | SEG Mining and Mineral Exploration Luncheon                                                           |
| 1:00 p.m.–5:00 p.m.  | Geothermal Hub Presentations                                                                          |
| 1:00 p.m.–2:00 p.m.  | AAPG Division of Environmental Geoscientists (DEG) Meeting                                            |
| 1:20 p.m.–4:50 p.m.  | Oral and Poster Sessions                                                                              |
| 1:20 p.m.–3:00 p.m.  | Special Session: Best of EAGE 2026                                                                    |
| 2:00 p.m.–3:00 p.m.  | AAPG Energy Minerals Division (EMD) Meeting                                                           |
| 4:30 p.m.–5:30 p.m.  | SEG Mining and Mineral Exploration Committee Meeting                                                  |
| 4:30 p.m.–5:30 p.m.  | SEG CO <sub>2</sub> Committee Meeting                                                                 |
| 5:30 p.m.–6:30 p.m.  | SEG Development and Production Committee Meeting                                                      |
| 5:30 p.m.–7:30 p.m.  | SEG Research Committee Meeting                                                                        |

## Friday, 21 August

|                     |                           |
|---------------------|---------------------------|
| 8:00 a.m.–5:00 p.m. | Postconvention Field Trip |
| 8:30 a.m.–5:00 p.m. | Postconvention Workshops  |

# Breakfast, Luncheons & Receptions

## Monday, 17 August

### Afternoon Activity

**Topic:** From Bedrock to Bottle: Geology in the Glass  
**Speaker:** Diana Khandilyan, Geophysicist, Glass Nomad  
**Time:** 1:00 p.m.–4:30 p.m.  
**Location:** George R. Brown Convention Center, 310BC  
**Fee:** \$95

## Tuesday, 18 August

### All-Convention Luncheon

**Topic:** CEO Spotlight Dialogue  
**Speaker:** Kristian Johansen, Chief Executive Officer, TGS  
**Moderator:** Bob Fryklund, Chief Upstream Strategist, S&P Global Energy  
**Time:** 11:30 a.m.–1:15 p.m.  
**Location:** George R. Brown Convention Center, Ballroom B  
**Fee:** \$85

### SEG Foundation Donor Luncheon *(by invitation only)*

**Time:** 11:30 a.m.–1:00 p.m.  
**Location:** George R. Brown Convention Center, 332  
**Fee:** Included with registration

### SEG Geoscientists *without Borders*® Reception

**Time:** 5:00 p.m.–6:00 p.m.  
**Location:** Marriott Marquis Houston, Scot Cotton  
**Fee:** Included with registration

### SEG Near-Surface Geophysics Technical Section Reception

**Time:** 7:00 p.m.–10:00 p.m.  
**Location:** Marriott Marquis Houston, Scot Cotton  
**Fee:** Included with registration

### AAPG/SEG Presidents' Reception *(by invitation only)*

**Time:** 7:30 p.m.–9:00 p.m.  
**Location:** Marriott Marquis Houston, Texas Ballroom D

## Wednesday, 19 August

### SEG Gravity and Magnetism Luncheon

**Topic:** The Formation, Crustal Architectures, Stratigraphic Stacking Patterns, and Gravity Signatures of Magmatic and Amagmatic Margins: Any Chance of Predicting Hydrocarbon Potential?  
**Speaker:** Garry D. Karner, ExxonMobil Upstream Exploration Company  
**Time:** 11:30 a.m.–1:00 p.m.  
**Location:** George R. Brown Convention Center, 322  
**Fee:** \$80

### AAPG Division of Professional Affairs (DPA) Luncheon

**Topic:** How AI is Reshaping Subsurface Energy Systems  
**Speakers:** Brian Spector and Sahar Bakhshian, Rice University Professors  
**Time:** 11:30 a.m.–1:00 p.m.  
**Location:** George R. Brown Convention Center, 310BC  
**Fee:** \$80

### Women's Network Luncheon

**Topic:** "Unearthing" the History of Jezero Crater, Mars with Perseverance  
**Speaker:** Eleanor (Ellie) Moreland, Ph.D. Candidate at Rice University  
**Time:** 11:30 a.m.–1:00 p.m.  
**Location:** George R. Brown Convention Center, 330  
**Fee:** \$80 Professional / \$50 Student

### All-Alumni Reception

**Time:** 5:30 p.m.–7:30 p.m.  
**Location:** Marriott Marquis Houston, Montgomery  
**Participating universities include:**

- University of Arkansas
- University of Colorado Boulder

### Private Alumni Receptions

**Time:** 5:30 p.m.–7:30 p.m.  
**Location:** Marriott Marquis Houston

- Texas A&M University Department of Geology & Geophysics: Scot Cotton
- Texas Tech University and its Department of Geosciences: Galveston
- University of Houston—Earth and Atmospheric Sciences: Houston Ballroom 2
- University of Oklahoma: Fort Bend

### AAPG Foundation Chairman's Reception *(by invitation only)*

**Time:** 6:30 p.m.–9:00 p.m.  
**Location:** Marriott Marquis Houston, Texas Ballroom B/C

### AAPG/SEG Latin America and Caribbean Region Reception

**Time:** 7:00 p.m.–9:00 p.m.  
**Location:** Marriott Marquis Houston Houston Ballroom 5/6  
**Fee:** Included with registration



## Thursday, 20 August

### Women's Network Breakfast

(Co-organizers: AWG LoneStar, SEG WN, AAPG WN)

**Time:** 7:00 a.m.–9:00 a.m.

**Location:** Phoenicia Market

**Fee:** Advanced \$20 / Onsite \$25

### SEG Development and Production Luncheon

**Topic:** To Be Determined

**Speaker:** To Be Determined

**Time:** 11:30 a.m.–1:00 p.m.

**Location:** George R. Brown Convention Center, 322

**Fee:** \$80

### AAPG Division of Environmental Geosciences (DEG) and Energy Minerals Division (EMD) Luncheon

**Topic:** Helium and Hydrogen — Exploring the New Frontier

**Speaker:** Steven Tedesco, President, Running Foxes

**Time:** 11:30 a.m.–1:00 p.m.

**Location:** George R. Brown Convention Center, 310BC

**Fee:** \$80

### SEG Mining and Mineral Exploration Luncheon

**Topic:** A New Look at Old Waste: Integrating Photography and Geochemistry to Characterize Legacy Mine Tailings

**Speaker:** Bryony Richards, Senior Research Scientist at the Energy & Geoscience Institute, Critical Resources Research Group, The University of Utah

**Time:** 11:30 a.m.–1:00 p.m.

**Location:** George R. Brown Convention Center, 330

**Fee:** \$80

# ExxonMobil

**Proud sponsor of IMAGE '26**

# Committee Meetings

## Monday, 17 August

### AAPG Regions Meeting

Marriott Marquis Houston, Parker Boardroom  
10:30 a.m.–12:30 p.m.

### SEG The Leading Edge Editorial Board Meeting

Marriott Marquis Houston, Galveston A/B  
1:00 p.m.–2:30 p.m.

### AAPG Division of Professional Affairs Annual Meeting

Marriott Marquis Houston, Montgomery A/B  
2:00 p.m.–4:00 p.m.

### SEG Geophysics Editors Meeting

Marriott Marquis Houston, Galveston A/B  
3:00 p.m.–4:30 p.m.

## Tuesday, 18 August

### AAPG Africa Region Meeting

Marriott Marquis Houston, Montgomery A/B  
8:00 a.m.–10:00 a.m.

### SEG Technical Standards Committee Meeting

Marriott Marquis Houston, Fort Bend  
10:00 a.m.–11:30 a.m.

### SEG Near-Surface Geophysics Technical Section Business Meeting

George R. Brown Convention Center, Exhibit Hall C/D  
Near-Surface Pavilion  
12:00 p.m.–1:00 p.m.

### SEG Gravity and Magnetism Committee Meeting

Marriott Marquis Houston, Fort Bend  
5:00 p.m.–6:00 p.m.

### SEG Passive Seismic Committee Meeting

Marriott Marquis Houston, Memorial  
5:30 p.m.–6:30 p.m.

## Wednesday, 19 August

### AAPG Sections Meeting

Marriott Marquis Houston, Fort Bend  
8:00 a.m.–9:00 a.m.

### AAPG Foundation Forum

Marriott Marquis Houston, Montgomery A/B  
8:30 a.m.–10:00 a.m.

### AAPG House of Delegates (HoD) Meeting

Marriott Marquis Houston, Montgomery A/B  
10:30 a.m.–12:00 p.m.

### SEG Near-Surface Hydrogeophysics Meeting

George R. Brown Convention Center, Exhibit Hall C/D  
Near-Surface Pavilion  
12:00 p.m.–1:00 p.m.

### AGU-SEG Collaboration Committee Meeting

Marriott Marquis Houston, Memorial  
6:30 p.m.–7:30 p.m.

## Thursday, 20 August

### AAPG Division of Environmental Geoscientists (DEG) Meeting

Marriott Marquis Houston, Clear Lake A/B  
1:00 p.m.–2:00 p.m.

### AAPG Energy Minerals Division (EMD) Meeting

Marriott Marquis Houston, Clear Lake A/B  
2:00 p.m.–3:00 p.m.

### SEG Mining and Mineral Exploration Committee Meeting

Marriott Marquis Houston, Montgomery A/B  
4:30 p.m.–5:30 p.m.

### SEG CO<sub>2</sub> Committee Meeting

Marriott Marquis Houston, Fort Bend  
4:30 p.m.–5:30 p.m.

### SEG Development and Production Committee Meeting

Marriott Marquis Houston, Montgomery A/B  
5:30 p.m.–6:30 p.m.

### SEG Research Committee Meeting

Marriott Marquis Houston, Fort Bend  
5:30 p.m.–7:30 p.m.

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# Reservoir Engineers Don't Need Another Workflow. They Need a Better Way to Execute It.

CERA  
**S&P Global**  
Energy

Reservoir engineering has never been simply about analysis. It's about turning data into decisions. As well inventories grow, datasets become larger, and teams become more distributed, engineers are spending more time managing workflows and less time generating insights.

The challenge isn't a lack of proven engineering methodologies. It's creating an environment where those workflows can be executed consistently, efficiently, and at scale.

## Why this Shift is Happening Now

"We're not just moving software to the cloud. We're building the foundation for a more connected, scalable way of working."



**Rachael Moreland**  
Vice President, Upstream Software  
S&P Global Energy

Today's energy organizations are managing more data, greater complexity, and increasing expectations around collaboration and speed of decision-making. The challenge is no longer simply executing a workflow; it's creating an environment where work can scale. The value of a modern platform isn't any single workflow, but the ability to connect workflows, data, and users within a consistent environment.

## Solving the Right Problem

"The methodologies already exist. What we're focused on is improving the environment where those methodologies are executed."



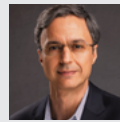
**Kyle Hadden**  
Lead Product Manager, Element  
S&P Global Energy

When speaking with reservoir engineers, one theme consistently emerges: the analysis itself isn't usually the difficult part. What consumes time is everything surrounding the analysis from rebuilding workflows, updating cases, and maintaining consistency across projects.

These aren't reservoir engineering challenges; they're execution challenges. The opportunity is not to reinvent engineering methods, but to create an environment that is more scalable, repeatable, and consistent.

## What Engineers Want in Practice

"Engineers aren't looking for another reservoir engineering method. They want a faster and more efficient way to execute the work they already know how to do."



**Alireza Haghighat**  
Head of Engineering Software  
Specialists, Americas  
S&P Global Energy

Engineers want workflows that stay connected, assumptions that remain aligned, and results that remain consistent as projects evolve. Whether working across a handful of wells or hundreds, they want to spend less time managing processes and more time focused on interpretation, insight, and development decisions.

## Element. One Workspace. Every Well.

Element is S&P Global Energy's cloud-based engineering platform designed to help reservoir engineers execute proven workflows within a more connected, scalable, and consistent environment.

### Key capabilities include:

- Analyze multiple wells at scale within a shared project environment.
- Eliminate repeated setup through automated calculations and workflow updates.
- Keep analysis consistent across wells and scenarios with linked case management.
- Work in a single engineering environment with centralized, governed data.
- Scale analysis across large well inventories with cloud-based performance.

Element brings together engineering analysis, automation, data, and scalability in a single workspace, helping engineers reduce manual effort while maintaining consistency across wells, projects, and scenarios.

**Discover more:** [spglobal.com/energy/element](https://spglobal.com/energy/element)



# Opening Session

**Topic:** Exploration: Shortening the Cycle from Idea to Production  
**Date:** Monday, 17 August  
**Time:** 4:30 p.m.–5:30 p.m.  
**Location:** George R. Brown Convention Center, Ballroom B  
**Fee:** Included with registration

Currently, industry takes close to 15 years on average to generate an idea, acquire the acreage, drill the discovery well and then put it into production. The later stage is responsible for a growing problem of the gap between technical success and commercial success. Going from resource collector to resource converter is one of the biggest opportunities to increase reserves and revenues. It has begun to separate the “breakaway” companies and the average ones. In looking at the steps in the exploration cycle where are the best opportunities to compress the timelines? What role will partnerships play?



**MODERATOR:**  
**Bob Fryklund**  
Chief Upstream Strategist  
S&P Global Energy



**Kevin McLachlan**  
Vice President  
Exploration  
Chevron



**Andrea Lovatini**  
Vice President for  
Exploration Data and  
Geosolutions, SLB



**John Ardill**  
Vice President Global  
Exploration  
ExxonMobil



**Aldo Napolitano**  
Exploration Director  
Eni S.p.A.

# All-Convention Luncheon

**Topic:** CEO Spotlight Dialogue  
**Speaker:** Kristian Johansen, Chief Executive Officer, TGS  
**Moderator:** Bob Fryklund, Chief Upstream Strategist, S&P Global Energy  
**Date:** Tuesday, 18 August  
**Location:** George R. Brown Convention Center, Ballroom B  
**Time:** 11:30 a.m.–1:15 p.m.  
**Fee:** \$85

Kristian has served as the Chief Executive Officer of TGS since March 2016. He joined TGS in 2010 as the Chief Financial Officer before becoming the Chief Operating Officer in early 2015. Kristian has almost 20 years of C-level experience for public companies in the construction, technology, and energy industries. Mr. Johansen also has professional experience from board positions of several public companies in Europe and the U.S., and industry associations such as the National Ocean Industries Association (NOIA) and EnerGeo Alliance (former IAGC). Currently, he is a non-executive director of two U.S. public companies, Valaris and International Seaways. Mr. Johansen earned his undergraduate and master's degrees in business administration from the University of New Mexico in 1998 and 1999.



**Kristian Johansen**  
Chief Executive  
Officer, TGS

# Special Features

## Discovery Thinking Forum

|           |                                                 |
|-----------|-------------------------------------------------|
| Topic:    | <b>Analog of Perseverance</b>                   |
| Speakers: | Multiple speakers presenting                    |
| Chairs:   | Charles Sternbach and<br>Mike Forrest           |
| Date:     | Wednesday, 19 August                            |
| Time:     | 1:20 p.m.–5:20 p.m.                             |
| Location: | George R. Brown Convention Center,<br>Room 351A |
| Fee:      | Included with full registration                 |

The Discovery Thinking Forum returns as one of IMAGE's most anticipated sessions—bringing together powerful case studies, personal insights, and the real stories behind major discoveries.

Led by chairs Charles Sternbach and Mike Forrest, this year's theme, "Analog of Perseverance," highlights four exceptional discovery journeys. Through a blend of technical depth and personal perspective, speakers will share how integrated geology and geophysics—combined with persistence, creativity, and decision-making—turn prospects into successful outcomes.

### Where Experience Meets Insight

More than a technical session, Discovery Thinking bridges the gap between theory and practice. Attendees will gain:

- Real-world perspectives on overcoming technical and business challenges
- Insights into the "art of exploration" from seasoned professionals
- Lessons that serve as powerful analogs for the next generation of geoscientists

As industry evolves, these stories remain essential, offering both inspiration and practical guidance for navigating uncertainty and driving discovery forward.

***"To discover, act like a discoverer."***

— Jack Oliver

*The 2026 "Discovery Thinking" Forum will mark the thirty first presentation of the AAPG Discovery Thinking initiative. We emphasize exemplary case studies and how integrated geology and geophysics find and develop significant discoveries. Building on our nineteen-year tradition of 100+ discoveries, this Discovery Thinking Forum will feature four extraordinary discovery presentations.*

*Speakers will discuss the philosophy of exploration, stories from remarkable careers, professional insights, colorful anecdotes, and lessons on the path to success.*



***The Brookian Topset Play of the North Slope of Alaska: The Hottest Conventional Oil Play in the World***

Speaker: William Armstrong  
Armstrong Oil & Gas, Inc.



***From Mamba to Zohr to Baleine to Geng North Discoveries: Analysing Twenty Years of Continued Exploration Success at Eni***

Speaker: Andrea Cozzi  
Eni



***Highlander — Confirmation of a Giant Gas Field in South Louisiana***

Speaker: Kevin McMichael  
Claymore Oil & Gas LP



***Missed It by That Much: A Northern Gulf of Mexico — America Look at Near Misses that Became Discoveries and the Impact for Future Exploration***

Speaker: Eric Zimmermann  
LLOG Exploration

# From Bedrock to Bottle: Geology in the Glass

**Date:** Monday, 17 August  
**Time:** 1:00 p.m.–4:30 p.m.  
**Location:** George R. Brown Convention Center, Room 310BC  
**Fee:** \$95



**Diana Khandilyan**  
Geophysicist  
Glass Nomad

Experience a one-of-a-kind wine tasting designed exclusively for the geoscience community. From Bedrock to Bottle blends premium wine exploration with the geological principles that shape some of the world's most distinctive wine regions.

Through six curated wines from around the globe, participants will taste firsthand how geology influences terroir, vine behavior, and wine character. From volcanic soils to limestone-rich terrains, each pour tells the story of the earth beneath the vineyard—and how it ultimately ends up in the glass.

This interactive and social experience combines guided tastings, geological storytelling, visual maps and imagery, and informal networking in a relaxed setting. Whether you are a wine enthusiast, a geology lover, or simply curious about the connection between earth science and agriculture, this session offers a memorable and engaging perspective on both disciplines.

- Volcanic terrains with basaltic and ash-derived soils
- Iron-rich red soils and weathered formations
- Limestone and calcareous sedimentary systems
- Granitic and metamorphic basement rocks
- Glacial, lacustrine, and alluvial deposits

Participants will explore how factors such as mineral composition, drainage, heat retention, porosity, and weathering influence vineyard development and wine expression across global wine regions.

This premium event is designed to balance education, tasting, conversation, and networking in an approachable and enjoyable atmosphere.

## Best of EAGE 2026

This session consists of the “Best of” at the 2026 EAGE Annual Conference.

**Date:** Thursday, 20 August  
**Time:** 1:20 p.m.–3:00 p.m.  
**Location:** George R. Brown Convention Center, Room 361B  
**Chairs:** Sandeep Chandola and Martin Widmaier  
**Fee:** Included with registration

### Speakers:

- **Scott Adamson** (Aker BP ASA) presenting “Integrating Regional Modelling and 4D Seismic for Predicting Pre-Production Fluid Contact Variation in Mature Basins
- **Sean Kelly** (University of Aberdeen) presenting “Bleaching Fronts as Quantitative Flow Proxies for CO<sub>2</sub> Storage in Aeolian Red Beds”
- **Michal Oleszuk** (Viridien) presenting “Using Visco-Elastic Full-Waveform Inversion to See Beneath the Gas Cloud at the North Sea Ekofisk Field”
- **Wiktor Luzinski** (University of Aberdeen) presenting “Provenance Relationships of Sandstone Intrusions and Their Depositional Parent Units”

### Rate the Speakers and Presentations



### Quick Scoring, Big Impact

1. Open the App
2. Open the Technical Program
3. Select the Session, then the Presentation
4. Select the Blue Rate Button
5. Answer the questions and click SUBMIT

# Michel T. Halbouty Lecture

**Speaker:** Kirsten Siebach, Associate Professor, Rice University  
**Date:** Wednesday, 19 August  
**Time:** 5:25 p.m.–6:15 p.m.  
**Location:** George R. Brown Convention Center, 310BC  
**Fee:** Included with registration



**Kirsten Siebach**  
Associate Professor  
Rice University

The Michel T. Halbouty lecture series—funded by the AAPG Foundation—is an ongoing special event. Lecture topics are designed to focus either on wildcat exploration in any part of the world where major discoveries might contribute significantly to petroleum reserves, or space exploration where astro geological knowledge would further mankind's ability to develop resources on Earth and in the Solar System.

## Exploring Sedimentary Basins on Mars with Curiosity and Perseverance

The Curiosity and Perseverance SUV-sized robotic explorers have been roving sedimentary basins on Mars for nearly 20 years combined. Their observations have transformed our understanding of the Red Planet and have provided millimeter-to-outcrop-scale datasets that reveal the sedimentary dynamics and geochemistry of fluviodeltaic systems on another world. Mars hosted rivers, deltas, lakes, dunes, volcanoes, and groundwater aquifers, many of which were habitable for Earth-like life. While our understanding of Earth forms the basis for Martian exploration, learning to explore in the Martian environment yields new ideas, tools, and techniques that can also inspire and improve exploration on Earth.

Dr. Kirsten Siebach is an assistant professor at Rice University, Department of Earth, Environmental, and Planetary Sciences, and describes herself as a Martian geologist. She has served on science and operations teams for five Mars surface missions, including Mars Science Laboratory Curiosity and Mars 2020 Perseverance, and has received seven NASA Group Achievement Awards for her scientific service and leadership. She was awarded the Harrison Schmitt Award from AAPG in 2023. She has authored over 50 scientific publications and 170 conference presentations on geologic findings from Mars and Earth, focusing on the intersection of igneous and sedimentary processes. She has co-authored three National Academy reports, including the Decadal Survey for Planetary Science, which advises NASA and Congress on current findings and future mission objectives. She earned her doctorate in geology at Caltech under Professor John Grotzinger and received her bachelor's degree, summa cum laude, from Washington University in St. Louis, Missouri.

# Energy Professionals Hiring Event by Career Advancement Network

**Date:** Wednesday, 19 August  
**Time:** 10:00 a.m.–2:00 p.m.  
**Location:** George R. Brown Convention Center Room 310A  
**Fee:** \$5 per person

Elevate your professional journey at IMAGE '26 by joining us for the Career Advancement Network (CAN) Hiring Event. This event connects experienced professionals with employers offering top talent for traditional roles in oil and gas and across the energy industry. For a nominal fee, you can upload your resume for advance review, receive expert volunteer support, and network your way into your next role. *Pre-registration is required.*





# Panel Sessions

Located in George R. Brown Convention Center, Room 320

**Topic:** **High-Impact Technical Leadership: Executive Decision-Making in Complex Energy Environments**

**Panelists:** Allison Kennedy Thurmond, North America Lithium in Equinor; Lorena G. Moscardelli, Bureau of Economic Geology; Marianne Rauch, LUMINA Geophysical; Patricia de Lugo, StrataImage Energy Services; Rachael Moreland, S&P Global Commodity Insights; Tai Prince, Tai Prince Designs Solutions

**Moderator:** Maria Angela Capello  
Red Tree Consulting LLC

**Date:** Monday, 17 August

**Time:** 2:30 p.m.–4:00 p.m.

**Location:** George R. Brown Convention Center, 320

**Fee:** Included with registration

Hosted by the SEG & AAPG Women's Network, this executive panel brings together accomplished women leaders from the energy, technology, and geoscience sectors to discuss how technical expertise evolves into executive leadership and strategic influence. Through a moderated discussion, panelists will share insights on decision-making in uncertain environments, AI and digital transformation, balancing innovation with long-term value creation, and developing the next generation of technical leaders. Attendees will gain practical perspectives on leading through change and expanding their impact beyond technical disciplines.

**Topic:** **State Energy and Mineral Resources Development Using Pre-Competitive Data Sets and Publications**

**Panelists:** Aaron C. Hirsch, University of Minnesota / Minnesota Geological Survey; Carrie J. Miller-DeBoer, Oklahoma Geological Survey, Mewbourne College of Earth and Energy, The University of Oklahoma; Nicole Wagoner, University of Nevada, Reno

**Moderator:** Susan Nash, AAPG

**Date:** Tuesday, 18 August

**Time:** 11:00 a.m.–11:45 a.m.

**Location:** George R. Brown Convention Center, 320

**Fee:** Included with registration

States are advancing the development of emerging energy resources by making geoscience data more accessible through pre-competitive datasets, maps, publications, and research initiatives. This panel will feature representatives from Minnesota, Oklahoma, and Nevada discussing topics including helium and hydrogen discoveries, rare earth resources, critical minerals, geothermal energy, energy storage, and other opportunities shaping the future of energy development.

**Topic:** **Exploration – How Will Technology Drive the Future?**

**Panelists:** Wadii El Karkouri, TGS; Elene Medina, SLB; Gabriel Guerra, Chevron; Allison Gilmore, S&P Global

**Moderator:** John Eastwood, Imperial Oil Resources

**Date:** Wednesday, 19 August

**Time:** 9:40 a.m.–10:20 a.m.

**Location:** George R. Brown Convention Center, 320

**Fee:** with registration

As global exploration activity gains momentum, companies are balancing new opportunities with flat budgets, lean teams, and the need to make faster acreage and drilling decisions. This panel will explore how technologies such as advanced seismic acquisition, AI, and AI agents are transforming exploration workflows, improving decision-making, and driving greater efficiency across the exploration lifecycle.

**Topic:** **Africa as a Strategic Pillar of Global Energy Security: Driving Growth Through Technology, Investment, and Strategic Partnerships**

**Panelists:** Gayle Meikle, Frontier Energy Network; Carel Hooijkaas, TGS; Thomas F. Mathias, Regions Bank; Nosa Omorodion, SLB; Chisom Onubogu, TotalEnergies

**Moderator:** Sotonye Pinnick, NPC Enserv

**Date:** Wednesday, 19 August

**Time:** 10:20 a.m.–12:00 p.m.

**Location:** George R. Brown Convention Center, 320

**Fee:** Included with registration

As global demand for secure, reliable, and sustainable energy continues to grow, Africa is emerging as a key contributor to future energy security. This executive roundtable will bring together industry leaders to discuss how technology, investment, and strategic collaboration can unlock the continent's resource potential, attract long-term capital, and accelerate energy development. Panelists will explore innovation in exploration, policy and regulatory frameworks, and practical strategies for strengthening Africa's role in the global energy landscape.



# 100

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# Geothermal Hub

Powering the future from below the surface

**Dates:** Tuesday-Thursday, 18-20 August  
**Time:** 9:00 a.m.–5:00 p.m.  
**Location:** 3rd Level



The Geothermal Hub will feature engaging content for everyone, from those just discovering geothermal to professionals who drive the industry forward. Through technical presentations, panel discussions, and case studies, the Hub will highlight the breadth of geothermal energy, from traditional geothermal applications to emerging technologies.

Topics will span the full geothermal project lifecycle, including exploration, resource characterization, drilling, development, and operations. Sessions will explore the growing synergy between oil and gas and geothermal while addressing key technical challenges such as drilling hotter wells, well construction, and subsurface performance. The Hub will also showcase recent progress across the industry and provide opportunities to connect, exchange ideas, and foster collaboration within the geoscience and energy communities.

## Companies Participating in the Geothermal Hub

- 400C
- XGS Energy
- Fervo Energy
- NOV
- SLB
- Baker Hughes
- FORGE
- GTO Technologies
- Taqa
- Halliburton
- USGS
- Pacific Northwest National Lab
- Bureau of Economic Geology, The University of Texas at Austin
- University of Nevada, Reno
- Zanskar
- Metarock Laboratories
- Quaise Energy
- Rice University
- Wintermoon Geotechnologies
- 3M
- Enverus
- Energy & Geoscience Institute (EGI) and Geothermal Strategy Partners (GSP), University of Utah
- Drill2Frac
- Geothermal Energy Advisors LLC.
- Seequent
- and more...

## Tuesday, 18 August

**Theme:** Understanding Today's Geothermal Industry

**Description:** Tuesday morning program provides insight into the current state of the geothermal industry, emerging opportunities, and the technology and development approaches shaping the future of geothermal energy.

**9:00 a.m.–9:30 a.m. Geothermal Fundamentals**

**Keynote Speaker:** Graham Bain, Principal Analyst Energy Transition Intelligence, Enverus



Geothermal energy is experiencing rapid growth driven by increasing demand for firm, low-carbon power, expanding investment, and accelerating technology development. Drawing on industry data and market intelligence, Graham Bain will provide an overview of the current geothermal landscape, highlighting key trends in project activity, technology deployment, and commercial growth. The presentation will examine where the industry stands today and the opportunities and challenges shaping its future.

**9:45 a.m.–10:45 a.m. Panel session: Geothermal development approaches**

**11:00 a.m.–12:00 p.m. Special session: Technology development for geothermal applications**

**Theme:** Closing Technology Gaps

**Description:** Tuesday afternoon programming explores where critical technology gaps in geothermal and oil and gas align, and where innovation is needed. Through a keynote address, panel discussion, and special sessions attendees will examine challenges and emerging solutions related to reservoir performance, operational efficiency, and project economics.



**1:00 p.m.–1:30 p.m. From Hydrocarbons to Geothermal: Closing Technology Gaps for Both Industries**

Keynote Speaker: Kristie McLin, Director, Research and Science (EGI), Chief Technology Officer and Co-founder (GSP), Energy & Geoscience Institute (EGI) and Geothermal Strategy Partners (GSP), University of Utah



As the energy sector looks to scale geothermal development, closing critical technology gaps will require both innovation and cross-industry learning. Drawing on experience across the oil and gas and geothermal sectors, Kristie McLin will share a unique perspective on the technical challenges shaping geothermal scale-up today, where meaningful progress is already being made, and how advances in oil and gas technology and geothermal R&D can better align to accelerate deployment.

**1:45 p.m.–2:45 p.m. Panel session: Technology and progress toward addressing fractures and natural fractures**

**3:00 p.m.–4:00 p.m. Special session: Technology and progress toward conformance and flow control**

**4:15 p.m.–5:00 p.m. Special session: Technology and progress toward project economics**

## **Wednesday, 19 August**

**9:00 a.m.–12:00 p.m.**

**Theme: Geothermal Opportunities in Sedimentary Basins**

**Description:** This session will feature a series of presentations exploring how sedimentary basins, including those with existing oil and gas development, are emerging as key targets for geothermal energy. Discussions will cover resource assessment, subsurface characterization, critical mineral extraction, and development pathways, supported by examples from active geothermal projects and basins worldwide. Attendees will gain insight into the current opportunities, challenges, and future potential for geothermal energy development in sedimentary environments.

**3:00 p.m.–3:30 p.m. WING Networking Mixer**

Come take a break between technical sessions for networking with Women In Geothermal (WING).

## **Thursday, 20 August**

**Theme: Geothermal Policy**

**Description:** This interactive discussion will bring together invited experts to share perspectives on geothermal regulation and development. Topics may include permitting, policy, collaboration, and lessons learned from advancing geothermal projects across different jurisdictions.

**1:00 p.m.–1:30 p.m. Geoscience Grand Challenges — Opportunities to Transform an Industry**

Keynote Speaker: Greg Leveille, Chief of Technology (Retired), ConocoPhillips



History shows that industries can be transformed when geoscientists and engineers challenge long-standing assumptions and unlock resources once considered uneconomic or inaccessible. As geothermal energy pursues deeper, hotter, and more complex environments, new breakthroughs in subsurface characterization, drilling, reservoir development, and heat extraction will be required. Greg Leveille's keynote will explore the grand challenges facing geothermal today and the opportunities for innovation that could redefine what is possible and accelerate the industry's growth.

**1:45 p.m.–2:45 p.m. Special session: Grand challenges and opportunities in geology**

**3:00 p.m.–4:00 p.m. Special session: Grand challenges and opportunities in geophysics**

**4:15 p.m.–5:00 p.m. Special session: Grand challenges and opportunities in geochemistry**



# Exhibit Floor Features

The IMAGE '26 exhibit hall is more than a marketplace—it is a high-energy nexus where the industry's most pressing challenges meet actionable solutions. From hands-on special exhibits and career-building opportunities to our dynamic content pavilions, every corner of the floor is designed to move ideas into action. While the technical program delivers the theory, the exhibit floor brings it to life—offering immersive, real-world perspectives from our vendors on the technologies, workflows, and innovations transforming geoscience and the broader energy landscape. Explore the features below, then dive into the pavilions to see where the industry's next breakthroughs are taking shape.

## Society Central

*Booth 2022*

Make Society Central your home base at IMAGE! Connect with AAPG and SEG, browse the SEG Bookstore, catch live Inside IMAGE Podcast interviews, and strike a pose with our roaming robot photo booth, offering instant digital photos and printed keepsakes. Don't miss the Women's Network Happy Hour (Tuesday), Young Professional & Student Networking Reception (Wednesday), and other activities throughout the week.

Connect, collaborate, and recharge in the heart of IMAGE.



## Take a Spin with Tesla

*Booth 239*

### Experience Tesla at IMAGE!

Explore the latest Tesla vehicles up close. See the technology, step inside, and take a demo drive.

**Discover innovation in motion.**

## Women's Network Meet and Greet

*In Society Central, Booth 2022*

Tuesday, 18 August  
5:00 p.m.–6:00 p.m.

Stop by Society Central and connect with fellow professionals in geoscience, energy, and technology. Swap stories, meet new faces, and build your community in a relaxed, welcoming atmosphere.

Make plans to come by early — **Kendra Scott** will be hosting a pop-up shop in Society Central from 4:00 p.m.–6:00 p.m. Browse her best-selling and new lines of jewelry, plus the popular Color Bar® by Kendra Scott.

## Next Gen Connections: Young Professional & Student Meet-and-Greet

*In Society Central, Booth 2022*

Wednesday, 19 August  
4:30 p.m.–6:00 p.m.  
Society Central, Booth #2022

Connect with fellow young professionals, students, and AAPG and SEG leaders during this informal meet-and-greet at Society Central. Hear brief words of encouragement from society leadership, participate in a casual Q&A, and expand your professional network while enjoying refreshments during the IMAGE reception.



## The Roaming Robot Photo Booth

18–19 August | 2:00 p.m.–5:30 p.m.  
20 August | 11:00 a.m.–2:00 p.m.  
Unlimited sessions. No appointment needed.

Look for IMAGE's newest attendee roaming the show floor — a sleek, mobile robotic photo booth. Strike a pose, then pick up your branded print at the Society Central Booth #2022, or get your IMAGE '26 Keepsake shot sent instantly via text, email, or QR code.

## Gathering Place

**Relax and recharge with friends and colleagues at the IMAGE Gathering Place.**  
*Booth 301*

Conveniently located in the exhibition hall, this dedicated space offers the perfect balance of serenity and opportunity. Whether you are looking for a quiet moment to decompress between sessions or an informal setting to spark meaningful conversations, the Gathering Place is designed for you. It is more than just a break; it is an ideal hub to foster new connections, catch up with industry peers, or engage in casual networking with exhibitors. Step away from the bustle, grab a seat, and let the ideas flow in this welcoming, vibrant environment.

## Next Gen Activation Zone

*Booth 410*

The Next Gen Activation Zone will be a focal point on the exhibit floor for students and young professionals to interact with hands on geoscience experiences including stratigraphic core, geophysical tools, and seismic interpretation. The zone will feature an area for students to engage with professionals and receive feedback on resumes and job searches. Local societies, universities, and energy outreach organizations will support these activities.

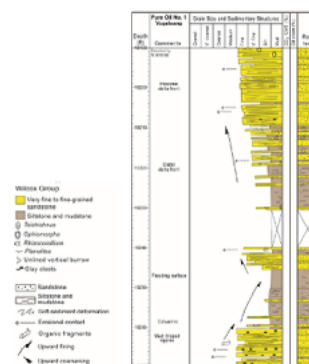
## The Bureau of Economic Geology Core Exhibition

*Hosts: Carlos Uroza, Iulia Olariu, William Ambrose, Cornel Olariu, and Peter Flaig*  
*Booth 1907*

Visit the Core Exhibits to see sandstone rocks from the Gulf of Mexico Basin, USA. Researchers from the Bureau of Economic Geology and the Department of Earth and Planetary Sciences at the University of Texas at Austin will be presenting cored intervals of the Cretaceous Fluvial Tuscaloosa Sandstone (Mississippi) and the Paleogene Wilcox Group (Colorado, Karnes, and Lavaca Counties, Texas). Key cores from the Wilcox Group will show a basinward transition from fluvial, to deltaic, to estuarine deposits, and wave-modified hyperpycnites on the shelf, as well as stacked slope channels interbedded with slope mudstone. The slope channels represent the sediment bypass into the deepwater deposits of the Wilcox Group offshore GoM. We will also show rock quality assessments to evaluate the reservoir potential of these sandstones for oil & gas, and CO<sub>2</sub> sequestration.



*Vogelsang 1 core showing interbedded sandstones and shales, passing upwards to laminated sandstones (part of a delta front succession)*



# Inside IMAGE Podcast



*Hosted by Andrew Geary*

Visit Society Central on the Exhibit Floor (Booth #2022) to join us for live tapings of Inside IMAGE, a special podcast series presented by Seismic Soundoff. Hear candid conversations with industry leaders and innovators as they dive into the science, people, and stories behind IMAGE. Don't miss this unique behind-the-scenes perspective on geoscience's most dynamic event, which can be found at [imageevent.org/podcast](https://imageevent.org/podcast).



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## Bookstore

Explore. Discover. Connect.



Browse the latest publications, best sellers, and discounted titles from SEG at Society Central in the Exhibition Hall.

Meet the minds behind the work—select authors will be on-site for book signings throughout the event. For the latest schedule and updates, download the **IMAGE app**.

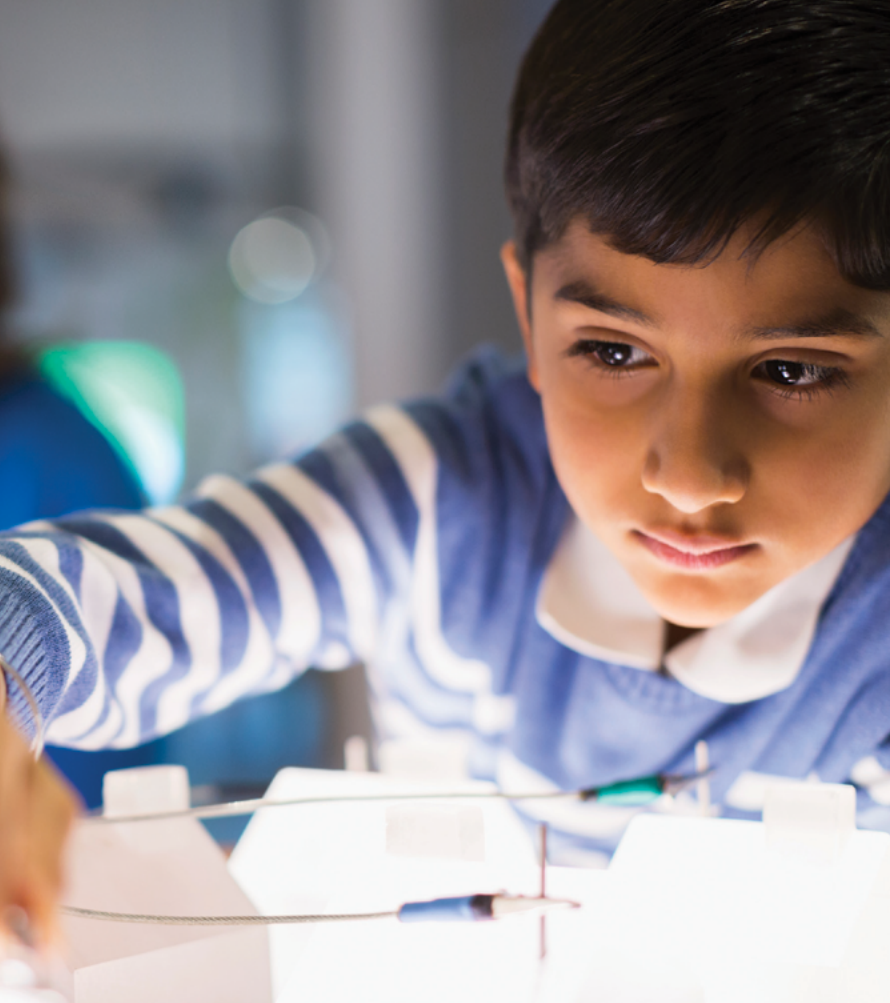
### **AUTHOR SIGNINGS:**

*Seismic Imaging through Complex Near-Surface Conditions for Oil and Gas Exploration*  
by Xianhuai Zhu and George McMechan  
Tuesday, 9:30 a.m.–10:30 a.m.

*Physics and data-driven seismic data analysis: A narrative of two approaches*  
by Mrinal Sen  
Tuesday, 3:00 p.m.–4:00 p.m.

*Using all your data: Integration of geology and geophysics*  
by Maisha Amaru  
Wednesday, 9:30 a.m.–10:00 a.m.





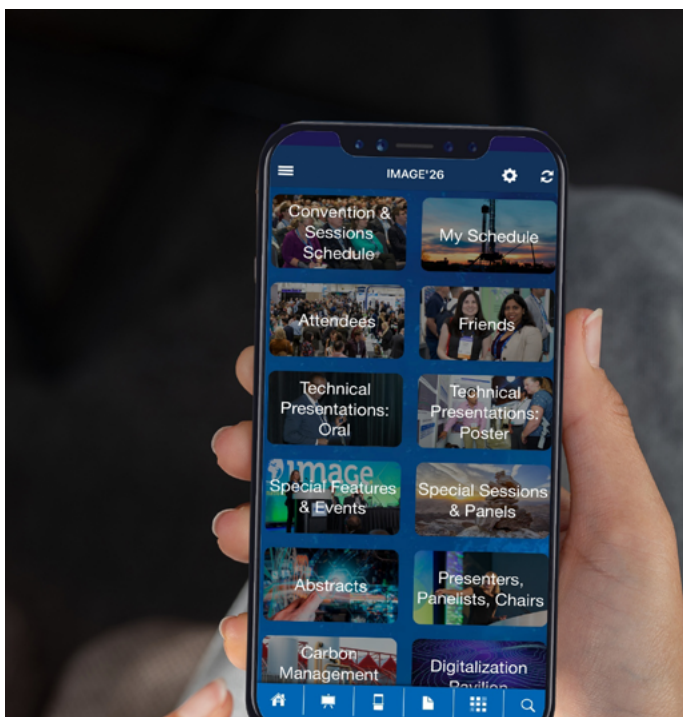
# Solving problems today and for the future

The next generation of problem solvers will build the energy system of the future. Harnessing their passion and supporting their drive will have a lasting impact on society.

At Shell in the USA, we are investing in science, technology, engineering, and math (STEM) education to develop the problem solvers needed to address the challenges we all face to deliver the energy for today and power our lives in the future.

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# Carbon Management Pavilion

## Advancing Scalable Solutions for a Lower-Carbon Future

As energy transition accelerates, geoscience is at the center of scalable carbon solutions. The Carbon Management Pavilion brings together experts, technologies, and real-world applications driving progress in CO<sub>2</sub> sequestration, geothermal energy, hydrogen systems, and subsurface storage. Explore how integrated workflows and advanced tools are enabling more efficient, data-driven approaches to managing Earth's resources. Whether you're focused on decarbonization strategies or emerging energy systems, this pavilion highlights the innovation shaping a more sustainable future.

### Tuesday, 18 August

**9:40 a.m. - 10:00** **Borehole Gravity for CCS Integrity Monitoring**  
Silicon Microgravity Limited  
Alex Crossland, Business Development Manager

**10:00 a.m.—10:20 a.m.** **To Be Determined**  
ExxonMobil | Shamik Bose

**Session Theme:** **Always-On Monitoring: DAS, Fiber, and Passive Seismic for Carbon Management**

**10:20 a.m.—10:40 a.m.** **Subsurface Data Foundation for AI and Agentic Workflows**

Petrabytes Corporation | Sashi Gunturu, CEO

**10:40 a.m.—11:00 a.m.** **Broadband Seismic Instrumentation for Cost-Effective Monitoring of Carbon Storage and other Injection Activities**

Guralp | Robert Spark, VP Sales - North America

**11:00 a.m.—11:20 a.m.** **Passive Seismic Monitoring for CO<sub>2</sub> Storage: More than just a Requirement**  
Instrumental Software Technologies, Inc. | Josh Stachnik, Chief Geophysicist

**11:20 a.m.—12:00 p.m.** **PANEL DISCUSSION**  
Panelists: Sashi Gunturu (Petrobytes), Robert Spark (Guralp), Josh Stachnik (ISTI)  
Moderator: Sean Avitt (Railroad Commission of Texas)

**Session Theme:** **From Data Chaos to Data Advantage: Managing the Modern Subsurface Estate**

**1:20 p.m.—1:40 p.m.** **Managing the Modern Subsurface Data Estate Why a Data-First Approach Matters for Energy and Carbon Workflows**

Petrosys Group | Paul Thompson, Vice President North America

**1:40 p.m.—2:00 p.m.** **From Data Chaos to Data Advantage: Managing the Modern Subsurface Estate**  
DATAVEDIK | Sunil Garg, CEO

**2:00 p.m.—2:20 p.m.** **Bringing order into chaos: the importance of SEG-Y r2.1 for Carbon Capture and Storage**  
Troika International Limited | Andrés Landa, Lead Data Scientist

**2:20 p.m.—3:00 p.m.** **PANEL DISCUSSION**  
Panelists: Paul Thompson (Petrosys Group), Sunil Garg (DATAVEDIK), Andrés Landa (Troika

International Limited)  
Moderator: Caroline Wachtman (Oxy)

**3:10 p.m.—3:30 p.m.** **Mature and Emergent Geophysical Monitoring Solutions for CCS**  
ExxonMobil | Patricia Montoya, Sr. Geoscience Advisor

**Session Theme:** **The Story of the Core: Ground Truth for Carbon Storage Systems**

**3:40 p.m.—4:00 p.m.** **Nuclear Magnetic Resonance Applications for Carbon Storage Analysis**

Green Imaging | Tuan Vo, Technical Director

**4:00 p.m.—4:20 p.m.** **Characterization of CO<sub>2</sub> Injection Targets Through Core Analysis Using Hydrocarbon Methods**

Core Laboratories | Stephen Drylie, Reservoir Engineering Manager

**4:20 p.m.—5:00 p.m.** **PANEL DISCUSSION**  
Panelists: Tuan Vo (Green Imaging), Stephen Drylie (Core Laboratories)

Moderator: Carlos Uroza (Bureau of Economic Geology, The University of Texas at Austin)

**5:00 p.m.—5:20 p.m.** **Core Viewing**

### Wednesday, 19 August

**Session Theme:** **From Acquisition to Assurance: Geophysical Data for Carbon Storage Certainty**

**10:20 a.m.—10:40 a.m.** **Enhancing the Sustainability of Seismic Acquisition for Carbon Storage Projects with eVibe Technology**

Energy Transition International, Inc. | Cesar Barajas-Olalde, Chief Geoscientist

**10:40 a.m.—11:00 a.m.** **The Nodal Shift: Dense, Agile and Low-Cost Land Seismic for CCUS**  
STRYDE | Amine Ourabah, Chief Geophysicist

**11:00 a.m.—11:20 a.m.** **Airborne Geophysical Data for Carbon Storage Certainty**  
Xcalibur Smart Mapping | Marco Nieto, Business Development Manager

**11:20 a.m.—12:00 p.m.** **PANEL DISCUSSION**  
Panelists: Cesar Barajas-Olalde (Energy Transition International, Inc.), Amine Ourabah (STRYDE), Marco Nieto (xCalibur)

**12:10 p.m.—12:30 p.m.** Moderator: Graciela Moore (Chevron)  
**NittCarbAI: Deterministic Reviewer-Support System for Class VI Permit Package Review**  
Pennsylvania State University | Ianna Gomez Mendez, Graduate Student / Research Assistant

**Session Theme:** **Intelligence at the Speed of Energy: Data, Markets, and Strategic Decisions**

**1:20 p.m.—1:40 p.m.** **Ranking Containment Risk: What to Measure Next, and Why**

TGS | Robert Bloor, Vice President of Strategic Technology

**1:40 p.m.—2:00 p.m.** **Modelling CO<sub>2</sub> Sequestration at High Resolution and Regional Scale: Cenozoic of the North Sea**  
ACT-Geo Ltd. | Rene Jonk, Director

**2:00 p.m.—2:20 p.m.** **From Concept to FID: How Data Drives Better CCUS Investment Decisions**  
Wood Mackenzie | Natasha Tyrina, Senior Analyst - US CCUS Research

**2:20 p.m.—3:00 p.m.** **PANEL DISCUSSION**  
Panelists: Robert Bloor (TGS), Rene Jonk (ACT-Geo Ltd.), Natasha Tyrina (Wood Mackenzie)  
Moderator: Stacie Gibbins (ExxonMobil)

**3:10 p.m.—3:30 p.m.** **Sustainable Data Center Siting: Using CCUS and Shallow Geothermal to Lower Carbon Emissions and Water Demand**  
GSI Environmental Inc. | Danny Kingham, Principal Hydrogeologist

**Session Theme:** **AI-Driven Interpretation for Storage Optimization and Risk Reduction**

**3:40 p.m.—4:00 p.m.** **ML and Generative AI Applications in the Subsurface**

Danomics Inc | Roland Gunther, Co-Founder

**4:00 p.m.—4:20 p.m.** **How AI can Help Identify Risks and Uncertainties in CCS Site Characterization**

Geoteric | Gustavo Espinosa, Geoscientist

**4:20 p.m.—4:40 p.m.** **Give Your AI a Geophysicist: Physics-Grade Answers for Carbon Storage**  
Mantis Geophysics Limited | Georgios Papageorgiou, CEO

**4:40 p.m.—5:20 p.m.** **PANEL DISCUSSION**  
Panelists: Roland Gunther (Danomics Inc), Gustavo Espinosa (Geoteric), Georgios Papageorgiou (Mantis Geophysics Limited)  
Moderator: Amanda Ardill (Shell)

## Thursday, 20 August

**Session Theme:** **Next-Generation Seismic Processing for CO<sub>2</sub> Monitoring**

**10:20 a.m.—10:40 a.m.** **Target-Oriented FWI: Focusing Resolution Where It Matters**

S-Cube | Christos Mavropoulos, Technology & Product Lead

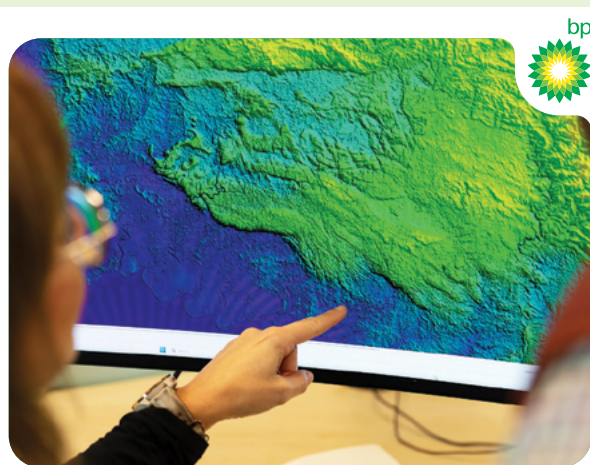
**10:40 a.m.—11:00 a.m.** **Compressive Seismic and the 4D Monitoring of CCS Projects in the Real World**

In-Depth Compressive Seismic, Inc. | Peter Eick, COO

**11:00 a.m.—11:20 a.m.** **From Seismic Amplitudes to Resource Confidence: Wave-Equation based Inversion Case Studies for CCS and Geothermal**  
Delft Inversion | Panos Doulgeris, Managing Director

**11:20 a.m.—12:00 p.m.** **PANEL DISCUSSION**  
Panelists: Christos Mavropoulos (S-Cube), Peter Eick (In-Depth Compressive Seismic, Inc.), Panos Doulgeris (Delft Inversion)  
Moderator: Camelia Knapp (Oklahoma State University)

**1:20 p.m.—3:00 p.m.** **Core Viewing**



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# Digital Pavilion

## Where Data, AI, and Geoscience Converge

Digital innovation is reshaping the future of geoscience—and this is where it comes to life. At the Digital Pavilion, explore how Agentic AI, high-performance computing, and next-generation interpretation workflows are transforming the way we discover, analyze, and produce energy resources. Through three days of expert-led panels and talks, you'll gain practical insight into how digital tools are accelerating decision-making, improving accuracy, and unlocking new efficiencies across the exploration and production lifecycle. From seismic processing to production optimization, discover how intelligent systems and specialized AI agents are redefining what's possible.

### Tuesday, 18 August

- 9:15 a.m. – 9:20 a.m. Welcome and Introduction to Day 1**
- 9:20 a.m. – 9:40 a.m. Acceleration and Innovation of E&P Activities in the Subsurface**  
Amazon Web Services | Chris Hanton, Global Product Lead - Subsurface AI Platforms
- 9:40 a.m. – 10:00 a.m. High-Performance Desktops in the Cloud: Lowering VDI Cost Without Sacrificing Performance**  
EPAM Systems | Mikhail Gurevich, Chief Technologist - Energy
- 10:00 a.m. – 10:20 a.m. Enterprise Multimodal AI for Subsurface Interpretation**  
TGS | Alejandro Valenciano, Director of Data Sciences
- 10:30 a.m. – 10:50 a.m. Azure Data Manager for Energy x Databricks: Multi-Agent Supervisor for Pre-Drill Operational Intelligence**  
Reishin Tools | Lead Energy SME
- 10:50 a.m. – 11:10 a.m. To Be Determined**  
Chevron | Patrick Kelly
- 11:10 a.m. – 11:30 a.m. Curated Data is your AI Advantage**  
Katalyst Data Management | Floyd "Trey" Broussard, CTO
- 11:30 a.m. – 12:00 p.m. PANEL DISCUSSION: Data Quality & Foundations for Agentic AI**  
Panelists: Herman Lombard (Databricks), Patrick Kelly (Chevron), Leah Camilli (Shell) Moderator: Floyd "Trey" Broussard (Katalyst Data Management)  
Moderator: Matthew Fry (KDM)
- 1:20 p.m. – 1:40 p.m. The Energy Frontier: Delivering ROI from AI**  
Microsoft | Rob Schapiro, Global Energy & Resources Partnerships Leader
- 1:40 p.m. – 2:00 p.m. Beyond the Model: Spotfire for Subsurface Decision-Making**  
Spotfire | Drew Scherer, Energy Applications Engineering Lead
- 2:00 p.m. – 2:20 p.m. AI Agents, Symbolic Computation, and Compilers to Deliver Next-Generation Simulation and Inversion Software**  
Devito Codes | Gerard Gorman, CEO
- 2:20 p.m. – 3:00 p.m. PANEL DISCUSSION: From Copilots to Autonomous Assets: Agentic AI Workflows for the Next Era of Subsurface E&P**  
Panelists: Michael O'Connell (Spotfire), Laura Bandura (Chevron); Nefeli Moridis (Nvidia)  
Moderator: Maitri Erwin (Microsoft)

- 3:40 p.m. – 4:00 p.m. From Preplot to Postplot: Optimizing Workflows for Seismic Field Operations**  
Optiseis | Andrea Crook, CEO
- 4:00 p.m. – 4:20 p.m. Time Space Lag FWI: Defining Onshore and Offshore Prospects from Scratch**  
S-Cube Technologies | Nikhil Shah, CEO
- 4:20 p.m. – 4:40 p.m. Delivering Focused eFWI Insights in 2 Months**  
ThinkOnward | Michele Isernia, Head of Strategy
- 4:40 p.m. – 5:00 p.m. To Be Determined**  
Nasuni | Coan Dillahunty, Director, Product Management

### Wednesday, 19 August

- 9:15 a.m. – 9:20 a.m. Welcome and Introduction to Day 2**
- 9:20 a.m. – 9:40 a.m. Building the Operator-Owned AI Stack: A Framework for Structuring Intelligence Across the Energy Value Chain**  
Permian Resources | Luke Fangman, Head of AI
- 9:40 a.m. – 10:00 a.m. How SME-AI Co-Creation is Disrupting Technology Paradigms**  
Chevron | R. Chadwick Holmes, Sr. Manager Technology, Data & AI
- 10:00 a.m. – 10:20 a.m. To Be Determined**  
Aspentech | Emmanuel Gringarten
- 10:30 a.m. – 10:50 a.m. Geosteering & Drilling Optimization Enabled by Amazon Leo Satellite Connectivity**  
Amazon Leo | Matthew Peteshel, Principal Technical Business Development & Olga Posopkina, Senior Enterprise Architect, Energy
- 10:50 a.m. – 11:10 a.m. Real-Time RTM Enables Well Path Optimization**  
Oxy | Chao Wang, Manager ML Imaging, Subsurface Innovation Lab
- 11:10 a.m. – 11:30 a.m. The Seismic Data Bottleneck - Unlocking the Full Value of Seismic Data for AI and Exploration**  
Nasuni | Ian Setterfield, Energy Industry Expert
- 11:30 a.m. – 12:00 p.m. PANEL DISCUSSION: Redefining Subsurface Intelligence: How Foundation Models Are Reshaping Interpretation**  
Panelists: Arvind Sharma (SLB), Alejandro Valenciano (TGS), Song Hou (Viridien)  
Moderator: Nan Ma (Amazon)
- 1:20 p.m. – 1:40 p.m. A Tech-Driven Approach to Rationalizing your Subsurface Data — Case Study**  
Cegal | Rebecca Williams, Manager Data Products Portfolio
- 1:40 p.m. – 2:00 p.m. AI-Enabled Planning to Execution for Optimal Well Placement**  
ROGII | Julian Chenin



- 2:00 p.m. – 2:20 p.m. **Optimizing the Simulation Cycle: An Evergreen Data Foundation for Reservoir Modelling**  
Viridien | Thomas Van der Looven, Project Leader
- 2:20 p.m. – 2:40 p.m. **Built to Scale: From Well to Basin with Spotfire**  
Spotfire | Daniel Pimentel, Principal Product Manager
- 2:40 p.m. – 3:00 p.m. **Data Foundation for AI and Agentic workflows with Amazon Quick for Energy**  
Petrabytes | Sashi Gunturu, CEO
- 3:40 p.m. – 4:00 p.m. **Advanced Seismic Survey Design: Geophysical Parameter Selection to Operational Readiness**  
Optiseis | Andrea Crook, CEO
- 4:00 p.m. – 4:20 p.m. **Rethinking Seismic HPC in the Cloud: From Utilization to Cost-Performance**  
EPAM Systems | Dima Kniazev, Principal, Energy Consulting
- 4:20 p.m. – 4:40 p.m. **Geoscientist in the Loop: Making AI an Ally, Not a Rival**  
S&P Global | Peace Eze, Technical Product Manager
- 4:40 p.m. – 5:00 p.m. **Rough Ground to Reliable Models: Cracking Land FWI**  
Thrust Belt Imaging | Greg Cameron, President

### Thursday, 20 August

- 9:15 a.m. – 9:20 a.m. **Welcome and Introduction to Day 3**
- 9:20 a.m. – 9:40 a.m. **To Be Determined**  
ExxonMobil | Jacob Jackson
- 9:40 a.m. – 10:00 a.m. **The Method Behind the BMADness: A Framework for Rapid Development of Agentic Subsurface Products**  
EPAM Systems | Craig Mosher, Director, Subsurface & Wells Innovation
- 10:00 a.m. – 10:20 a.m. **SEG-Y revisión 2.1: The Way Forward**  
Troika International / SEG Technical Standards Committee | Andrés Landa, Lead Data Scientist / Vice-Chair
- 10:30 a.m. – 10:50 a.m. **Rich Data to Real Decisions: How Open Data Standards Paired with Agentic AI Drive Subsurface Workflows**  
S&P Global, Inc. | Robert Long, Executive Director Product Management
- 10:50 a.m. – 11:10 a.m. **Microsoft Discovery: Re-Architecting Subsurface Earth Science Workflows for the AI Era**  
Microsoft | Karla Rios Luna, Industry Advisor
- 11:10 a.m. – 11:30 a.m. **Applying AI to Subsurface Data Archives: From Discovery to Insight with Exploration Archives**  
Petrosys Group | Paul Thompson, Vice President North America
- 11:30 a.m. – 12:00 p.m. **AI-Enabled Multi-Platform Survey Design: Modernizing Land Acquisition with OptiSeis**  
Optiseis | Andrea Crook, CEO
- 1:20 p.m. – 1:40 p.m. **Building AI-Ready Subsurface Archives at Hyperscale**  
Tape Ark | Guy Holmes, CEO
- 1:40 p.m. – 2:00 p.m. **Routing Strategies for Multi-Agent Reasoning in Energy Operations**  
Amazon | Kumar Lakshminpathi, AI Lead for Energy

- 2:00 p.m. – 2:20 p.m. **From Legacy Data to Intelligent Decisions: Building a Trusted Geoscience Information Foundation**  
Access | Gary Roy, Senior Business Development Executive, Energy & Rodney Saucedo, O&G Industry Professional
- 2:20 p.m. – 2:40 p.m. **How Should We Use Corporate Data Archives in the Age of GenAI?**  
i2k Connect | John Boden, CEO
- 2:40 p.m. – 3:00 p.m. **An Industry Standard Decision and Learning Ecosystem**  
RockNRG Consulting | Ryan Jarvis, CTO

Digital



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## Join us at the Digital Pavilion

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### Digital Pavilion Presentations

#### TUESDAY | AUG 18

Acceleration and Innovation of E&P Activities in the Subsurface (AWS)  
High-Performance Desktops in the Cloud (EPAM)  
Enterprise Multimodal AI for Subsurface Interpretation (TGS)

#### WEDNESDAY | AUG 19

Centralized Seismic Intelligence Powered by Amazon Leo (AWS)  
Panel: How Foundation Models Are Reshaping Interpretation (AWS)

#### THURSDAY | AUG 20

Multi-Agent Reasoning in Energy Operations (AWS)

Learn how Amazon AI innovation is transforming subsurface workflows, seismic interpretation, and energy operations.

Digital Pavilion is located inside the Exhibition Hall.

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# Global Energy Opportunities Pavilion

## Connecting Global Investment with Energy Innovation

Discover where the world is investing next. The Global Energy Opportunities (GEO) Pavilion offers a unique, global perspective on energy development, bringing together national oil companies, government agencies, and international stakeholders to showcase investment opportunities and strategic initiatives. Anchored by the AAPG International Pavilion, GEO provides direct access to insights on oil and gas, geothermal, critical minerals, hydrogen, and renewable energy projects—alongside the policies and partnerships driving a lower-carbon future.



**BELIZE / Ministry of Natural Resources,  
Petroleum & Mining**  
*Advancing Exploration Plays in the Corozal  
Basin*  
Ashley Middleton, Geologist



**INDIA / Directorate General  
of Hydrocarbons of India**  
*Why the East Coast of India will be the next  
Guyana*  
David Hume



**CHINA / China University of Petroleum  
(East China)**  
*Ultra-deep Petroleum Exploration in China:  
Current Status & Challenges*  
Kenu Liu



**JAMAICA / Ministry of Energy,  
Transportation & Telecommunications**  
*Energy Exploration Opportunities Offshore  
Jamaica*  
Raymond Thompson, Director of Oil & Gas



**DOMINICAN REPUBLIC / Ministry of  
Energy & Mines**  
*Investment Opportunities for Exploration &  
Production of Oil & Gas*  
Nisael Dirocie Matos, Director Exploration &  
Production of Hydrocarbons



**MOROCCO / ONHYM**  
*Revealing Morocco's Attractive Hydrocarbon  
Exploration Potential*  
Atika Karim, South Offshore Department  
Manager



**ELSALVADOR / (CEL) Comision  
Ejecutiva Hidroelectrica del Rio Lempa**  
*EL Salvador E&E: Opportunities in an  
Enhanced Legal & Fiscal Framework*  
Nikoll Mocker de Peneda, Hydrocarbon  
Contracts Analyst



**MOYES & CO**  
*Offshore Tunisia & Libya, Zarat field & Joint Oil  
Block: Development & Exploration  
Opportunity*  
Tim Wright, International Advisor



**ENVOI**  
*Global Energy Opportunities*  
Martin Riddle, Technical Director



**MOZAMBIQUE / INP**  
*Hydrocarbon Exploration Potential of  
Mozambique: From Proven Giants to Frontier  
Opportunities*  
Ezequias Matlava, Exploration Director



**GEOPARTNERS Ltd. / Global**  
*The Deep Waters of Northern Sierra Leone  
Finally Reveal their Secrets. Insights from New  
Seismic Data.*  
Jim Gulland, GeoPartners, Director  
Paul Bellingham, BGP



**NEWFOUNDLAND & LABRADOR /  
Energy & Mines**  
*Jeanne d'Arc Basin – Phase 1 & 2 Natural Gas  
Assessment*  
Jody Hodder, Manager Petroleum Geosciences



**GRENADA /**  
*Grenada: The Caribbean's Next Big  
Hydrocarbon Destination*  
Magda Vicente



**N Ventures Ltd. / Global**  
*Scaling up Frontier Exploration Across Africa,  
the new deal for Explorers*  
Peter Elliott, CEO



**NOVA SCOTIA / Nova Scotia Department of Energy**  
*Nova Scotia: Emerging Resources Development Opportunities*  
 Fraser Keppie, Manager Research, Evaluation & Innovation



**URUGUAY / Ancap**  
*Ancap's Energy Projects: Current Status & Future Outlook*  
 Natalie Blanquez, Energy Transition Team



**VENEZUELA / Pdvsa**



**PERU / PERUPETRO**  
*Oil & Gas Opportunities in Peru*  
 Ysabel Calderon, Promotions & Contracts Manager



**SOUTH AFRICA / Petroleum Agency SA**  
*Upstream Petroleum Exploration Opportunities in South Africa*  
 Bongani Sayidini, CEO



**SURINAME / Staatsolie**  
*Suriname Open-Door Offering*  
 Sharista Kalapnat-Kisoensingh, Exploration Manager



**TUNISIA / Etap**  
*Revealing Tunisia's Exploration Potential, From Regional Play Fairways to Drill-Ready Prospects*  
 Ilef Belhaj Taher, Senior Geologist

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# Near-Surface Pavilion

## Applied Geophysics: Quantifying the Shallow Subsurface

Positioned at the front of the exhibition hall, the Near-Surface Geophysics Pavilion is a dynamic hub for applied science and emerging talent. This pavilion features technical panels spanning engineering and environmental geophysics, student-focused sessions, and industry presentations, offering a comprehensive look at near-surface applications in today's evolving energy landscape. The pavilion continues to expand its programming and engagement opportunities. Be sure to check the latest schedule for new sessions and activities.

### Monday, 17 August

- 5:30 p.m.–5:40 p.m. Near Surface Geophysics**  
Laurie Whitesell, SEG
- 5:40 p.m.–5:50 p.m. Geoscientists *Without* Borders**  
Pallavi Bharadwaj, SEG
- 5:50 p.m.–6:00 p.m. SAGE**  
John Furguson, SAGE
- 6:00 p.m.–6:10 p.m. Characterizing seismicity in Guatemala**  
Steven Roche, Geophysical Consultant
- 6:10 p.m.–6:20 p.m. Low-Cost Seismic Monitoring with a Hybrid Raspberry-Shake/Broadband Array around Santa Ana Volcano, El Salvador**  
Cesar Adonay Martinez Coto, University of Memphis
- 6:30 p.m.–6:40 p.m. Searching for Unmarked Burials using Airborne Drones, GPR, and Magnetic Methods at the Historic Evergreen Cemetery, Houston, Texas**  
Yomi Ojelabi, University of Houston
- 6:40 p.m.–6:50 p.m. Long-Term Monitoring of Total Suspended Solids through Low-Cost Optical Sensors in Matagorda Bay, TX**  
Christina

### Tuesday, 18 August

- 9:00 a.m.–9:10 a.m. Near Surface Geophysics**  
Laurie Whitesell, SEG
- 9:10 a.m.–9:20 a.m. Summits on Drone Geophysics**  
Laurie Whitesell, SEG
- 9:30 a.m.–9:40 a.m. New Generation of Resistivitymeters for Imaging Below Infrastructures**  
Catherine Truffert, IRIS Instruments
- 9:40 a.m.–9:50 a.m. Modern Marine ERT and UHRS Equipment**  
Vladimir Ignatev, Geodevice Inc.
- 9:50 a.m.–10:00 a.m. eXtremer (UUHR)**  
Derion Young, Teledyne Marine
- 10:00 a.m.–10:10 a.m. GeodeFlex**  
Geometrics, Inc.
- 10:20 a.m.–12:00 p.m. Marine Construction Panel**  
Panelists: Redwanur "Rahi" Rahman, U.S. Naval Research Laboratory (NRL), Stennis Space Center; Shane Smith, Fugro; Rodolfo Sancio, Geosyntec Consultants Inc.; Bill Bruin, Simpson Gumpertz & Heger Inc.  
Moderator: Tony Shaw, Collier Geophysics
- 12:00 p.m.–1:00 p.m. Near Surface Business Meeting**
- 1:20 p.m.–3:00 p.m. AI and ML for Mineral Exploration Panel**  
Panelists: Mason Dykstra, MinersAI; Xiaolong Wei, University of British Columbia; Emily King, Prospector and Global Venture Consulting  
Moderator: Alexandra Price, Viridien
- 3:20 p.m.–3:30 p.m. SAGE**  
John Furguson, SAGE
- 3:30 p.m.–3:40 p.m. Advanced 3D ERT & IP Equipments for Mineral Exploration**  
Catherine Truffert, IRIS Instruments
- 3:40 p.m.–3:50 p.m. Modular Transmitter Systems for Geophysical Exploration**  
Stefan L. Helwig, ZONGE International
- 3:50 p.m.–4:00 p.m. To Be Determined**  
Laura Quigley, Seequent

Near-Surface



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## Wednesday, 19 August

- 9:00 a.m.–9:10 a.m. Near Surface Geophysics**  
Laurie Whitesell, SEG
- 9:10 a.m.–9:20 a.m. Summits on Drone Geophysics**  
Laurie Whitesell, SEG
- 9:20 a.m.–9:30 a.m. Overhauser vsesium Magnetometers in UAV Surveys**  
Vladimir Ignatev, Geodevice Inc.
- 9:30 a.m.–9:40 a.m. Sisprobe – Passive Seismic Services**  
Dan Hollis, Sisprobe
- 9:40 a.m.–9:50 a.m. Teledyne Overview**  
Shawn Rice, Teledyne Marine
- 9:50 a.m.–10:10 a.m. Arce Geofisicos**  
To Be Determined
- 10:20 a.m.–12:00 p.m. Access and Culture Panel**  
Panelist: Christine Downs, Sandia National Laboratories; Kristopher Innanen, University of Calgary; Ge Jin, Colorado School of Mines; Nikki Morris, Texas Christian University  
Moderator: Rocco (Rocky) Detomo, President-Elect, SEG
- 12:00 p.m.–1:00 p.m. Hydrogeophysics Meeting**
- 1:20 p.m.–3:00 p.m. Near Surface Geophysics Field Practices Panel**  
Panelists: Brad Carr, University of Wyoming Near-Surface Geophysics Instrument Center (UWNSG); Lee Slater, Rutgers University; Nicole Pendrigh, Collier Consulting; Steve Sloan, US Army Engineer Research & Development Center  
Moderator: Bart Hoekstra, Geometrics
- 3:10 p.m.–3:20 p.m. GeodeFlex**  
Geometrics, Inc.
- 3:20 p.m.–3:30 p.m. Crosshole Seismic Tomography for Mining and Construction Sites**  
Vladimir Ignatev, Geodevice Inc.
- 3:40 p.m.–5:10 p.m. Sustainable Groundwater and Water Security Panel**  
Panelists: Craig Ulrich, Lawrence Berkeley National Laboratory; Guoquan Wang, HoustonNet | University of Houston; Jared Abraham, Aqua Geo Frameworks, LLC  
Moderator: Doug Laymon, Collier Geophysics
- 5:20 p.m.–5:40 p.m. Geophysical Investigation of Quick Clay Landslides in Southwest Sweden**  
Emmanouil Konstantinidis, Uppsala University
- 5:40 p.m.–6:00 p.m. Terra Scope: Aquifer Identification and Hydrogeological Hazards in the Menoreh Hills Region**  
Dimas Aziz Putra Alamsyah, Universitas Indonesia

## Thursday, 20 August

- 9:00 a.m.–9:10 a.m. Near Surface Geophysics**  
Laurie Whitesell, SEG
- 9:10 a.m.–9:20 a.m. Summits on Drone Geophysics**  
Laurie Whitesell, SEG
- 9:50 a.m.–10:00 a.m. eXtremer (UUHR)**  
Derion Young, Teledyne Marine
- 10:20 a.m.–12:00 p.m. Near Surface Aspects of Geothermal Energy Panel**  
Panelists: Danny Feucht, Ormat Technologies, Inc; Jonathan Ajo-Franklin, Rice University; Nicole Wagner, Great Basin Center for Geothermal Energy; Paul Schwering, Pacific Northwest National Laboratory (PNNL); Shari Kelley, New Mexico Tech  
Moderator: Elizabeth Cambre
- 12:00 p.m.–1:00 p.m. Engineering Geophysics Subcommittee Meeting**
- 1:20 p.m.–3:00 p.m. Near Surface Student Career Panel**  
Panelists: Paul Schwering, Pacific Northwest National Laboratory (PNNL); Kennedy Doro, University of Toledo; Zohreh Abbasi Hafshejani, University of Toledo  
Moderator: Christine Downs, Sandia National Laboratories



# BEYOND GEOPHYSICAL PROSPECTING

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As a leading geophysical provider and a responsible partner, BGP delivers fully integrated, end-to-end geophysical services and proprietary technologies for the energy industry, while moving toward a greener and more sustainable future.

# New Technology Showcase

**Dates:** Tuesday, 18 August–Wednesday, 19 August

**Time:** 2:00 p.m.–5:00 p.m.

**Location:** Room 310, 3<sup>rd</sup> Level

We invite you to apply to participate in a focused, content-rich New Technology Showcase designed for upstream professionals looking to stay at the forefront of innovation.

## The structured sessions include:

- Panel discussions focusing on technology development, women in technology, and new directions in AI
- Presentations by emerging technology developers and service providers

## Topics covered include:

- Advanced Visualization Techniques
- Co-production of critical minerals, geothermal, lithium, and helium
- Bitcoin mining and other uses for low-volume natural gas
- Reservoir Fluids Modeling
- Reservoir Characterization
- Wellsite communications technologies
- Advanced Analytics
- Generative AI and Large Language Models for Subsurface Energy
- Refracturing (Refracs)
- Microgrids
- Drilling Innovations
- Real-Time Monitoring & Sensor Technologies
- Completion Techniques
- Drilling Fluids
- Geothermal Co-Production

These advancements are driving down costs, improving asset recovery, and improving asset optimization.

If you are an operator, technology scout, engineer, or innovator, this is your opportunity to engage directly with the technologies reshaping the upstream sector.

To learn more and apply for speaking opportunities, contact Susan Nash at [snash@aapg.org](mailto:snash@aapg.org).

## Tuesday, 18 August

**Title:** **From Pilot to Profit: Navigating the Tech Adoption Gauntlet**

**Time:** 2:00 p.m.–2:30 p.m.

**Panelists:** Kelsey Kearns, Head of Greentown Houston, Greentown Labs; Nikhil Sonthaliya, Director, Oil and Gas, Darcy Partners; Anu Chandran, Principal Research Geophysicist, Shell India Markets Private Limited, Prateek Patel, Technology Scout, ExxonMobil

Join this team of high-impact panel of technology scouts, early adopters, and new technology growth experts to dissect the DNA of successful innovation. Our panelists will share real world experiences, highlighting the critical ingredients that separate scalable solutions.

**Title:** **The Edge of Innovation: The Women Driving Energy Tech's Next Wave**

**Time:** 2:30 p.m.–3:00 p.m.

**Panelists:** Andrea Crook, President, Optiseis; Kim McLean, NORAM Solutions Consultant for Formation Evaluation, AspenTech; Celeste Chesser, Senior Marketing Manager, ThinkOnward; Sonia Hernandez-Cordon, Manager Marketing and Business Development, Equinor US

This panel of innovative women leaders focuses on how collaborative team-building and strategic alliance-forging can accelerate the pace of innovation. From navigating the technical hurdles to fostering partnerships these experts will share how their distinct approaches to team-building, mission and vision development, communication and risk-sharing lead to more resilient technologies and faster commercial adoption.

## Individual Presentations

- 3:00** **Generative AI for CO<sub>2</sub> Storage Monitoring and Uncertainty Quantification** | Chenyu Zhou and Yueqin Huang, University of Houston
- 3:15** **HXXM: Automated Formation Top-Picking and Depth** | Alan Lindsey, HXXM
- 3:30** **From GeoGPT to OneEarth** | Zhiqiang Feng, Zhejiang Labs

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New Technology Showcase



- 3:45**     **A New Era of Subsurface Workflows Powered by Agentic AI** | Sasan Ghanbari, AspenTech
- 4:00**     **ProdVediK** | Sunil Garg, DataVedik
- 4:15**     **VibeResearch** | Yitian Xiao, GeoGPT
- 4:30**     **Innovation Lab** | Celeste Chesser, ThinkOnward
- 4:45**     **The Polygon Is the Prompt: How Geospatial AI Is Accelerating Energy Exploration** | John Skero, GeoIntelX

## Wednesday, 19 August

**Title:**        **The Pilot Bridge: Strategic Onramps to Commercial Adoption**

**Time:**        2:00 p.m.–2:30 p.m.

**Panelists:**   Ken Pfau, Vice President of Geoscience, Devon; Saptarshi Dasgupta, Oil, Gas, and Chemicals Executive, EY; Amandine Battentier, Technology Engineering, Global Modeling and Simulation Manager, SLB; Allison Gilmore, Director of Product Management, R&D Energy Software, S&P Global

This session tackles the two most critical transitions in the technology lifecycle: securing the initial “yes” and bridging the gap to long-term usage. Our panel will discuss how to identify the right internal champions—beyond just the technical scouts—who have the operational mandate to greenlight proof-of-concept (POC) trials and adoption in their operations.

**Title:**        **Foundation First: Building the Data Architecture That Actually Powers AI**

**Time:**        2:30 p.m.–3:00 p.m.

**Panelists:**   Shuxing Cheng, Principal AI Scientist, Chevron; Yitian Xiao, Subsurface Data Scientist, Zhejiang Labs; Sashi Gunturu, President - CEO, Petrabytes; Ben Lasscock, Director Digital Data Innovation, TGS

The discussion will explore the practical challenges of transforming disparate, multi-generational data into a cohesive asset that supports reliable decision-making. Join us to learn how industry leaders evaluate a company’s data readiness and why a disciplined approach to data governance is the most important predictor of long-term success for any digital initiative.

### Individual Presentations

- 3:00**     **Emerging Seismic Attributes and Machine Learning Workflows from the AASPI Consortium** | Heather Bedle, April Moreno, and Choudry Noor, University of Oklahoma - AASPI Consortium
- 3:15**     **EY’s POV on Subsurface Transformation** | Catherine Oster, EY
- 3:30**     **Spotfire Copilot** | Michael O’Connell, Spotfire
- 3:45**     **Xrathus DXP** | Rekha Patel, Xrathus
- 4:00**     **BoundaryRSS** | Holden Nash, BoundaryRSS
- 4:15**     **New Imaging Technology and India’s New Superbasin** | David Hume, University of Houston
- 4:30**     **Horizon AI: Accelerating Seismic Interpretation with Deep Learning-Guided Horizon Tracking** | Anat Canning, AspenTech
- 4:45**     **UP42 Earth Observation Platform** | Travis Schindler, UP42
- 5:00**     **Subsurface360: Layered Intelligence for Building Capability** | Rachel Scully, Visiv

# Field Trips

Learn in an experiential way by participating in one of the IMAGE '26 field trips. Whether it be a study of coastal processes or participating in a hands-on GWB project, you are sure to make life-long connections while you gain new knowledge. To ensure you can maximize your schedule, we have designed these offerings for your total convenience:

- **Before the Convention:** Join us for FT-01 or FT-02 to kick off your IMAGE experience.
- **After the Convention:** Extend your trip and gain further insights by participating in FT-03.

| FT #  | Title                                                                                                                                   | Leader(s)                                                                                                            | Date / Time                              | Fees                                           |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|------------------------------------------|------------------------------------------------|
| FT-01 | Texas Coastal Processes – Brazos River Delta to Galveston Island (SEPM)                                                                 | Dr. Erik Scott (Rice University and Vecta Oil & Gas)                                                                 | Sunday, 16 August<br>8:00 a.m.–6:00 p.m. | Professional: \$350<br>Student: \$75 (limited) |
| FT-02 | Building Coastal Resilience and Habitat Stability in Matagorda Peninsula–A Geoscientists <i>without Borders</i> ® Initiative (SEG/AAPG) | Brandee Carlson and Shuhab Khan (University of Houston)                                                              | Sunday, 16 August<br>8:00 a.m.–6:00 p.m. | Professional & Student: \$250                  |
| FT-03 | From Grains to Models: Modern Texas Coast Analogs to Understand Sub Seismic Reservoir Heterogeneity (AAPG)                              | Dario Harazim (ExxonMobil), Julia Wellner (University of Houston), and Rob Wellner (ExxonMobil Low Carbon Solutions) | Friday, 21 August<br>8:00 a.m.–5:00 p.m. | Professional: \$150<br>Student: \$50 (limited) |



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# A Brighter Future is Possible.

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Meeting the world's evolving needs in energy, resources, the environment, and the subsurface will require new knowledge, stronger research, and a prepared generation of geoscientists.

Yet the programs, resources, and opportunities that make this possible are under growing pressure. Educational programs are contracting, research capacity is declining, and formative learning experiences are disappearing. Without decisive action, some may be lost entirely.

The AAPG Foundation is stepping forward with a \$25 million capital campaign to strengthen the people, programs, and ideas that will carry geoscience forward. Thanks to the generosity of our early supporters, we have already reached approximately 20% of our goal.

That progress gives us reason for optimism. But a brighter future is possible only if the geoscience community comes together now. Now is the moment that matters.

**Your Support Will Make an Impact.**  
Visit [Campaign.AAPGFoundation.org](http://Campaign.AAPGFoundation.org)



# Student Events

## Sunday, 16 August

### SEG/Chevron Student Leadership Symposium (SLS) Day 1

*(by invitation only)*

Marriott Marquis Houston

Houston Ballroom 1/2/3

10:00 a.m.–6:00 p.m.

## Monday, 17 August

### SEG/Chevron Student Leadership Symposium (SLS) Day 2

*(by invitation only)*

Marriott Marquis Houston

Houston Ballroom 1/2/3

8:00 a.m.–4:00 p.m.

### AAPG Imperial Barrel Award (IBA) Global Finals and Ceremony

*(by invitation only)*

Murphy Oil (9805 Katy Fwy

Houston, TX 77024)

8:00 a.m.–2:00 p.m.

### Early Career Networking Reception

*(by invitation only)*

George R. Brown Convention Center

Avenida Balcony, Level 2

6:30 p.m.–8:00 p.m.

## Tuesday, 18 August

### SEG Challenge Bowl

Marriott Marquis Houston

Houston Ballroom 5/6

8:00 a.m.–10:00 a.m.

### Early Career Speed Mentoring

Marriott Marquis Houston

Houston Ballroom 2/3

3:00 p.m.–5:00 p.m.

## Wednesday, 19 August

### SEG EVOLVE

George R. Brown Convention Center

Room 332

8:00 a.m.–5:00 p.m.

### SEG Field Camps

George R. Brown Convention Center

Near-Surface Pavilion

5:20 p.m.–6:00 p.m.

### Next Gen Connections: Young Professional & Student Meet-and-Greet

Society Central (Booth #2022)

4:30 p.m.–6:00 p.m.



## Thursday, 20 August

### Applied Sciences Educational Program (ASEP)

George R. Brown Convention Center

Room 332

8:00 a.m.–1:00 p.m.

# SEPM Activities at IMAGE

## SEPM Research Group Meetings

|                                              |                               |                  |
|----------------------------------------------|-------------------------------|------------------|
| SEPM Carbonate Research Group                | Tuesday, 7:00 p.m.–10:00 p.m. | GRBCC, Room 381B |
| SEPM Sedimentary Petrology Research Group    | Tuesday, 7:00 p.m.–10:00 p.m. | GRBCC, Room 381A |
| SEPM Micropaleontology Research Group - NAMS | Tuesday, 7:00 p.m.–10:00 p.m. | GRBCC, Room 381C |
| SEPM Deep Water Deposition Research Group    | Tuesday, 7:00 p.m.–10:00 p.m. | GRBCC, Room 371A |

## SEPM Field Trip and Short Courses

Be sure to check out the trip and courses offered for this convention. Students should know that there are limited discounted student seats in each course.

## Visit [SEPM.org](https://www.sepm.org) for updates





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# Short Courses

IMAGE '26 short courses bridge the gap between traditional geosciences and emerging energy technologies. Covering critical industry topics, these sessions provide the specialized training students and seasoned professionals need to stay ahead.



| SC #  | TITLE                                                                                                     | INSTRUCTOR(S)                                                                       | DATES   TIME                                                   | LOCATION                                   | FEES                                             |
|-------|-----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----------------------------------------------------------------|--------------------------------------------|--------------------------------------------------|
| SC-02 | Using All Your Data: Integration of Geology and Geophysics (SEG DISC)                                     | Maisha Amaru, Chevron                                                               | Sunday, 16 August<br>8:00 a.m.–5:00 p.m.                       | GRBCC 352B                                 | \$325 Member<br>\$455 Nonmember<br>\$80 Student  |
| SC-03 | Theory and Practice of Large Language Models for the Geoscientist (SEG)                                   | Gerard T. Schuster, University of Utah                                              | Sunday, 16 August<br>8:00 a.m.–5:00 p.m.                       | GRBCC 352C                                 | \$500 Member<br>\$650 Nonmember<br>\$200 Student |
| SC-06 | Sequence Stratigraphy: Concepts, Workflows, and Applications (SEPM)                                       | Vitor Abreu, Consultant; Rene Jonk, Consultant                                      | Sunday, 16 August–<br>Monday, 17 August<br>8:30 a.m.–4:00 p.m. | GRBCC 381A                                 | \$600 Professional<br>\$230 Student              |
| SC-09 | Mastering AI at Work (AAPG)                                                                               | Yogashri Pradhan, IronLady Energy Advisors                                          | Monday, 17 August<br>8:00 a.m.–5:00 p.m.                       | GRBCC 352D                                 | \$575 Professional<br>\$200 Student              |
| SC-10 | Fundamentals of Seismic Attributes and Attribute-Driven Machine Learning for Seismic Interpretation (SEG) | David Lubo-Robles and Kurt Marfurt, University of Oklahoma                          | Monday, 17 August<br>8:00 a.m.–5:00 p.m.                       | GRBCC 352F                                 | \$500 Member<br>\$650 Nonmember<br>\$200 Student |
| SC-11 | Full-Waveform Inversion in Practice: Black Box or Pandora's Box? (SEG)                                    | Laurence Letki, DUG Technology                                                      | Monday, 17 August<br>8:00 a.m.–5:00 p.m.                       | GRBCC 352E                                 | \$500 Member<br>\$650 Nonmember<br>\$200 Student |
| SC-12 | Economic Analysis and Decision Modeling (SEG)                                                             | Kamal Malick, Anschutz Exploration Corporation                                      | Monday, 17 August<br>8:30 a.m.–4:00 p.m.                       | GRBCC 352C                                 | \$400 Member<br>\$450 Nonmember<br>\$150 Student |
| SC-14 | Seismic Stratigraphy and Geomorphology for Graduate Students (SEPM)                                       | Kenn Ehman, Selen Esmeray-Senlet, Andrea Lisi, Shann Khan, and Chad Holmes, Chevron | Monday, 17 August<br>8:30 a.m.–5:00 p.m.                       | SLB Training Center<br>10001 Richmond Ave. | \$50 Students Only                               |

## Follow us on social media

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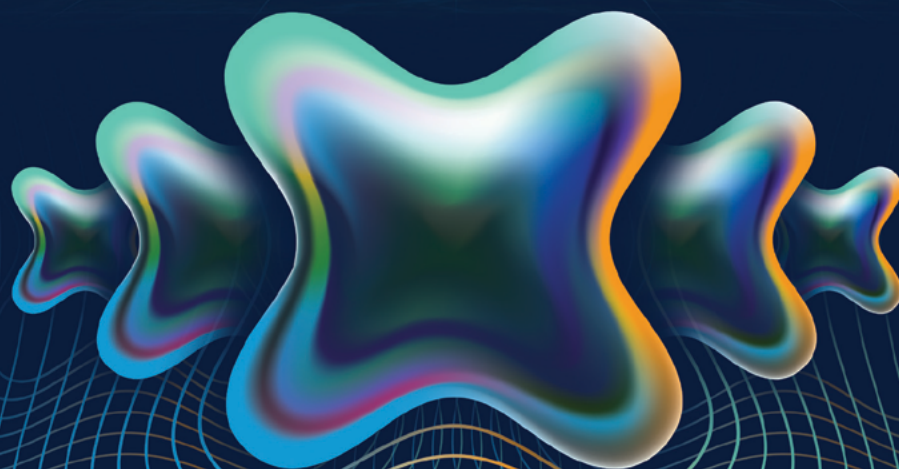


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# Postconvention Workshops

Cap off a productive week at IMAGE by attending one (or more!) of the 18 Postconvention Workshops, all happening Friday, 21 August. These workshops cover a wide range of timely and technical topics designed to deepen your expertise.

**Pricing:**

- \$155 – SEG/AAPG Members
- \$275 – Nonmembers
- \$55 – Student Members
- \$75 – Student Nonmembers



Registration includes access to any or all workshops, space permitting.

| W #  | WORKSHOP TITLE                                                                               | LOCATION        | TIME                 |
|------|----------------------------------------------------------------------------------------------|-----------------|----------------------|
| W-1  | 4D FWI for Reservoir Monitoring                                                              | GRBCC Room 351A | 8:30 a.m.–12:00 p.m. |
| W-2  | Agentic AI and Large Language Models (LLMs) in Geophysical Applications                      | GRBCC Room 362A | 8:30 a.m.–12:00 p.m. |
| W-3  | AI Applied to Mining Geophysics                                                              | GRBCC Room 372A | 8:30 a.m.–12:00 p.m. |
| W-4  | Applying lessons learned from Oil & Gas Geophysics to Energy Transition Challenges           | GRBCC Room 361B | 8:30 a.m.–5:00 p.m.  |
| W-5  | Automated Mineral Classification: Transforming Mineralogy into Operational Intelligence      | GRBCC Room 372B | 8:30 a.m.–12:00 p.m. |
| W-6  | Autonomous Energy Geoscience: Digital Twins, Physics-Informed AI, and Intelligent Automation | GRBCC Room 362A | 1:30 p.m.–5:00 p.m.  |
| W-7  | Combined Active and Passive Seismic Monitoring of Subsurface Processes                       | GRBCC Room 370B | 8:30 a.m.–12:00 p.m. |
| W-8  | Critical Minerals and Rare Earth Elements (REEs): Technologies and other Considerations      | GRBCC Room 372A | 1:30 p.m.–5:00 p.m.  |
| W-9  | Elastic Multi-parameter FWI: Where are we?                                                   | GRBCC Room 362B | 8:30 a.m.–12:00 p.m. |
| W-10 | FWI Hackathon Showcase                                                                       | GRBCC Room 360B | 1:30 p.m.–5:00 p.m.  |
| W-11 | Geophysical Models of Magmatic and Amagmatic Rifted Continental Margins                      | GRBCC Room 371B | 8:30 a.m.–5:00 p.m.  |
| W-12 | Key Business and Technology Enablers and Barriers of the Geothermal Industry in 2026         | GRBCC Room 360B | 8:30 a.m.–12:00 p.m. |
| W-13 | Low-cost Monitoring for Oil and Gas Production and Emerging Energies                         | GRBCC Room 372C | 1:30 p.m.–5:00 p.m.  |
| W-14 | Optical fibers: What is next? Acquisition, Data, and Products                                | GRBCC Room 351A | 1:30 p.m.–5:00 p.m.  |
| W-15 | Seismic Signal Processing in the AI Era: Integration or Replacement?                         | GRBCC Room 372C | 8:30 a.m.–12:00 p.m. |
| W-16 | Subsurface Integration: What’s Working, What’s Missing, and What Can We Change?              | GRBCC Room 362B | 1:30 p.m.–5:00 p.m.  |
| W-17 | Surface to Subsurface: Drone-Enabled Analog Studies for Reservoir Characterization           | GRBCC Room 372B | 1:30 p.m.–5:00 p.m.  |
| W-18 | The Role of Seismic Gathers in the Era of FWI                                                | GRBCC Room 370B | 1:30 p.m.–5:00 p.m.  |

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# Technical Program Information

The technical program features over 1,100 high-quality presentations across 280 diverse sessions, including 31 special sessions. Geoscience professionals from all disciplines and regions will share their latest case studies, technological innovations, and research findings. The technical program begins Tuesday at 8:00 a.m. and runs through Thursday at 4:50 p.m. Postconvention workshops will immediately follow, taking place in the technical session area all day Friday.

As part of tradition, 18 postconvention workshops will be offered on Friday, 21 August, including 16 half-day workshops and 2 full-day workshops.

## Meet and Greet

Speakers and session chairs are requested to arrive at their session room at least 30 minutes before the session begins to participate. This informal gathering provides an opportunity to meet your session chairs and fellow speakers in advance, ensuring a smooth and well-coordinated session.

## Rate the Speakers and Presentations

Download the “IMAGE Events” mobile app to evaluate Technical Program presentations. Locate the presentation and select “Rate Presentation.” Evaluation questions will appear after the conclusion of the presentation.



## Special Sessions

These dedicated special sessions will be offered to complement the technical program:

- Advances in Next-Gen Geothermal: Geologic Insights from Active Projects
- Advancing Near-Surface Imaging and Characterization through New Hardware and Algorithms
- Agentic Artificial Intelligence for Geoscience: Principles and Case Studies
- Best of EAGE 2026
- Best of SEG Honorary Lecturer's
- Building the Exploration Company of the Future
- Challenges and Solutions: The Current State of Geoscience Education, Industry Needs and Society Impacts
- Critical Minerals Economy: Strategy, and Finance
- Discovery Thinking: Analogs of Perseverance 1
- Discovery Thinking: Analogs of Perseverance 2
- Exploration Hot Spots: Technical and Commercial Challenges
- Exploration, Mineral Science and Mining of the Moon, Mars, and Asteroids
- Geologic Hydrogen Exploration and Production 1
- Geologic Hydrogen Exploration and Production 2
- Geoscientists *without* Borders: Seismic Safety and Coastal Stewardship
- Geoscientists *without* Borders: Water Security
- Geothermal Resource Exploration and Characterization
- History of Petroleum Geosciences 1
- History of Petroleum Geosciences 2
- Near Surface Geophysics and the Human-Impacted Environment 1
- Near Surface Geophysics and the Human-Impacted Environment 2
- New Instrumentation: In Honor of José (Pepo) Arce
- Novel Passive Seismic Case Studies
- Optical Fiber: The value of Optical Measurement: Lessons Learned and Way Forward
- Recent Advances and the Road Ahead: Global Search for High Impact Frontier Plays: Basins, Technologies, and Pathways to Value
- Recent Advances and the Road Ahead: The Energy Evolution in Action: Geoscientists Driving Innovation 1
- Recent Advances and the Road Ahead: The Energy Evolution in Action: Geoscientists Driving Innovation 2
- Resource Quantification and Assurance 1
- Resource Quantification and Assurance 2
- SEPM Research Symposium: Critical Minerals and Geothermal Energy in Sedimentary Systems 1
- SEPM Research Symposium: Critical Minerals and Geothermal Energy in Sedimentary Systems 2

## Posters

The poster program has been expanded for the third year to include poster sessions on the 3rd floor, alongside the oral presentations. This enhancement allows for more presentations and makes it easier for attendees to view posters aligned with the same themes as the oral sessions and those in the exhibition hall.

There is no fixed presentation time for posters at IMAGE. Poster presenters are asked to remain at their station for the entire session block, including the refreshment break, to engage with attendees and Session Chairs.

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Douglas Wyatt

Drew Eddy

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Emily McGinnis

Erin Pemberton

Esther Oyedele

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Femi Esan

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Joel Le Calvez

Jonathan Stewart

Jose de Vera

Joshua Pwavodi

Julie Bloxson

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Yanwei Zhang

Yaoguo Li

Yi Shen

Yi Xie

Yingcai Zheng

Yueqin Huang

Zhehao Li

Zhigang Zhang

# Top Presentations at IMAGE 2025

## Geophysical Technology

### Best Co-Oral

**Paper Title:** Breaking the Subsalt Image Resolution Barrier: Insights from an Ultra-High Density Deepwater Ocean Bottom Nodes Experiment in Thunder Horse, GoA  
**Byline:** Ganyuan Xia, John Etgen, Zhehao Li (bp)  
**Speaker:** Ganyuan Xia

### Best Co-Oral

**Paper Title:** Bright spot in borehole acoustic reflection imaging: Theoretical modeling and field application  
**Byline:** X.M. Tang, W.H. Wang, H.M. Wang, and K.Y. Zheng (China University of Petroleum (East))  
**Speaker:** Xiaoming Tang

### Best Poster

**Paper Title:** GAN-Based Seismic Horizon Tracking  
**Byline:** Wenhao Zhen, Rebecca Bell, Lluís Guasch, Carlos Cueto, Polina Pasalska, Yanghua Wang (Imperial College London)  
**Speaker:** Wenhao Zheng

## Geological Technology

### Best Oral

**Paper Title:** Controls and predictions of oil accumulations and column heights in gas dominated petroleum systems  
**Byline:** Lukasz Krawczynski (Top Down Petroleum Systems Analysis) and Martin Neumaier (ArianeLogix)  
**Speaker:** Lukasz Krawczynski

### Best Poster

**Paper Title:** Anomalous hydrogen and noble gas isotope trends in thermally overmature Marcellus Formation natural gases, Allegheny structural front, North-Central Appalachian orogen USA  
**Byline:** Christopher D. Laughrey and Myles Moore (Stratum Reservoir), Evelyn Hudson and David Vance (Formentera Operations)  
**Speaker:** Christopher Daniel Laughrey

## Regional Themes

### Best Oral

**Paper Title:** Appraisal while developing - Payara field, offshore Guyana: Derisking secondary resources via development drilling and early flowback to accelerate reservoir production  
**Byline:** Jacob Violet, Mimi Do, Ryan Ruppert (ExxonMobil Upstream Company)  
**Speaker:** Jacob Andrew Violet

### Best Poster

**Paper Title:** Salt-Water Disposal Associated Seismicity in a Proterozoic Fold and Thrust Front, Delaware Basin, New Mexico  
**Byline:** Carlos J. Lopez<sup>1</sup>, Elizabeth Horne<sup>2</sup>, Josimar Alves Da Silva Jr<sup>1</sup> and Stefan Hussenöeder<sup>1</sup>, (1. ExxonMobil Upstream; 2. The University of Texas at Austin)  
**Speaker:** Jose Lopez

## Geoscience

### Best Oral

**Paper Title:** Leveraging geological data to construct training models for supervised deep learning inversion  
**Byline:** Xiaolong Wei<sup>1,2</sup>, Jiajia Sun<sup>1</sup>, Ji'en Dong<sup>3,4</sup>, Rui Guo<sup>5,6</sup>; (1. University of Houston; 2. Stanford University; 3. China University of Geosciences; 4. Geological Survey Bureau of Qinghai Province; 5. Tsinghua University; 6. Weizmann Institute of Science)  
**Speaker:** Xiaolong Wei

### Best Poster

**Paper Title:** Hydrogen Generation and Reactivity in Organic-Rich Sedimentary Rocks  
**Byline:** Jagoš R. Radović, Poorna Srinivasan, Qi Fu, Yingcai Zheng, (University of Houston); Yulun Han (Texas A&M University-San Antonio)  
**Speaker:** Jagos Radovic

## Students

### Best Student Poster

**Paper Title:** Geochemical Signatures of the Mowry Shale: Insights into Its Unconventional Reservoir Potential  
**Byline:** B. Taylor<sup>1</sup>, S. M. Hudson<sup>1</sup>, B. Greenhalgh<sup>2</sup>, A. Toner<sup>1</sup>, M. Kartchner<sup>1</sup>; (1. Brigham Young University, 2. Enbridge Gas)  
**Speaker:** Brad Taylor

### Best Student Poster

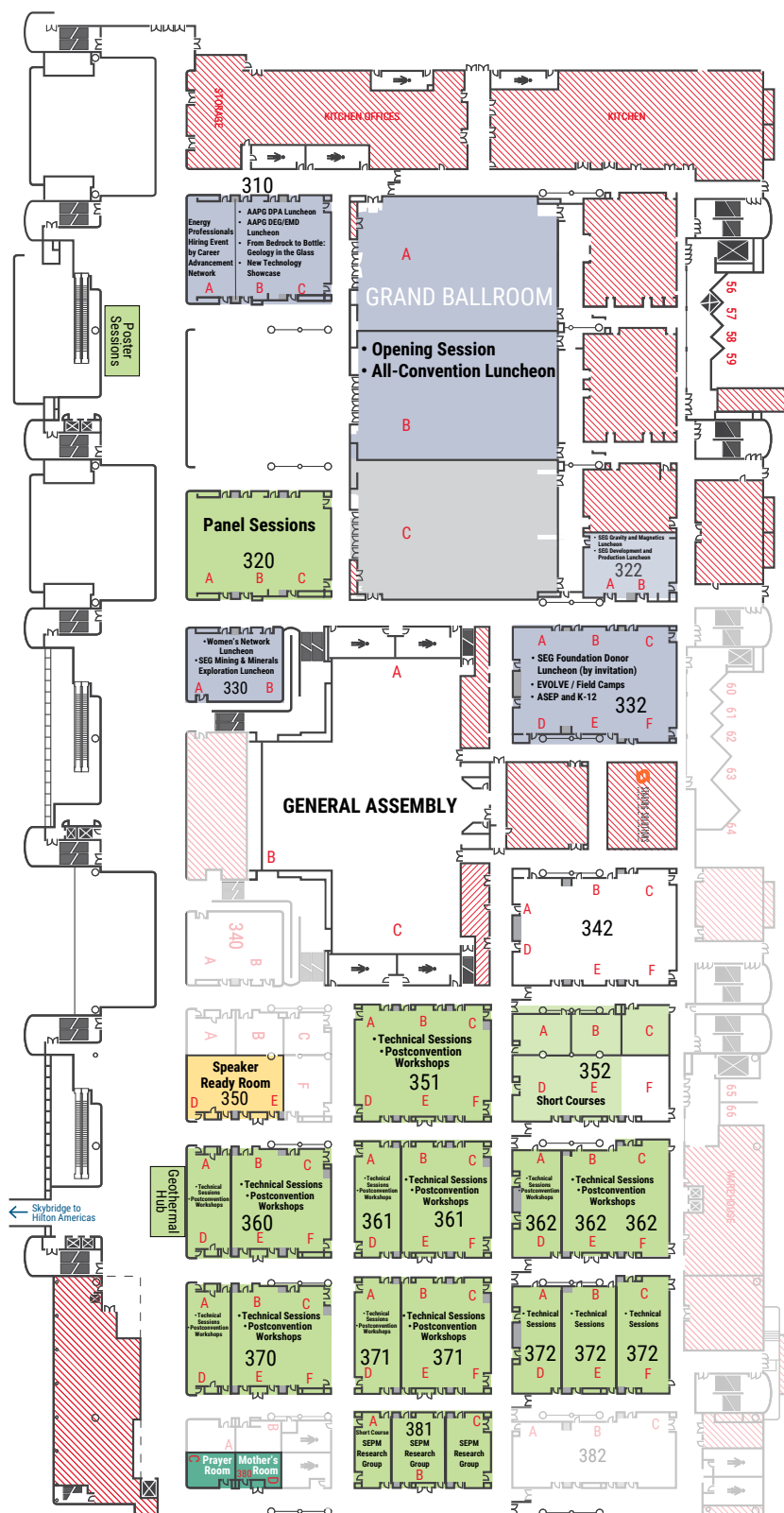
**Paper Title:** Assessing Geothermal Gradient and Hot Sedimentary Aquifer (HSA) Potential for Geo-Exchange in Western Colorado, Piceance Basin  
**Byline:** Michael Longworth, Javier Tellez and, Steve Cumella (Colorado Mesa University)  
**Speaker:** Michael Longworth

### Best Student Poster

**Paper Title:** Monitoring CO<sub>2</sub> leakage safety in saline aquifer using time-lapse seismic imaging  
**Byline:** Yanjiao Dong, Yi Shen and Qiang Mao (China University of Petroleum (East China))  
**Speaker:** Yanjiao Dong



# Technical Program Floor Map



## Key to Theme Areas

- AAS: .....Anisotropy, AVO, and Seismic Inversion
- ACQ: .....Acquisition
- AFR: .....Africa
- AP: .....Asia Pacific
- BH: .....Borehole
- CAEV.....Carbonates and Evaporites
- DAS.....Distributed Acoustic Sensing
- DMLA....Digitalization, Machine Learning/Artificial Intelligence, and Analytics
- EEM .....Europe and Eastern Mediterranean
- EM.....Electromagnetics
- FWI.....Full-Waveform Inversion
- GEFE.....Geoscience Education and Field Experience
- GM.....Gravity and Magnetics
- INT .....Geologic and Geophysical Interpretation
- IPS .....Induced and Passive Seismic
- LAC.....Latin America and the Caribbean
- LCS.....Low Carbon Solutions
- MECA....Middle East and Central Asia
- MME.....Mining and Mineral Exploration
- NS .....Near Surface
- NSF.....New Subsurface Frontiers Geological Hydrogen and Geothermal
- PS.....Petroleum Systems
- RCM .....Reservoir Characterization and Modeling
- RP.....Rock Physics
- RUBD ....Risk, Uncertainty, and Business Decisions
- SG .....Structure and Geomechanics
- SILIC .....Siliciclastic
- SMT .....Seismic Modeling and Theory
- SP.....Seismic Processing
- SS.....Special Sessions
- STUD....Student Research (AAPG, SEG, and SEPM)
- SUS.....Sustainability Energy Development and Environmental Geoscience
- TI.....Technology Innovation
- TL.....Time Lapse
- USC .....United States and Canada

# Technical Program Grid: Oral Sessions

| Room | Tuesday, 18 August                                                                                           |                                                                                                              |                                                                                                                                     |                                                                                           | Wednesday,                                                                                           |                                                                           |
|------|--------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|
|      | 8:00 a.m.–9:40 a.m.                                                                                          | 10:20 a.m.–12:00 p.m.                                                                                        | 1:20 p.m.–3:00 p.m.                                                                                                                 | 3:40 p.m.–5:20 p.m.                                                                       | 8:00 a.m.–9:40 a.m.                                                                                  | 10:20 a.m.–12:00 p.m.                                                     |
| 351A | SS 1: Recent Advances and the Road Ahead: The Energy Evolution in Action: Geoscientists Driving Innovation 1 | SS 4: Recent Advances and the Road Ahead: The Energy Evolution in Action: Geoscientists Driving Innovation 2 | SS 6: Recent Advances and the Road Ahead: Global Search for High Impact Frontier Plays: Basins, Technologies, and Pathways to Value | SS 9: Building the Exploration Company of the Future                                      | FWI 7: Case Studies from Gulf of America 1                                                           | FWI 8: Case Studies from Gulf of America 2                                |
| 360A | BH 1: Machine Learning and Digital Applications                                                              | AFR 1: Unlocking Reservoir and Traps in Underexplored and Matured Regions                                    | SILIC 1: Advances in Onshore and Nearshore Depositional Systems Analysis and Reservoir Evaluation                                   | SS 10: New Instrumentation: In Honor of José (Pepo) Arce                                  | SS 13: Geologic Hydrogen Exploration and Production 1                                                | SS 18: Geologic Hydrogen Exploration and Production 2                     |
| 360B | FWI 1: Novel Approaches and Workflows                                                                        | FWI 3: Cycle Skipping and Novel Misfit Functions                                                             | FWI 5: Theory and Methods                                                                                                           | FWI 6: Time Lapse                                                                         | SS 14: Near Surface Geophysics and the Human-Impacted Environment 1                                  | SS 19: Near Surface Geophysics and the Human-Impacted Environment 2       |
| 361A | AP 1: Integrated Reservoir and Petroleum System Case Studies from Asia Pacific                               | MME 1: Mineral Prospectivity Mapping and Data Processing                                                     | LAC 2: Campos and Santos Basins                                                                                                     | EEM 1: Imaging and Characterizing Complex Reservoirs                                      | LAC 3: Venezuela, and Trinidad and Tobago                                                            | LAC 4: South Atlantic and Conjugate Margin                                |
| 361B | LAC 1: Guyana and Suriname                                                                                   | AAS 1: Frequency Dependent Seismic Analysis                                                                  | NS 1: Advances in Near Surface Seismic                                                                                              | SS 11: Optical Fiber: The value of Optical Measurement: Lessons Learned and Way Forward   | SS 15: Agentic Artificial Intelligence for Geoscience: Principles and Case Studies                   | SMT 1: Numerical Methods, Wave Propagation and Wave Phenomena 1           |
| 362A | INT 1: Foundation Models                                                                                     | DMLA 2: Artificial Intelligence-Driven Probabilistic Modeling of Subsurface Systems                          | INT 2: Facies Interpretation Machine Learning                                                                                       | INT 3: Reservoir Characterization and Modeling                                            | DMLA 6: Seismic Processing 1                                                                         | DMLA 8: Seismic Processing 2                                              |
| 362B | SP 1: Complex-Structure Imaging Case Studies                                                                 | SP 2: Internal Multiples, Deconvolution and Post-Imaging Multiple Attenuation                                | SP 3: Deblending and Simultaneous-Source Separation                                                                                 | SP 4: Multiple Attenuation, Deconvolution and Wavefield Separation                        | SP 5: Emerging Technologies: Quality Control and Distributed Acoustic Sensing                        | SP 6: Interpolation, Reconstruction and 4D Regularization                 |
| 370A | SS 2: Geoscientists without Borders: Seismic Safety and Coastal Stewardship                                  | SS 5: Geoscientists without Borders: Water Security                                                          | SS 7: Resource Quantification and Assurance 1                                                                                       | SS 12: Resource Quantification and Assurance 2                                            | SS 16: History of Petroleum Geosciences 1                                                            | SS 20: History of Petroleum Geosciences 2                                 |
| 370B | FWI 2: Case Studies from the Middle East and Africa                                                          | FWI 4: Case Studies from South America and the Caribbean                                                     | AAS 2: Stochastic/ Bayesian Inversion                                                                                               | AAS 3: Elastic Properties                                                                 | TL 1: Full-Waveform Inversion                                                                        | TL 2: Acquisition, Processing and Analysis                                |
| 371A | SS 3: Exploration, Mineral Science and Mining of the Moon, Mars, and Asteroids                               | USC 1: Workflows                                                                                             | USC 2: Gulf Coast Unconventional Plays and Applied Workflows                                                                        | USC 3: Gulf Coast Reservoir Characterization and Stratigraphic Frameworks                 | RCM 2: Geological Framework and Modeling                                                             | LCS 1: Storage Characterization 1                                         |
| 371B | RCM 1: Unconventional Reservoirs                                                                             | ACQ 1: Marine Technology                                                                                     | ACQ 2: Offshore Acquisition and Monitoring                                                                                          | ACQ 3: Compressive Sensing and Sampling                                                   | ACQ 4: Survey Design and Modeling                                                                    | ACQ 5: Land Hardware Technology                                           |
| 372A | DMLA 1: Velocity Model Building                                                                              | DMLA 3: Foundation Models for Interpretation                                                                 | DMLA 4: Deep Priors for Full-Waveform Inversion                                                                                     | DMLA 5: Wavefield Simulation                                                              | DMLA 7: Advanced Artificial Intelligence Workflows for Seismic Interpretation and Subsurface Imaging | DMLA 9: Machine Learning from Reservoir Properties to Portfolio Decisions |
| 372B | CAEV 1: Deepwater Carbonates                                                                                 | GM 1: Interpretation Examples and Case Studies                                                               | SS 8: Challenges and Solutions: The Current State of Geoscience Education, Industry Needs and Society Impacts                       | GEFE 1: Geoscience Education Across the 20th and 21st centuries: A View from the Trenches | INT 4: Stratigraphy                                                                                  | CAEV 2: Advances in Characterizing Carbonates                             |
| 372C | PS 1: Petroleum Systems of the Americas                                                                      | PS 2: Fluids                                                                                                 | SG 1: Faults, Fractures, and Fluids                                                                                                 | PS 3: Maturity and its Consequences                                                       | SS 17: Novel Passive Seismic Case Studies                                                            | SG 2: Structural Styles: Lithosphere to Thin Section                      |

## Color Key:

Integrated

Geophysics

Geology

Regions

Special Sessions

## 19 August

## Thursday, 20 August

| 1:20 p.m.–3:00 p.m.                                                                            | 3:40 p.m.–5:20 p.m.                                                 | 8:00 a.m.–9:40 a.m.                                                                              | 10:20 a.m.–12:00 p.m.                                                                             | 1:20 p.m.–3:00 p.m.                                               | 3:10 p.m.–4:50 p.m.                                                                                     |
|------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| SS 21: Discovery Thinking: Analogs of Perseverance 1                                           | SS 24: Discovery Thinking: Analogs of Perseverance 2                | FWI 11: Case Studies from Europe and Asia                                                        | FWI 12: Elastic and Reservoir                                                                     | FWI 13: Elastic Inversion Methods                                 | FWI 14: Deep Learning                                                                                   |
| SS 22: Advances in Next-Gen Geothermal: Geologic Insights from Active Projects                 | SS 25: Geothermal Resource Exploration and Characterization         | SS 26: SEPM Research Symposium: Critical Minerals and Geothermal Energy in Sedimentary Systems 1 | SS 28 : SEPM Research Symposium: Critical Minerals and Geothermal Energy in Sedimentary Systems 2 | SS 29: Critical Minerals Economy: Strategy, and Finance           |                                                                                                         |
| FWI 9: Imaging and Amplitude Versus Angle                                                      | FWI 10: Land                                                        | DAS 1: 3D Vertical Seismic Profiling Case Studies                                                | DAS 2: Surface and Multicomponent                                                                 | DAS 3: Microseismic and Machine Learning                          | DAS 4: Fracture Characterization                                                                        |
| LAC 5: Unlocking Opportunities in Latin America                                                | MME 2: Modeling and Data Processing                                 | AFR 2: Benefits of Integrating Relevant Data and it's Impact in Frontier Exploration             | IPS 2: Hydraulically-Induced Fracture Network Monitoring                                          | LAC 7: Mexico                                                     | RP 3: Integrated Applications                                                                           |
| SMT 2: Imaging, Inversion, and Interpretation                                                  | AP 2: Tectonostratigraphy and Hydrocarbon Systems in Complex Basins | NS 2: Electrical and Electromagnetic Methods                                                     | LAC 6: Brazil Equatorial Margin                                                                   | SS 30: Best of EAGE 2026                                          |                                                                                                         |
| IPS 1: Induced Seismicity and Monitoring                                                       | SMT 3: Numerical Methods, Wave Propagation and Wave Phenomena 2     | DMLA 12: Agentic Artificial Intelligence and Foundation Models                                   | RP 1: Fundamentals and New Insights                                                               | RP 2: Lab Experiments                                             | IPS 3: Induced Seismicity and Geothermal                                                                |
| SP 7: Tomography and Full-Waveform Inversion                                                   | SP 8: Least-Squares Imaging and Kirchhoff                           | SP 9: Emerging Technologies: Generative Artificial Intelligence and Learning Workflows           | SP 10: Bandwidth Enhancement, including Q Compensation                                            | SP 11: Artificial Intelligence Denoising and Signal Enhancement   | SP 12: Near Surface, Statics and Shallow-Hazard Processing                                              |
| SS 23: Advancing Near-Surface Imaging and Characterization through New Hardware and Algorithms | BH 2: Advances in Subsurface Interpretation                         | SS 27: Best of SEG Honorary Lecturer's                                                           | INT 6: Structural Interpretation                                                                  | RUBD 1: Exploration Risk and Decision Frameworks                  | RUBD 2: Integrated Decisions in Field Development                                                       |
| TL 3: Modeling, Inversion and Case Studies                                                     | EM 1: New Advancements in Electromagnetic Applications              | MECA 1: Seismic Insights Across Regional Basins                                                  | NS 3: Machine Learning and Artificial Intelligence Applications                                   | NSF 2: Geothermal                                                 | NSF 3: Geothermal and Lithium                                                                           |
| LCS 2: Storage Characterization 2                                                              | LCS 3: Storage Characterization and Modeling                        | USC 4: United States Gulf Deepwater                                                              | USC 5: Permian and Unconventionals                                                                | LCS 4: Advances in Monitoring Technology                          | LCS 5: Storage Case Studies                                                                             |
| ACQ 6: Land Seismic Challenges                                                                 | AAS 4: Multicomponent Seismic                                       | AAS 5: Anisotropy                                                                                | AAS 6: Post Stack Seismic Techniques                                                              | AAS 7: Fracture Characterization                                  | AAS 8: Amplitude Versus Offset Inversion                                                                |
| DMLA 10: Machine Learning for Structural Geology and Borehole Imaging Analysis                 | DMLA 11: Machine Learning-Driven Seismic Inversion                  | DMLA 13: Seismic Interpretation 1                                                                | DMLA 14: Seismic Interpretation 2                                                                 | DMLA 15: Novel Concepts for Seismic Interpretation                | DMLA 16: Next-Generation Artificial Intelligence Workflows for Well Logs and Reservoir Characterization |
| GEFE 2: Creating Digital Outcrop Models for Industry and Beyond                                | GEFE 3: Virtual Geology Field Trips and Training                    | INT 5: Interpretation Methods                                                                    | INT 7: Integrated Workflows                                                                       | INT 8: Petroleum Systems                                          | RCM 4: Seismic Inversion and Reservoir Prediction                                                       |
| SG 3: Rock Mechanics and Deformation                                                           | RCM 3: Dynamic Reservoir Characterization                           | SILIC 2: Integrated Perspectives on Deepwater Stratigraphy and Channelized Systems               | NSF 1: Geological Hydrogen                                                                        | SS 31: Exploration Hot Spots: Technical and Commercial Challenges |                                                                                                         |



# Technical Program Grid: Poster Sessions

For poster presentation station assignments, please refer to the detailed poster pages (88–109) or the mobile app.

| EXHIBIT HALL | LOCATION | Tuesday, 18 August                                                   |                                                                                                          |                                                          | Wednesday,                                                                         |  |
|--------------|----------|----------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|----------------------------------------------------------|------------------------------------------------------------------------------------|--|
|              |          | 10:20 a.m.–12:00 p.m.                                                | 1:20 p.m.–3:00 p.m.                                                                                      | 3:40 p.m.–5:20 p.m.                                      | 10:20 a.m.–12:00 p.m.                                                              |  |
|              | 1        | DMLA P3: Seismic Processing 1                                        | DMLA P4: Advanced Artificial Intelligence for Reservoir Connectivity, Forecasting, and Field Development | DMLA P5: Seismic Interpretation 1                        | DMLA P6: Seismic Inversion with Machine Learning                                   |  |
|              | 2        | SG P1: Faults, Fractures and Fluids                                  | STUD P1: Field Applications                                                                              | LAC P1: Campos and Santos Basins                         | DMLA P7: Artificial Intelligence-Driven Lithology and Geochemical Characterization |  |
|              | 3        | IPS P1: Ambient Field Methods                                        | GM P2: Inversion and Data Processing                                                                     | SMT P2: Modeling and Migration                           | FWI P1: Deep Learning                                                              |  |
|              | 4        | IPS P2: Induced Seismicity and Monitoring                            | STUD P2: Seismic Migration                                                                               | SUS P1: Advances in Sustainable Geo-energy Development 1 | FWI P2: Diffusion Models                                                           |  |
|              | 5        | NS P1: Urban, Geotechnical, and Archaeological Applications          | STUD P3: Deep Learning                                                                                   | STUD P4: Depositional Systems and Reservoirs             | FWI P3: Imaging and Workflow Design                                                |  |
|              | 6        | SMT P1: Modeling in Anisotropic Media                                | TL P1: Synthetic and Case Studies                                                                        | SUS P2: Advances in Sustainable Geo-energy Development 2 | FWI P4: Neural Inversion Frameworks                                                |  |
|              | 7        | SP P1: Resolution Enhancement, Diffractions and Adaptive Subtraction | TL P2: Theory, Uncertainty, and Machine Learning                                                         | STUD P5: Climate, Environment, and Community             | NS P2: Inversion of Near Surface Data                                              |  |

| 3 <sup>rd</sup> LEVEL | LOCATION | Tuesday, 18 August                                                    |                                                                           |                                                            |                                                         | Wednesday,                                                     |                                                                                 |
|-----------------------|----------|-----------------------------------------------------------------------|---------------------------------------------------------------------------|------------------------------------------------------------|---------------------------------------------------------|----------------------------------------------------------------|---------------------------------------------------------------------------------|
|                       |          | 8:00 a.m.–9:40 a.m.                                                   | 10:20 a.m.–12:00 p.m.                                                     | 1:20 p.m.–3:00 p.m.                                        | 3:40 p.m.–5:20 p.m.                                     | 8:00 a.m.–9:40 a.m.                                            | 10:20 a.m.–12:00 p.m.                                                           |
|                       | 1        | DMLA P1: Full-Waveform Inversion                                      | GEFE P1: Creating Hands-On Educational Experiences for Future Generations | PS P1: Geochemical Techniques                              | SP P2: Deghosting and Bandwidth Control                 | CAEV P1: Carbonates by the Numbers                             | SILIC P1: Siliciclastic Characterization: Applications from Field-Based Studies |
|                       | 2        | DMLA P2: Rock Physics and Reservoir Characterization                  | INT P1: Inversion                                                         | PS P2: Production, Geochemical Techniques and Case History | SP P3: Denoising and Noise Suppression Methods          | SG P2: Structural Styles: Lithosphere to Thin Section          | INT P4: Fault Detection Methods                                                 |
|                       | 3        | GM P1: Interpretation                                                 | INT P2: Seismic Facies Classification                                     | TI P1: Field Applications and Monitoring                   | SP P4: Interpolation, Reconstruction and Regularization | AP P1: Carbonate Reservoirs and Petroleum System Risk Analysis | RCM P4: Carbonates Reservoir Characterization                                   |
|                       | 4        | AFR P1: Insights Exploring Petroleum Systems in Underexplored Regions | INT P3: Sedimentology and Geomorphology                                   | TI P2: Computational Methods in Geoscience                 | DAS P2: Reservoir Monitoring                            | DAS P3: Near Surface                                           | DAS P4: Modeling and Acquisition                                                |
|                       | 5        | USC P1: Unconventional Plays and Applied Workflows                    | RCM P1: Depositional Architecture, Geobodies, and Facies Modeling         | DAS P1: Machine Learning and Processing                    | SP P5: Velocity Model Building and Tomographic Updates  | IPS P3: Induced and Passive Monitoring                         | AAS P2: Frequency Dependent Seismic Analysis                                    |
|                       | 6        | USC P2: Canada and The Rockies                                        | RCM P2: Artificial Intelligence, Machine Learning and Seismic Analytics   | EM P1: Machine Learning Methods and Reservoir Surveillance | SP P6: Reverse Time Migration and Imaging Applications  | LCS P1: Storage Characterization 1                             | AAS P3: Case Study                                                              |
|                       | 7        | AAS P1: Anisotropy                                                    | RCM P3: Integrated Reservoir Studies                                      | EM P2: Electromagnetic New Technologies and Case Studies   |                                                         | LCS P2: Storage Characterization 2                             | AAS P4: Machine Learning and More                                               |

| 19 August                                                                         |                                                                       | Thursday, 20 August                         |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------|---------------------------------------------|
| 1:20 p.m.–3:00 p.m.                                                               | 3:40 p.m.–5:20 p.m.                                                   | 10:20 a.m.–12:00 p.m.                       |
| DMLA P8: Seismic Processing 2                                                     | DMLA P9: Novel Concepts for Seismic Interpretation                    | NS P4: Seismic Applications                 |
| RP P1: New Developments                                                           | DMLA P10: Seismic Interpretation 2                                    | NS P5: Hydrogeophysics                      |
| RP P2: Measurement and Modeling                                                   | NSF P1: Geological Hydrogen                                           | FWI P7: Land                                |
| RP P3: Applications                                                               | NSF P2: Geothermal                                                    | FWI P8: Elastic and Imaging                 |
| SP P7: Emerging Technologies: Signal Enhancement, Wavefield Separation, and S-DAS | FWI P6: Distributed Acoustic Sensing and Near Surface                 | FWI P9: Multiparameter and Extended Physics |
| SP P8: Near Surface Processing                                                    | SP P9: Signal Processing, Quality Control and Field Workflows         | FWI P10: Marine Case Studies                |
| FWI P5: Objective Functions and Regularization                                    | SP P10: Multiple Attenuation, Consistency and Operational Corrections |                                             |

| 19 August                                        |                                               | Thursday, 20 August                                                                   |                                                                                         |
|--------------------------------------------------|-----------------------------------------------|---------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1:20 p.m.–3:00 p.m.                              | 3:40 p.m.–5:20 p.m.                           | 8:00 a.m.–9:40 a.m.                                                                   | 10:20 a.m.–12:00 p.m.                                                                   |
| MME P1: Advance Modeling for Mineral Exploration | LAC P2: Latin America Offshore                | TL P3: Novel Time Lapse and Carbon Capture, Utilization, and Storage                  | SMT P3: Modeling and Imaging in Viscous Media                                           |
| INT P5: Fractures and Reservoir Geology          | LAC P3: Mexico, Venezuela, and Andean         | LCS P3: Carbon Capture and Storage                                                    | SMT P4: Frequency Domain Modeling and Other Methods                                     |
| INT P6: Geohazards and Energy Transition         | ACQ P1: Marine and Ocean Bottom Nodes         | LCS P4: Advances in Monitoring Technology                                             | MECA P1: Seismic Insights Across Regional Basins                                        |
| INT P7: Interpretation Machine Learning          | ACQ P2: Land Seismic Methods                  | BH P1: Imaging and Petrophysical Interpretation                                       | LCS P5: Storage Modeling Studies                                                        |
| INT P8: Emerging Methods                         | ACQ P3: Acquisition Modeling and Optimization | AAS P5: Amplitude Versus Offset                                                       | DMLA P12: Agentic Artificial Intelligence and Foundation Models                         |
| STUD P6: New Methods, and New Insights           | ACQ P4: Land Hardware                         | DMLA P11: Digital Fieldwork and Artificial Intelligence-Enabled Rock Characterization | DMLA P13: Advanced Artificial Intelligence Methods for Digital Rock Physics and Imaging |
| NS P3: Innovations in Near Surface Imaging       | ACQ P5: Case Study                            |                                                                                       |                                                                                         |



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## Tuesday, 18 August

### AP 1 Integrated Reservoir and Petroleum System Case Studies from Asia Pacific

Session Chairs: Vicki Amir and Gregory Blache-Fraser

Location: 361A

- 8:00 AM.....**Understanding Depositional Systems and Optimal Reservoir Facies by Integrating Chemostratigraphy, Palynology, Borehole Image Logs, Core in a Complex Terrestrial Syn-rift Basin: A Case Study from the Cuu Long Basin, Vietnam** | A. Mattson<sup>1\*</sup>, G. Blache-Fraser<sup>1</sup>, S. Stanbrook<sup>1</sup>, L. Dinh<sup>1</sup>, N. Bruder<sup>1</sup>, A. Neal<sup>2</sup>, M. Bertouche<sup>2</sup>, A. James<sup>2</sup>, B. Kostic<sup>2</sup>, R. Smith<sup>2</sup>, R. Morley<sup>4</sup>, H. Morley<sup>4</sup>, D. Riley<sup>3</sup>, T. Pearce<sup>3</sup>, A. Nguyen<sup>1</sup>, M. Franzel<sup>3</sup> (1. Murphy Oil Corporation; 2. Badley Ashton; 3. Chemostrat Ltd; 4. Palynova)
- 8:25 AM.....**The Hai Su Vang Discovery, Eocene/Oligocene E-Sequence (Tra Cu Formation), Cuu Long Basin, Vietnam: Integrating Exploration Reservoir Characterization for Development Planning** | S. Stanbrook<sup>1\*</sup>, G. Blache-Fraser<sup>1</sup>, A. Mattson<sup>1</sup>, N. Bruder<sup>1</sup>, B. LeCompte<sup>1</sup>, L. Dinh<sup>1</sup>, A. James<sup>2</sup>, A. Neal<sup>2</sup>, M. Bertouche<sup>2</sup>, B. Kostic<sup>2</sup>, R. Smith<sup>2</sup>, T. Wigan<sup>2</sup>, N. Foote<sup>2</sup>, R. Morley<sup>3</sup>, H. Morley<sup>3</sup>, D. Riley<sup>4</sup>, T. Pearce<sup>4</sup> (1. Murphy Oil; 2. Badley Ashton; 3. Palynova Ltd; 4. Chemostrat Ltd)
- 8:50 AM.....**New Insights on the Petroleum Potential Offshore West Sarawak, Malaysia** | H. Jalil<sup>2\*</sup>, E. A. Marfisi<sup>1</sup>, M. Hamzah<sup>2</sup>, P. Mokhtar<sup>2</sup>, S. Soed<sup>2</sup> (1. BeicipFranlab; 2. PETRONAS)
- 9:15 AM.....**70% oil recovery is possible – lessons learned from the Gippsland Basin** | B. Bender<sup>2\*</sup>, S. Anderson<sup>1</sup> (1. Esso Australia; 2. Woodside Energy)

### BH 1 Machine Learning and Digital Applications

Session Chairs: Vanessa Simoes and Chicheng Xu

Location: 360A

- 8:00 AM.....**Lightweight Hierarchical Transformer-CNN for Lithology and Fluid Classification Based on Well-logging Data** | S. Gao<sup>\*</sup> (China University of Petroleum)
- 8:25 AM.....**Transfer learning-based workflow to perform elastic property prediction in the Powder River Basin** | V. Simoes<sup>\*</sup>, P. Irgens, B. Hoffman (SLB)
- 8:50 AM.....**Assessment of directional textural heterogeneity via integration of 3D CT-scan images and acoustic image logs** | P. Sahu<sup>\*</sup>, Z. Heidari (UT Austin)
- 9:15 AM.....**Intelligent lithology prediction using multi-channel 2D CNN-LSTM with Gramian angular field transformation** | Y. liu<sup>\*</sup> (China University of Petroleum (East China))

### CAEV 1 Deepwater Carbonates

Session Chairs: Scott Lepley and Ali Stagner

Location: 372B

- 8:00 AM.....**Producing from an atypical pre-salt reservoir facies: deposition, diagenesis and petrophysical aspects of high permeable gravitational deposits of Bacalhau field, Santos Basin, Brazil** | L. C. Brelaz<sup>\*</sup>, L. H. Drehmer, K. V. Juk, B. Ninci (Equinor)

- 8:25 AM.....**Solid Bitumen in the Aptian Pre-Salt Reservoirs of the Búzios Field (Santos Basin, Brazil): Geological Controls and Production Implications** | B. M. Lima<sup>\*</sup>, J. C. Guerrero, V. P. Dutra, T. Caribe de Oliveira, V. Mund da Rocha e Silva (Petrobras)
- 8:50 AM.....**Over or under? The sediment budget of Great Bahama Bank** | C. Lopez-Gamundi<sup>1\*</sup>, B. Barnes<sup>2</sup>, C. Betzler<sup>3</sup>, P. M. Harris<sup>4</sup>, A. Oehlert<sup>4</sup>, G. Eberli<sup>4</sup>, S. J. Purkis<sup>4</sup> (1. University of South Carolina; 2. University of South Florida; 3. University of Hamburg; 4. University of Miami)
- 9:15 AM.....**Aptian- Albian Carbonate Reservoir Potential in the Guiana Basin, Suriname: Insights from Thin-section Petrography and Seismic Facies Integration** | A. Lieveld<sup>2</sup>, B. Vincent<sup>1</sup>, M. Kisoensingh<sup>2\*</sup>, G. A. Hirschfeld<sup>2</sup>, N. M. Sardjoe<sup>2</sup> (1. Cambridge Carbonates; 2. Staatsolie Maatschappij Suriname N.V.)

### DMLA 1 Velocity Model Building

Session Chairs: Rongrong Lu and Alejandro Valenciano

Location: 372A

- 8:00 AM.....**Scaling Deep Learning for Full Waveform Inversion: Bridging the Synthetic-to-Real Gap with Large Models** | Y. Lin<sup>1\*</sup>, D. Borisov<sup>2</sup>, P. Jin<sup>1</sup>, Y. Feng<sup>1</sup>, R. Miller<sup>2</sup> (1. University of North Carolina at Chapel Hill; 2. Kansas Geological Survey)
- 8:25 AM.....**Diffusion-Based Structurally Constrained Velocity Model Building: Application to the Viking Graben Dataset** | F. Brandolin<sup>\*</sup>, T. Alkhalifah (King Abdullah University of Science and Technology (KAUST))
- 8:50 AM.....**Agentic self-supervised FWI for near-surface velocity model building using local and global optimizers** | D. Colombo<sup>1</sup>, R. Feng<sup>2</sup>, E. Turkoglu<sup>1\*</sup>, E. Sandoval Curiel<sup>3</sup> (1. Saudi Aramco; 2. Aramco Asia; 3. Aramco)
- 9:15 AM.....**Self-attention summary networks for subsurface velocity-model building from common-image gathers** | S. Zeng<sup>\*</sup>, Y. Zeng, A. Gahlot, Z. Deng, F. J. Herrmann (Georgia Institute of Technology)

### FWI 1 Novel Approaches and Workflows

Session Chairs: Ahmed Ahmed and Faqi Liu

Location: 360B

- 8:00 AM.....**Full waveform inversion for three parameters using wavefield separation** | T. Nemeth<sup>1\*</sup>, K. Bube<sup>2</sup>, J. Washbourne<sup>1</sup>, M. Bader<sup>1</sup>, K. Nihei<sup>1</sup>, A. Sekar<sup>1</sup> (1. Chevron; 2. University of Washington)
- 8:25 AM.....**Beyond velocity FWI: joint velocity and impedance inversion for high-resolution model building and seismic imaging** | Y. Zhang<sup>\*</sup>, Y. Huang, F. Chen, J. Wu, H. Hao (BGP)
- 8:50 AM.....**Gauss-Newton vector-reflectivity inversion in acoustic and elastic media** | W. Zhang<sup>\*</sup>, Á. S. Soares, M. D. Sacchi (University of Alberta)
- 9:15 AM.....**Latent Optimization of Diffusion Models for Enhanced Full Waveform Inversion** | O. Saad<sup>\*</sup>, H. Zhang, T. Alkhalifah (King Abdullah University of Science and Technology, Thuwal, Kingdom of Saudi Arabia (KAUST))



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## Tuesday, 18 August

### FWI 2 Case Studies from the Middle East and Africa

Session Chairs: Min Wang and Zedong Wu

Location: 370B

- 8:00 AM.....**Complex near surface characterization by elastic land full waveform inversion in the south of the Sultanate of Oman** | Y. Guo\*, M. S. Farooqui, A. Sedova, D. Donno, J. Cao, G. Lambare (Viridien)
- 8:25 AM.....**From elastic FWI to probabilistic seismic inversion for reservoir characterization: integrated workflow at the Agogo OBN subsalt field (block 15/06, offshore Angola)** | F. Lo Duca<sup>1</sup>\*, J. Panizzardi<sup>1</sup>, E. Paparozzi<sup>1</sup>, A. Ravasio<sup>1</sup>, N. Bienati<sup>1</sup>, P. Paramo<sup>2</sup>, P. Lanzarone<sup>2</sup> (1. Eni; 2. Azule Energy)
- 8:50 AM.....**High Fidelity Multiparameter FWI Reflectivity Imaging for Cap Rock Integrity Assessment in Flat Geology: An Onshore Case Study** | A. H. Mohamed\* (SLB)
- 9:15 AM.....**Improving pre-Messinian subsalt imaging using Extended FWI: Herodotus Basin, offshore Egypt** | L. Zhuo\*, S. Ghose, J. Gillespie, B. Church, J. Chen, G. Shan (Chevron USA)

### INT 1 Foundation Models

Session Chairs: Altay Sansal and Xuqing Wu

Location: 362A

- 8:00 AM.....**Adapting General Representations of Pretrained Vision Foundation Models to Seismic Interpretation via Geologically Informed Prompting and Lightweight Tuning** | N. Nakata<sup>1</sup>\*, Z. Bi<sup>1</sup>, X. Wu<sup>2</sup>, N. Chen<sup>2</sup> (1. Lawrence Berkeley National Laboratory; 2. University of Science and Technology of China)
- 8:25 AM.....**Advancing direct hydrocarbon interpretation with seismic foundation models: A new 3D AVO interpretation paradigm** | N. Shumaker\* (SLB)
- 8:50 AM.....**AI-Assisted Global Seismic Interpretation for Robust RGT Estimation Across Major Discontinuities** | N. Daynac, J. Razza, L. Tortarolo, Q. Corlay, L. Souche\* (Eliis)
- 9:15 AM.....**SALTSAM3: Language-Guided Salt Dome Segmentation on Seismic Images Using Segment Anything Model 3** | G. Oke\*, A. Raef, M. O. Falowo (Kansas State University)

### LAC 1 Guyana and Suriname

Session Chairs: Andrei Belopolsky and Laszlo Benkovic

Location: 361B

- 8:00 AM.....**KEYNOTE: Unlocking New Exploration Opportunities - Suriname Open-Door Offering** | S. Kisoensingh\*, M. Kisoensingh, D. Biharie (Staatsolie Maatschappij Suriname)
- 8:25 AM.....**How ocean bottom node seismic delivers value for field development: A case study from Suriname-Guyana basin** | J. Brunelliere, M. Lombardi, S. Whitehead, A. Riou, T. Tyagi\* (TotalEnergies)
- 8:50 AM.....**Characterization, modeling & upscaling of sub-seismic scale heterogeneities in a Guyana deepwater channelized reservoir** | M. Schneider\*, P. Singh, J. Foudy, R. J. Wenger, O. Ijase, D. McGee (ExxonMobil)
- 9:15 AM.....**The Guyana-Suriname super basin- clues for finding the next one?** | W. Mynatt\*, B. Fryklund, G. Gaitan, M. Turner (S&P Global CERA)

### PS 1 Petroleum Systems of the Americas

Session Chairs: Ben Kirkland and Colby Knight

Location: 372C

- 8:00 AM.....**Origin of oil and thermogenic gas in the Pacific Northwest: Implications for terrane movement (Part 1)** | L. B. Magoon\* (University of Oregon)
- 8:25 AM.....**A tectonic model tests a hypothesis for occurrence of mid-Cretaceous petroleum source rock beneath the Cenozoic Olympic Peninsula accretionary prism that 'charged' Cascadia's Columbia embayment petroleum system, with implications for the Katella oil, Gulf of Alaska, U.S.A. (Part 2)** | J. M. Armentrout<sup>1</sup>\*, L. B. Magoon<sup>2</sup>, G. Sharp<sup>2</sup>, H. Meyer<sup>2</sup> (1. University of Oregon; 2. Independent Consultant)
- 8:50 AM.....**Apitan Petroleum System Offshore Suriname, Guiana Basin** | D. Biharie\* (Staatsolie)
- 9:15 AM.....**Hydrothermal cooling and heat flux anomalies near the Demerara Plateau: insights from ridge scale modeling** | G. A. Hirschfeld\*, M. Sabiran, S. Wood (Staatsolie Maatschappij Suriname N.V.)

### RCM 1 Unconventional Reservoirs

Session Chairs: Taskin Akpulat and Ethan Perry

Location: 371B

- 8:00 AM.....**Paradigm Shift in Shale Reservoir Characterization: Microfractures as Primary Storage—From Nanoporous to Microfracture-Dominated Systems Based on Systematic Core Analysis** | S. Peng\*, P. Periwal (University of Texas at Austin)
- 8:25 AM.....**A New Coupled Numerical Model for Hydraulic Fracturing and Energy Enhancement in Shale Oil Reservoirs** | J. Cai\*, T. Zhou, Z. Huang, F. Li (Sinopec Petroleum Exploration and Production Research Institution)
- 8:50 AM.....**The evaluation of horizontal well fracturing effect and integrated interpretation based on 3D seismic and microseismic data** | K. Xu\*, Y. Chen, J. Tang, L. Su, W. Xie, X. ZHENG, Y. Wu, Q. Yang (Sinopec Geophysical Research Institute)
- 9:15 AM.....**Regional Petrophysical Geomodel of the Permian Basin** | R. Dommissie<sup>1</sup>\*, C. Kerans<sup>2</sup>, X. Janson<sup>1</sup>, C. Zahm<sup>1</sup>, B. Price<sup>3</sup>, F. Male<sup>4</sup>, i. dommissie<sup>5</sup> (1. University of Texas at Austin; 2. UT Austin-BEG; 3. Devon; 4. Penn State University; 5. Texas Tech University)

### SP 1 Complex-Structure Imaging Case Studies

Session Chairs: Monica Hartmann and Guangchi Xing

Location: 362B

- 8:00 AM.....**Pre-salt Imaging the Outer Nile Region in the East Mediterranean** | M. Bousfield<sup>1</sup>\*, G. Pacheco<sup>1</sup>, I. Albuquerque<sup>1</sup>, V. Schuback<sup>1</sup>, G. Azevedo<sup>1</sup>, D. Silva de Albuquerque<sup>1</sup>, C. Vidor<sup>1</sup>, L. Oliveira<sup>1</sup>, A. Paim<sup>1</sup>, E. Teodoro<sup>1</sup>, A. Khalil<sup>1</sup>, M. Aharchaou<sup>2</sup>, M. Guillois<sup>2</sup> (1. Viridien; 2. ExxonMobil)
- 8:25 AM.....**Acquiring and processing multiple 2D seismic lines in 3D** | J. Jiao<sup>1</sup>\*, S. Konings<sup>2</sup>, S. Saavedra<sup>2</sup>, W. Wang<sup>3</sup>, S. Syme<sup>1</sup> (1. GeoTomo; 2. Lapis Carbon Solutions; 3. GeoTomo)



Tuesday, 18 August

8:50 AM.....**Rapid, high-resolution imaging via real-time processing-driven acquisition: Onshore Northern Caspian: Gran Field** | G. Barnes<sup>1\*</sup>, A. Ourabah<sup>1</sup>, Z. Katrenov<sup>2</sup>, Y. Samenov<sup>2</sup> (1. Stryde; 2. Samga Petroleum)

9:15 AM.....**Holistic strategy to image complex subsurface steep structures: A case study** | J. Jiao<sup>1\*</sup>, T. S. Garnica<sup>2</sup>, L. G. Figuera<sup>2</sup>, W. Wang<sup>1</sup>, S. Syme<sup>1</sup>, H. Lotfipour<sup>1</sup>, M. Delic<sup>1</sup> (1. GeoTomo LLC; 2. Ecopetrol)

## SS 1 Recent Advances and the Road Ahead: The Energy Evolution in Action: Geoscientists Driving Innovation 1

*Session Chairs: Susan Nash and Caroline Wachtman*

**Location: 351A**

8:00 AM.....**Basaltic CO2 Storage: Lessons and Challenges from the Deccan Traps, India for a pilot project** | N. Vedanti<sup>1\*</sup>, D. Das<sup>1</sup>, J. Mallik<sup>2</sup> (1. CSIR-National Geophysical Research Institute; 2. IISER)

8:15 AM.....**Regional Natural Hydrogen Source Mapping and Quantification: A Geophysical Workflow Demonstrated Through the Tamarack Case Study for Manufactured Subsurface Hydrogen (MSSH™)** | M. Brouwers\*, D. Tierney, S. Cheyney, B. Heins (Getech)

8:30 AM.....**Overview of Helium Industry** | S. Tedesco\* (Running Foxes Energy)

8:45 AM.....**Recent progress in active seismic imaging with fiber optic DAS for carbon storage, geothermal, reservoir monitoring, and other applications** | M. Kent (Viridien)

9:00 AM.....**Panel Discussion**

## SS 2 Geoscientists without Borders: Seismic Safety and Coastal Stewardship

*Session Chairs: Robert Merrill and Adil Mukhitov*

**Location: 370A**

8:00 AM.....**Low-cost seismic monitoring with a hybrid raspberry-shake/broadband array around Santa Ana Volcano, El Salvador** | C. Martinez-Coto<sup>1\*</sup>, T. Goebel<sup>1</sup>, S. Rinty<sup>1</sup>, N. Thapa<sup>1</sup>, S. Delgado<sup>1</sup>, B. Henriquez<sup>2</sup>, J. Rivera<sup>3</sup>, W. Mejia<sup>4</sup> (1. University of Memphis; 2. University of El Salvador; 3. Ministry of Environment El Salvador; 4. Ministry of Education El Salvador)

8:15 AM.....**Characterizing seismicity in Guatemala** | S. L. Roche<sup>1\*</sup>, D. Castro<sup>2</sup> (1. Consultant; 2. INSIVUMEH)

8:30 AM.....**The effect of human-engineered waterways on estuarine sediment dynamics: a Texas case study for Matagorda Bay and the Gulf Intracoastal Waterway** | C. Raymond\*, B. Carlson, C. Tinonoo, S. D. Khan, O. Karaca (University of Houston)

8:45 AM.....**Rooted in Place: Community-Based Conservation in the Matagorda Bay System** | A. Dibbern\* (Matagorda Bay Foundation)

9:00 AM.....**Panel Discussion**

## SS 3 Exploration, Mineral Science and Mining of the Moon, Mars, and Asteroids

*Session Chairs: Rasoul Sorkhabi and Douglas Wyatt*

**Location: 371A**

8:00 AM.....**Hazards for Exploration and Human Habitation in the Solar System** | W. A. Ambrose\* (Bureau of Economic Geology)

8:25 AM.....**Lunar South Pole Resource Potential, an AI approach to resource probability within a conceptual geologic framework looking ahead to VIPER confirmation** | D. E. Wyatt\* (retired)

8:50 AM.....**Lunar Volcanogenic Terranes and Mineral Resources** | W. A. Ambrose\* (Bureau of Economic Geology)

9:15 AM.....**The role of astrogeology in the popularization of science** | R. Sorkhabi<sup>1\*</sup>, D. Peters<sup>3</sup>, D. E. Wyatt<sup>2</sup> (1. University of Utah; 2. Consultant; 3. Peters Geosciences)

## AAS 1 Frequency Dependent Seismic Analysis

*Session Chairs: Chen Liang and Daniel Locci-Lopez*

**Location: 361B**

10:20 AM...**Rock-physics-driven FAVO inversion for deep fracture-cavity carbonate reservoirs** | S. Wu\*, H. Lv, L. Yang (Sinopec Geophysical Research Institute Co., Ltd)

10:45 AM...**Frequency-dependent AVO (FAVO) technique and its application in hydrocarbon detection** | C. Sheng\*, C. Wei, D. Shuai, X. Zhang, X. Wang, X. Li, J. Sui, G. Xu, C. Dai (Research Institute of Petroleum Exploration & Development, PetroChina Company Limited)

11:10 AM...**Multispectral joint reflectivity inversion with phase constraint: A case study in the Daqing field, China** | C. Liang<sup>1\*</sup>, O. Portniaguine<sup>1</sup>, J. Castagna<sup>2</sup>, R. Jiang<sup>3</sup> (1. Lumina Geophysical; 2. University of Houston; 3. Carrie Energy Group)

11:35 AM...**WITHDRAWN: High-resolution seismic processing via sparse inversion constrained by learned reflection-position probabilities** | Y. Xu\*, Y. Zong, S. Yuan, H. Li, S. Wang (China University of Petroleum)

## ACQ 1 Marine Technology

*Session Chairs: Shangli Ou and Carsten Udengaard*

**Location: 371B**

10:20 AM...**Active Force Feedback Moving Coil Geophone Technology and its Application in Ocean Bottom Node** | F. Ruan<sup>1\*</sup>, B. Zhou<sup>2</sup>, C. Chen<sup>1</sup>, Y. Zhang<sup>1</sup>, C. He<sup>3</sup> (1. China Oilfield Services Limited; 2. CNOOC Limited Tianjin Branch; 3. Suzhou Geophysical Deep Sensing Technology Co. Ltd)

10:45 AM...**Extended-Frequency Source Case Studies – Exploration and Beyond** | M. Cvetkovic\*, S. Baldock, M. Widmaier, M. Rocke, G. Nash, K. Reuber (TGS)

11:10 AM...**A Comparison of Signal-to-Noise for Three Different Seismic Sources in the Deep-Water GOA** | Z. Li\*, J. A. Dellinger, J. Naranjo, Q. Li (BP)

11:35 AM...**AI-integrated autonomous robotic systems for advanced seismic acquisition** | N. Alsaad\*, E. Alfataierge, A. Alshuhail (Saudi Aramco)



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## Tuesday, 18 August

### AFR 1 Unlocking Reservoir and Traps in Underexplored and Matured Regions

Session Chairs: Nick Kaprowski and Dave Pivnik

Location: 360A

- 10:20 AM...**Challenges in AVO compliance and calibration in West Africa: Geology versus Imaging** | F. Winter<sup>1</sup>, R. Ruiz<sup>1</sup>, T. Hansen<sup>1</sup>, J. Rogers<sup>1</sup>, H. Houllévigue<sup>2\*</sup> (1. TGS; 2. TGS (Non-Author))
- 10:45 AM...**Elastic FWI on one-sided WAZ with enhanced frequency sources offshore Angola** | E. Frugier<sup>\*</sup>, H. Xing, G. Yu, J. Tilton, T. Buckley, M. Pila, T. Tang, M. Plummer, D. Armentrout, K. Abdelaziz, A. Castellan (TGS)
- 11:10 AM...**Angola's New Gas Consortium; how broadband reprocessing of 30-year-old legacy 3D seismic datasets has supported the country's first non-associated gas development** | M. Tyrrell<sup>\*</sup> (GeoPartners Ltd)
- 11:35 AM...**High impact exploration in Africa since 2020** | J. Collard<sup>\*</sup>, B. Gill (Westwood Global Energy)

### DMLA 2 Artificial Intelligence-Driven Probabilistic Modeling of Subsurface Systems

Session Chairs: Eduardo Maldonado Cruz and Yushi Zhao

Location: 362A

- 10:20 AM...**3D latent Mean Flows priors for Bayesian inference of subsurface geology at large scale** | K. Wang<sup>\*</sup>, K. Daly, B. Wheelock (ExxonMobil)
- 10:45 AM...**SAGE: Subsurface AI-driven Geostatistical Extraction with proxy posterior** | H. Erdinc<sup>1\*</sup>, I. Bhar<sup>1</sup>, T. Souza<sup>2</sup>, R. Orozco<sup>3</sup>, F. J. Herrmann<sup>1</sup> (1. Georgia Institute of Technology; 2. Huber Engineered Materials; 3. Oxy)
- 11:10 AM...**Physics-informed latent autoregressive video diffusion models for fluid flow simulations** | V. De Pellegrini<sup>\*</sup>, T. Alkhalifah (KAUST)
- 11:35 AM...**Uncertainty Quantification in Electromagnetic Resistivity Inversion Using a Hybrid Conditional VAE with Adaptive Model Fusion** | T. Yan<sup>\*</sup> (Halliburton)

### DMLA 3 Foundation Models for Interpretation

Session Chairs: Pandu Devarakota and Tao Zhao

Location: 372A

- 10:20 AM...**SeisFM-FaciesNet: Adapting 2D and 3D seismic foundation models for facies segmentation** | V. Ly<sup>\*</sup>, A. Sansal, B. G. Lasscock, A. Valenciano (TGS)
- 10:45 AM...**Leveraging seismic foundation models for direct hydrocarbon identification: a workflow for enhanced accuracy and generalization** | N. P. Pham<sup>\*</sup>, R. Chhibber, N. Shumaker, H. Di, A. Sharma (SLB)
- 11:10 AM...**Towards a cross-modal masked autoencoder for subsurface data** | B. G. Lasscock<sup>\*</sup>, M. Gajula, K. Gonzalez, A. Valenciano, B. Michell (TGS)
- 11:35 AM...**Toward multimodal seismic intelligence: a language-grounded synthetic seismic data framework for vision-language foundation models** | P. Srivastava<sup>\*</sup>, R. Deshmukh, M. Xu, A. Aseev, N. Gupta (SLB)

### FWI 3 Cycle Skipping and Novel Misfit Functions

Session Chairs: Adriano Gomes Dos Santos and Jian Mao

Location: 360B

- 10:20 AM...**Robust imaging using Graph-Space Optimal Transport FWI and structure preserving regularization: a case study from offshore North-West Australia** | S. Sambolian<sup>2\*</sup>, R. Brossier<sup>1</sup>, L. Métivier<sup>3</sup> (1. Univ. Grenoble Alpes; 2. Université de Strasbourg; 3. CNRS)
- 10:45 AM...**Hybrid Sobolev Misfit for Multi-Parameter Full Waveform Inversion** | Y. Shen<sup>\*</sup>, B. Engquist (University of Texas at Austin)
- 11:10 AM...**Multi-component time-frequency polarization-based full waveform inversion: application on the 3D SEG/EAGE Overthrust model** | V. Cassayre<sup>1\*</sup>, R. Brossier<sup>1</sup>, L. Métivier<sup>2</sup>, S. Sambolian<sup>3</sup> (1. Université Grenoble Alpes; 2. CNRS; 3. Université de Strasbourg)
- 11:35 AM...**Full waveform inversion using a Euclidean misfit function and shot patching** | X. Mu<sup>\*</sup>, O. Saad, S. Wang, T. Alkhalifah (King Abdullah University of Science and Technology)

### FWI 4 Case Studies from South America and the Caribbean

Session Chairs: Lorenzo Casasanta and Xiaolei Song

Location: 370B

- 10:20 AM...**Visco-Elastic Multiparameter FWI in Media with Strong Attenuation** | Y. Yang<sup>1\*</sup>, S. Jin<sup>1</sup>, A. Ramroosingh<sup>2</sup>, T. Fox<sup>1</sup>, A. Gomes Dos Santos<sup>1</sup>, R. Plessix<sup>3</sup>, V. Goh<sup>1</sup> (1. Shell International Exploration and Production Inc.; 2. Shell Trinidad and Tobago Limited; 3. Shell Global Solutions International)
- 10:45 AM...**Resolving high-resolution thin-bed reservoirs in deepwater Suriname using multiparameter elastic full-waveform inversion** | M. Matta<sup>1\*</sup>, A. Verba<sup>1</sup>, Z. Lee<sup>1</sup>, N. Do<sup>1</sup>, P. Sittipan<sup>1</sup>, X. Cheng<sup>1</sup>, A. Ghazali<sup>2</sup>, R. Alai<sup>2</sup>, P. G. Hong<sup>2</sup>, M. Sarif<sup>2</sup>, N. Norkaman<sup>2</sup> (1. SLB; 2. PETRONAS)
- 11:10 AM...**Improving detection of gas-bearing sands with viscoelastic MP-FWI** | M. F. Hartmann<sup>\*</sup>, C. Marin, E. Codes Ruiz (DUG Technology)
- 11:35 AM...**Imaging Innovations with FWI in the Columbus Basin, Offshore Trinidad** | X. Song<sup>\*</sup>, D. Baptiste, Q. Li, S. Luo, K. Benjamin, R. Ali, H. Liu, D. Wang, G. Xia, s. cardinez (bp)

### GM 1 Interpretation Examples and Case Studies

Session Chairs: Antony Price and Alan Reid

Location: 372B

- 10:20 AM...**Magnetic Surveys for Legacy Well Detection: Insights from Gulf Coast Locations** | N. Bundalo<sup>\*</sup>, A. M. Contreras, W. T. Spodee (Occidental)
- 10:45 AM...**Co-optimization of Carbon Storage and Enhanced Oil Recovery under Market Uncertainty via Deep Reinforcement Learning** | E. Fosu-Duah<sup>1\*</sup>, L. Zerpa<sup>2</sup>, K. Noh<sup>1</sup>, A. Swidinsky<sup>1</sup> (1. University of Toronto; 2. Colorado School of Mines)
- 11:10 AM...**Building a 3D velocity model for multiple-2D seismic surveys using 3D full tensor gradiometry** | J. Jiao<sup>1\*</sup>, T. S. Garnica<sup>2</sup>, L. G. Lozada<sup>2</sup>, W. Wang<sup>1</sup>, S. Syme<sup>1</sup>, H. Lotfipour<sup>1</sup>, M. Delic<sup>1</sup> (1. GeoTomo; 2. Ecopetrol)

## Tuesday, 18 August

11:35 AM... **Reservoir monitoring for hydrocarbon production and carbon storage using seafloor deformation and time-lapse gravity acquired by uncrewed vessels** | H. Ruiz<sup>1</sup>, F. Halpaap<sup>1</sup>, S. Groot<sup>1</sup>, S. Sulheim<sup>2\*</sup> (1. Reach Subsea; 2. Reach Subsea AS (Non-Author))

### MME 1 Mineral Prospectivity Mapping and Data Processing

*Session Chairs: Daniel Hollis and Marco Nieto*

**Location: 361A**

10:20 AM... **Expanding Seismic Insights for Mineral Exploration Through Data Augmentation** | H. Alasmri<sup>1\*</sup>, J. Felemban<sup>1</sup>, A. Alali<sup>1</sup>, Y. Ma<sup>2</sup> (1. Saudi Aramco; 2. Aramco Beijing Research Center)

10:45 AM... **Hydrothermal Alteration Zonation and Structural Controls in Porphyry Mineral Systems: Multiphysics Characterization** | T. Y. Alyousuf<sup>\*</sup> (Saudi Aramco)

11:10 AM... **Integrating Geochemistry and Induced Polarization/Seismic imaging to delineate a Dispersed-U Roll-Front in Shirley Basin, Wyoming** | B. J. Carr<sup>\*</sup> (University of Wyoming)

11:35 AM... **XENAI MineWatch: Geospatial data, AI, and visualization for environmental and geotechnical monitoring in mining operations** | J. M. Sánchez<sup>\*</sup> (Xcalibur Smart Mapping)

### PS 2 Fluids

*Session Chairs: Jagos Radovic and Poorna Srinivasan*

**Location: 372C**

10:20 AM... **Interplay between reservoir charge and fluid geodynamics in tar mat formation** | T. Sabry-Mohamed<sup>\*</sup> (SLB)

10:45 AM... **Rock-Eval analysis oil in rocks: Back to physics** | N. Bouton<sup>\*</sup> (Vinci Technologies)

11:10 AM... **Cautions in interpreting fluid inclusion data obtained from deep-ultradeep carbonate reservoirs** | P. Yang, K. Liu<sup>\*</sup> (China University of Petroleum)

11:35 AM... **Basin scale thermal and fluid flow diagenetic history of Barra Velha Formation, Santos Basin: Evidence from the new thermochronometer Delta47/U-Pb, Sr isotopes and fluid inclusions** | F. A. Farias<sup>1\*</sup>, A. Rumbelsperger<sup>2</sup>, L. Santos<sup>3</sup>, L. Cury<sup>2</sup>, G. d. Gonçalves<sup>4</sup>, R. Santos<sup>4</sup>, M. Schirneck<sup>1</sup>, F. Nepomuceno<sup>5</sup>, M. F. Caldas<sup>1</sup> (1. Petrobras; 2. Federal University of Paraná; 3. São Paulo University; 4. Brasilia University; 5. Federal University of Rio de Janeiro)

### SP 2 Internal Multiples, Deconvolution and Post-Imaging Multiple Attenuation

*Session Chairs: Ting Gong and Mingqiu Luo*

**Location: 362B**

10:20 AM... **Learning-Assisted Blind Seismic Deconvolution Under Non-Gaussian Noise via Fractional Lp-Norm Optimization** | T. Câmara<sup>1</sup>, K. Nose-Filho<sup>2</sup>, P. Oliveira dos Santos<sup>1\*</sup>, A. Takahata<sup>2</sup>, S. da Silva<sup>1</sup>, T. Barros<sup>1</sup>, L. Silveira<sup>1</sup> (1. Universidade Federal do Rio Grande do Norte; 2. Universidade Federal do ABC)

10:45 AM... **Attenuation of internal multiples in shallow waters: A case study from offshore Mexico** | L. M. Palavicini Gurria<sup>1\*</sup>, A. Abouelela<sup>1</sup>, F. Valencia Flores<sup>1</sup>, F. Perez Ortega<sup>1</sup>, G. Hernandez Mayes<sup>1</sup>, I. Cedillo Abreu<sup>1</sup>, M. I. Leon Silva<sup>1</sup>, J. Jurado Ramirez<sup>1</sup>, A. Cabrales<sup>2</sup>, M. Dodanim<sup>2</sup> (1. SLB; 2. Pemex)

11:10 AM... **A refined approach to multiple attenuation in ultra-shallow water for OBS in the South China Sea** | J. Wang<sup>1\*</sup>, X. Gao<sup>1</sup>, H. Shi<sup>2</sup>, C. Deng<sup>1</sup>, S. Chen<sup>2</sup>, R. Li<sup>2</sup>, S. Sonika<sup>2</sup> (1. CNOOC Ltd; 2. SLB)

11:35 AM... **Model-based post-migration enhancement of subsalt images in the northern Gulf of America** | H. Li<sup>\*</sup>, J. Mao (SLB)

### SS 4 Recent Advances and the Road Ahead: The Energy Evolution in Action: Geoscientists Driving Innovation 2

*Session Chairs: Kurt Strack and Nimisha Vedanti*

**Location: 351A**

10:20 AM... **Fluid imaging as a key enabler for CCUS, EOR, geothermal, and lithium brine exploration in the energy transition** | C. Barajas-Olalde<sup>1\*</sup>, A. Y. Paembonan<sup>2</sup>, M. Silva<sup>1</sup>, K. Strack<sup>3</sup> (1. Energy Transition International, Inc; 2. Sumatera Institute of Technology; 3. KMS Technologies)

10:35 AM... **Geophysical response in Lithium-brines monitoring: Change of concept models and new frontiers** | A. Curcio<sup>\*</sup> (PROINGEO SA)

10:50 AM... **Pressure geothermal developments: advances and opportunities** | M. Eros<sup>\*</sup> (Sage Geosystems)

11:05 AM... **Beyond Baseload Aspirations: The Case for Geothermal Energy Storage as a Backup Power for Grid Stability Improvement in Texas** | S. Bhattacharya<sup>\*</sup>, S. Liu, P. Cho, E. Kutanoglu (The University of Texas at Austin)

11:20 AM... **Panel Discussion**

### SS 5 Geoscientists *without* Borders: Water Security

*Session Chairs: Robert Merrill and Adil Mukhitov*

**Location: 370A**

10:20 AM... **Assessing groundwater availability at parts of the northern Western Desert of Egypt using 1D and 2D electrical resistivity measurements** | A. Ismail<sup>1\*</sup>, A. Diab<sup>2</sup>, T. Abdel-Fatah<sup>2</sup>, H. El-Sayed<sup>4</sup>, D. Ehab<sup>3</sup>, A. Elgendy<sup>4</sup>, H. Khalil<sup>2</sup> (1. Maxima Geophysics; 2. Alexandria University; 3. City of Scientific Research and Technology Applications, SRTA-City; 4. National Institute of Oceanography and Fisheries (NIOF))

10:35 AM... **Comparing AHP and CAT-XGB Ensemble Intelligence for Precision Groundwater Potential Zone Mapping in Northwestern Nigeria** | J. O. Osumaje, W. Li, S. S. Utekar<sup>\*</sup>, D. Jones (University of Michigan)

10:50 AM... **Geophysical Hypotheses of Borehole Drilling Sites** | A. Yussif<sup>\*</sup> (Pumping is Life)

11:05 AM... **Panel Discussion**





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## Tuesday, 18 August

### USC 1 Workflows

*Session Chairs: Julie Bloxson and Laura Ortiz-Sanguino*

**Location: 371A**

- 10:20 AM....**Workflow of free and adsorbed gas estimate at reservoir conditions based on high-pressure CH<sub>4</sub> adsorption on Haynesville and Bossier** | T. Zhang<sup>2\*</sup>, L. Ko<sup>2</sup>, P. Periwal<sup>1</sup> (1. The University of Texas at Austin; 2. Bureau of Economic Geology)
- 10:45 AM....**Enhancing exploration decision-making on Alaska's North Slope: machine learning-assisted reconstruction of 3D seismic volumes from 2D Data** | F. Xavier De Melo\*, R. Hearn, S. Riseman, Q. Song, L. Holifield, T. Zhao, C. Li (SLB)
- 11:10 AM....**Reducing geosteering uncertainty in the Teapot Formation through integrated seismic, LWD resistivity, and tracer diagnostics, Converse County, Wyoming, USA** | M. Millard<sup>1\*</sup>, A. Hennes<sup>1</sup>, G. Hill<sup>1</sup>, N. kurczewski<sup>1</sup>, D. Parker<sup>2</sup> (1. Rockies Resources LLC; 2. Parker Geophysical Consulting)
- 11:35 AM....**Field-scale multidisciplinary chronostratigraphic analysis (MCA) applied at a development field in Gulf of America, U.S.A.** | J. Morantes<sup>1\*</sup>, E. Reat Wersan<sup>1</sup>, R. Hackworth<sup>1</sup>, O. Yepes<sup>2</sup>, L. Luckenbach<sup>1</sup>, J. Fontana<sup>1</sup> (1. Chevron, U.S.A. Inc.; 2. Chevron)

### AAS 2 Stochastic/Bayesian Inversion

*Session Chairs: Dale Baptiste and Atish Roy*

**Location: 370B**

- 1:20 PM....**To peel or not to peel: Improving facies separation in joint impedance-facies inversion** | A. Teitel\*, A. J. Mur (Ikon Science)
- 1:45 PM....**WITHDRAWN: Simultaneous prediction of petrophysical and pore structure parameters using a Bayesian seismic rock physics inversion in multiporosity reservoirs** | X. Lian\*, Z. Zong (China University of Petroleum (East China))
- 2:10 PM....**Improved Elastic Property Estimation from Seismic Data Using Bayesian Lithofacies Inversion** | R. Sharma<sup>1</sup>, S. Chopra<sup>1\*</sup>, n. kumar<sup>2</sup>, M. Tobin<sup>3</sup> (1. SamiGeo; 2. Canacol Energy Ltd; 3. CMG)
- 2:35 PM....**Application of prestack geostatistical inversion constrained by paleogeomorphology in thin-bedded sandbody prediction: A case study of tight oil in the 4th member of Quantou formation of Cretaceous Songliao basin** | L. Feng\*, H. Zhao, X. Chen, H. Gu, Y. Bao (Exploration and Development Research Institute of Daqing Oilfield Company Ltd. CNPC)

### ACQ 2 Offshore Acquisition and Monitoring

*Session Chairs: Laura Pointer and Martin Widmaier*

**Location: 371B**

- 1:20 PM....**Making simultaneous source data better than single source data** | R. L. Abma\* (University of Texas at Austin)
- 1:45 PM....**Adaptive zipper optimization for cost-effective complex OBN projects** | Y. Yue\*, Y. Zheng, X. Xin, M. Luo, Z. Xu, F. Zheng, M. Cao, Y. Wang (BGP,CNPC)
- 2:10 PM....**Ten Years of Offshore Seismic Supervision in Brazil: Operational Insights from Vessel Timing** | F. C. Marques\* (Toveri)

- 2:35 PM....**Using seismic sensor responses in complex long-term monitoring** | M. Hons\* (Illiance Solutions)

### DMLA 4 Deep Priors for Full-Waveform Inversion

*Session Chairs: Matteo Ravasi and Madhav Vyas*

**Location: 372A**

- 1:20 PM....**On the role of memorization in learned priors for geophysical inverse problems** | A. Siahkoohi\*, D. Sabeddu (University of Central Florida)
- 1:45 PM....**Model shaping in FWI with denoising diffusion probabilistic modeling: a comparison of strategies** | Y. Sun\*, A. guiton, B. Duquet, M. Dolliazal (TotalEnergies)
- 2:10 PM....**Visualizing diffusion posterior density for seismic inversion** | R. Harikumar<sup>1\*</sup>, S. Minkoff<sup>2</sup> (1. The University of Texas at Dallas; 2. Brookhaven National Laboratory)
- 2:35 PM....**Wavelet whitened patch-based diffusion prior for velocity models** | H. Erdinc<sup>1</sup>, E. Cirakman<sup>2\*</sup>, F. J. Herrmann<sup>1</sup> (1. Georgia Institute of Technology; 2. Istanbul Technical University)

### FWI 5 Theory and Methods

*Session Chairs: James Xu and Shiyong Xu*

**Location: 360B**

- 1:20 PM....**On the use of reciprocity for OBN FWI** | G. Hampson\* (DUG)
- 1:45 PM....**Scalable Uncertainty Quantification in Full-Waveform Inversion: A Comparative Study of HMC, SVGD, and Variational Inference** | I. Deiana\*, H. Alswaidan, H. Li, B. Biondi (Stanford University)
- 2:10 PM....**Bayesian Full-waveform Monitoring of CO<sub>2</sub> Storage with Fluid-flow Priors via Generative Modeling** | H. Li<sup>1\*</sup>, N. Wang<sup>2</sup>, L. J. Durlofsky<sup>1</sup>, B. Biondi<sup>1</sup> (1. Stanford University; 2. Heriot-Watt University)
- 2:35 PM....**Scalable Bayesian full waveform inversion via dual augmented Lagrangian SVGD** | K. Aghazade<sup>2</sup>, A. Siahkoohi\*, A. Gholami<sup>2</sup> (1. Department of Computer Science, University of Central Florida; 2. Institute of Geophysics, Polish Academy of Sciences)

### INT 2 Facies Interpretation Machine Learning

*Session Chairs: Oswaldo Davogustto and Jie Qi*

**Location: 362A**

- 1:20 PM....**The algorithm doesn't know geology - A practitioner's guide for ML-assisted seismic facies interpretation** | A. D. Moreno-Ward\* (University of Oklahoma)
- 1:45 PM....**Seismic facies segmentation of volcanic conduit with synthetic data-trained neural networks** | Y. Wei\*, Q. Wang, Z. Zhu, J. Ding, W. Sun, Y. Ye, J. Wang (CNOOC Research Institute Ltd.)
- 2:10 PM....**Machine learning-based characterization of shale fracability using seismic attributes and microseismic observations** | B. Zhang<sup>1\*</sup>, K. Lin<sup>2</sup> (1. University of Alabama; 2. Chengdu University of Technology)
- 2:35 PM....**Intelligent seismic facies identification method based on improved ConvNeXt V2** | J. Yu<sup>1\*</sup>, X. Liu<sup>1</sup>, X. Zhang<sup>2</sup>, J. Liu<sup>3</sup>, H. Yuan<sup>1</sup> (1. China University of Geosciences Beijing; 2. RIPED, PetroChina; 3. China Oilfield Services Limited)



## Tuesday, 18 August

### LAC 2 Campos and Santos Basins

Session Chairs: Flavio Fernandes and Roman Hotzel

Location: 361A

- 1:20 PM.....**Velocity model-driven uncertainty analysis to support well approval in a challenging pre-salt setting: Marlim Complex, Campos Basin** | N. M. Ribeiro Junior\*, V. D. Novellino, A. Maul, T. Filgueiras, M. Silveira, C. Gomes (Petrobras)
- 1:45 PM.....**Stratigraphic and diagenetic controls on silicification and reservoir quality in pre-salt carbonates, Campos Basin, Brazil** | M. Thompson<sup>1</sup>\*, E. Cavallerano<sup>1</sup>, R. Vines<sup>1</sup>, P. Tavares<sup>2</sup>, A. Barnett<sup>3</sup> (1. Shell International Exploration and Production Inc.; 2. Shell Brasil Petroleo LTDA; 3. Shell Research Limited)
- 2:10 PM.....**Flat spots, big stakes: Testing the seismic DHI hypothesis in SW Santos Sub-Basin with high resolution re-imaging seismic data** | E. Leaubon\*, A. Portella, G. Souza, A. Gordon, M. Gatti, A. Lougon (Viridien)
- 2:35 PM.....**PRISM - Pre-salt Research Infrastructure for Subsurface Modeling** | A. D. Pearson<sup>1</sup>\*, H. Erdinc<sup>2</sup>, S. Zeng<sup>2</sup>, G. Gorman<sup>3</sup>, A. Yaner<sup>1</sup>, F. J. Herrmann<sup>2</sup> (1. ThinkOnward; 2. Georgia Institute of Technology; 3. Devito Codes)

### NS 1 Advances in Near Surface Seismic

Session Chairs: Jinji Li and Linbin Zhang

Location: 361B

- 1:20 PM.....**Enabling near-surface FWI with the MASW method analyzing challenging seismic data collected at a Brownsville, Tx levee site** | J. Ivanov<sup>1</sup>\*, A. Hoch<sup>1</sup>, D. Borisov<sup>1</sup>, R. D. Miller<sup>1</sup>, S. Sloan<sup>2</sup>, S. L. Peterie<sup>1</sup>, Y. Zhang<sup>1</sup>, S. Abbasi<sup>1</sup> (1. Kansas Geological Survey; 2. ERDC)
- 1:45 PM.....**An ultra high-density, high-resolution multi-component seismic reflection program for near-surface characterization of the Upper Mississippian Embayment** | T. Stieglitz<sup>2</sup>\*, D. Laymon<sup>1</sup>, W. Doll<sup>1</sup>, E. Woolery<sup>3</sup>, S. Hampson<sup>3</sup>, K. Woller<sup>3</sup>, A. R. Chatenay<sup>2</sup> (1. Collier Geophysics; 2. Explor; 3. University of Kentucky)
- 2:10 PM.....**Near-Surface Velocity Characterization from Log Scale to 3D Surface-Seismic Scale in the Cenozoic Sedimentary Fill of Eddy County, New Mexico** | S. Klug\*, A. Lewis, T. Mackay, B. Karr (Fairfield Geotechnologies)
- 2:35 PM.....**Wireless nodal seismic for high-resolution subsurface characterization using FWI** | E. Sandoval Curiel, D. Colombo, E. Turkoglu\* (Saudi Aramco)

### SG 1 Faults, Fractures, and Fluids

Session Chairs: Chris Ginn and Alissa Henza

Location: 372C

- 1:20 PM.....**Where does the pressure go? Investigating the role of geological architecture on wastewater injection with geomechanically coupled finite element modeling** | S. Buseti<sup>1</sup>\*, K. Smye<sup>1</sup>, P. H. Hennings<sup>2</sup>, E. A. Horne<sup>2</sup>, K. Smart<sup>3</sup> (1. Bureau of Economic Geology; 2. University of Texas at Austin; 3. Southwest Research Institute)

- 1:45 PM.....**Concept-driven Discrete Fracture Network (DFN) modeling of a clastic naturally fractured reservoir with high water cuts: the NEAG 2 Field, North Western Desert, Egypt** | S. Rivas-Dorado<sup>1</sup>\*, O. Rashad<sup>2</sup>, M. Mohamed<sup>1</sup> (1. Rock Flow Dynamics; 2. Cairo University)
- 2:10 PM.....**Results of the application of AI for fault detection and interpretation, Mexico** | G. Parissi Lara<sup>3</sup>, C. Beristain Suarez<sup>3</sup>, C. Caraveo Miranda<sup>3</sup>, C. Quijada Gil<sup>2</sup>\*, J. Cruz Gutierrez<sup>2</sup>, C. Veltman Zertuche<sup>1</sup> (1. Eliis; 2. Apogee Geomodeling; 3. Pemex)
- 2:35 PM.....**Integrated structural, compartmentalization, and structural diagenesis study for Vito field development, Gulf of Mexico** | A. Ozkan\*, K. Onyeagoro, J. Solum, G. Siavalas, E. Villegas, M. Portela, H. Coumont (Shell Exploration and Production Company)

### SILIC 1 Advances in Onshore and Nearshore Depositional Systems Analysis and Reservoir Evaluation

Session Chairs: Samuel Hudson and Jonathon Sevy

Location: 360A

- 1:20 PM.....**Fluvial Channel Organization in the Castlegate & Ericson Sandstones: Insights from Digital Outcrop Models and Spatial Statistics** | O. Tatum\*, S. M. Hudson, B. Bickmore, E. Evans (Brigham Young University)
- 1:45 PM.....**Fluvio-deltaic source rocks in the Cook Formation, Northern North Sea: An integrated sedimentology and biostratigraphy case study** | A. Folkestad\* (Equinor ASA)
- 2:10 PM.....**Revisiting the Frio depositional system onshore Texas, USA: understanding its depositional facies distribution and rock quality variability for reservoir characterization purposes** | C. A. Uroza\*, W. A. Ambrose, S. Bhattacharya (Bureau of Economic Geology, The University of Texas at Austin)
- 2:35 PM.....**Simplified petrophysical reconnaissance methodology for evaluation of unconventional shales** | D. S. Eyinla\* (SLB)

### SP 3 Deblending and Simultaneous-Source Separation

Session Chairs: Oluwakemi Eleyinafe and Gordon Poole

Location: 362B

- 1:20 PM.....**Deblending results for a hybrid ultralow-frequency source, sparse node survey in the Gulf of America** | M. Salgadoe\*, C. Goran, C. Espinoza (SLB)
- 1:45 PM.....**Deep learning matching for direct off-the-time-grid deblending** | C. Li<sup>1</sup>\*, Y. Chen<sup>2</sup> (1. The University of Texas at Austin; 2. The University of Texas at Austin)
- 2:10 PM.....**Advances in Marine Deblending** | J. Sun\* (TGS)
- 2:35 PM.....**Axis-specific design for seismic deblending: Alignment matters more than operator choice** | R. L. De Araujo<sup>2</sup>, J. A. Acedo<sup>1</sup>\*, R. Pestana<sup>2</sup>, M. D. Sacchi<sup>1</sup> (1. University of Alberta; 2. Federal University of Bahia)



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## Tuesday, 18 August

### SS 6 Recent Advances and the Road Ahead: Global Search for High Impact Frontier Plays: Basins, Technologies, and Pathways to Value

*Session Chairs: Carlos Cabarcas and Sergio Chávez-Pérez*

**Location: 351A**

- 1:20 PM.....**Controls on Atlantic Margin Cretaceous Prospectivity** | J. Vinnels<sup>1</sup>\*, J. Fallon<sup>2</sup> (1. Vinnels Consulting; 2. Estacado Exploration)
- 1:45 PM.....**High Impact-Value in the Miocene Oficina Formation of brownfields on the Greater Oficina Area, Eastern Venezuela Basin** | M. Sanchez\*, J. Arminio (U3 EXPLORE)
- 2:10 PM.....**Integration of Fluid Data Science technology with play analogue concept suggesting the outboard Santos, Foz do Amazonas, Lüderitz, and Pelotas Basins as the next supergiant hydrocarbon frontiers in the South Atlantic Realm** | M. R. Mello<sup>1</sup>\*, C. Beisl<sup>1</sup>, W. Peres<sup>1</sup>, J. M. Moldowan<sup>2</sup>, J. Dahl<sup>2</sup> (1. Brazil Petrostudies; 2. Biomarker Technologies)
- 2:35 PM.....**Panel Discussion**

### SS 7 Resource Quantification and Assurance 1

*Session Chairs: Tiffany Hedayati and Douglas Weaver*

**Location: 370A**

- 1:20 PM.....**The most significant transformation in resource governance in a century: understanding the UNFC–UNRMS frameworks** | M. A. Capello\* (Red Tree Consulting, LLC)
- 1:45 PM.....**Mapping a below tuning reservoir to help with SEC compliant volume definition: The Eurytion Field, offshore Australia** | D. Moy\*, R. Teakle, M. McCrudden, R. Schipper, T. Payenberg, P. Wellington (Chevron)
- 2:10 PM.....**Effects of Distribution Choice on Mean Resource Estimates** | P. D. Carragher\* (Rose & Associates LLP)
- 2:35 PM.....**Improving volumetric parameterization through integrated seismic calibration of structure, reservoir properties, and fluids** | K. Lien\*, N. Benesh (ExxonMobil)

### SS 8 Challenges and Solutions: The Current State of Geoscience Education, Industry Needs and Society Impacts

*Session Chairs: Paul Mann and Dolores van der Kolk*

**Location: 372B**

- 1:20 PM.....**KEYNOTE: Educating the Geoscientists of the Future - Breadth, Depth, and Adaptability** | D. F. Stockli\* (University of Texas at Austin)
- 1:35 PM.....**Roots and Reinvention in a Legacy Energy Geosciences Program** | H. Bedle\*, M. J. Pranter, B. M. Carpenter, S. Dulin (University of Oklahoma)
- 1:50 PM.....**A recruiter's perspective on the changing landscape of graduate geoscience training** | S. Gibbins\*, L. Price (ExxonMobil)
- 2:05 PM.....**The Roles and Health of Geoscience Societies - Student participation** | H. Harper\* (SEPM)
- 2:20 PM.....**Panel Discussion**

### USC 2 Gulf Coast Unconventional Plays and Applied Workflows

*Session Chairs: Daniel Minisini and Fernando Sanchez Ferrer*

**Location: 371A**

- 1:20 PM.....**Haynesville Unlocked: Inputs and Results of a USGS Multiresource Assessment** | R. Gardner, J. A. Flaum\*, J. Birdwell, C. Lohr, J. Counts (U.S. Geological Survey)
- 1:45 PM.....**Western Bossier: The USGS Assessment of a New Ultra-Overpressured Gas Play** | R. Gardner, J. Birdwell\*, J. A. Flaum, J. Counts, C. Lohr (U.S. Geological Survey)
- 2:10 PM.....**Declining Gulf Coast natural gas production: implications for LNG exports and natural gas prices** | W. DeMis\* (Rochelle Court, LLC)
- 2:35 PM.....**Critical Factors in Upper Eagle Ford Exploration** | R. Kommaraju\* (Independent Consultant)

### AAS 3 Elastic Properties

*Session Chairs: Jaewook Lee and Nimisha Vedanti*

**Location: 370B**

- 3:40 PM.....**Elastic wave-equation inversion for thin-reservoir detection and facies discrimination: A gas field case study** | Q. Zhang<sup>1</sup>\*, Y. Zhao<sup>1</sup>, Z. Zuo<sup>2</sup>, F. Ruiz<sup>1</sup> (1. Sinopec Tech Houston; 2. Sinopec Wuxi Research Institute of Petroleum Geology)
- 4:05 PM.....**Image-Based Gradient Regularization for Elastic Full-Waveform Inversion** | A. Kumar\*, I. Tsvankin, J. C. Shragge (Colorado School of Mines)
- 4:30 PM.....**CRP-based slope tomography technique: review and perspectives** | B. C. Nascimento\*, T. A. Coimbra, J. H. Facciopieri (Universidade Estadual de Campinas)
- 4:55 PM.....**Estimation of elastic parameters with guidance-based diffusion model using angle-stack seismic data** | A. Dixit\*, F. Brandolin, T. Alkhalifah (KAUST)

### ACQ 3 Compressive Sensing and Sampling

*Session Chairs: Chengbo Li and Zhehao Li*

**Location: 371B**

- 3:40 PM.....**Reconstruction of Randomly Sampled Data with Anti-aliasing Using Polar Fourier Transform and Its Applications** | J. Xie, J. Zhang, Z. Di, F. He, X. Hao\* (Sinopec)
- 4:05 PM.....**Optimal Seismic Acquisition Sampling Design and Vibroseis Path Planning Optimization based on a Hierarchical DRL-MCTS Framework** | R. Lin\*, Z. Wang, Y. Guo (Harbin Institute of Technology)
- 4:30 PM.....**Generalized ergodic survey design in higher dimensions** | J. Capriotti\*, M. Zhang, Y. Li (Colorado School of Mines)
- 4:55 PM.....**Slope-assisted, joint interpolation of pressure and vertical velocity multi-channel streamer data** | M. Ravasi\*, I. Vasconcelos (Shearwater GeoServices)

Tuesday, 18 August

## DMLA 5 Wavefield Simulation

Session Chairs: Anusha Sekar and Xuqing Wu

Location: 372A

- 3:40 PM.....**Wavefield Simulation Based on Multi-Input Invertible Koopman Neural Operator** | R. Bi<sup>1\*</sup>, P. Yong<sup>2</sup>, J. Huang<sup>1</sup> (1. State Key Laboratory of Deep Oil and Gas, School of Geosciences, China University of Petroleum (East China); 2. State Key Laboratory of Acoustics and Marine Information, Institute of Acoustics, Chinese Academy of Sciences)
- 4:05 PM.....**An integrated approach to forward and inverse modeling for 2-D acoustic full waveform inversion** | N. Gupta\*, A. Aseev, P. Srivastava (SLB)
- 4:30 PM.....**Learning to propagate: Seismic wavefield modeling with diffusion models** | S. Cheng\*, T. Alkhalifah (King Abdullah University of Science and Technology)
- 4:55 PM.....**qFWI: Full Waveform Inversion with Hybrid Quantum Finite Basis Physics-Informed Neural Network** | H. Nguyen\*, A. Tura (Colorado School of Mines)

## EEM 1 Imaging and Characterizing Complex Reservoirs

Session Chairs: Fabien Laugier and Megan Stearman

Location: 361A

- 3:40 PM.....**Geophysical Issues and Challenges in the Sea of Marmara from an E&P Perspective** | Y. Bashir<sup>1</sup>, A. Karaman<sup>1</sup>, Z. Arshad<sup>2\*</sup> (1. Istanbul Technical University, Turkey; 2. University of Houston (Non-Author))
- 4:05 PM.....**Novel wavefield inversion for complex imaging: an example with mud volcanoes** | C. Kumar\*, T. Nazarbayov, V. Orujov, T. Ibrahimzade, R. Johnston, G. Xia (bp)
- 4:30 PM.....**Maximizing the value of narrow-azimuth data for Pre-Messinian imaging with elastic TLFWI at Egypt's Nile Delta Basin** | Y. Liu<sup>2\*</sup>, N. Ladeb<sup>2</sup>, J. Mei<sup>2</sup>, S. Ghose<sup>1</sup>, H. Al-Attar<sup>1</sup>, K. Zhang<sup>1</sup>, S. Baudou<sup>3</sup>, F. Fekkes<sup>4</sup> (1. Chevron; 2. Viridien; 3. IEOC; 4. Eni)
- 4:55 PM.....**Depositional environments and internal architecture of Oligo-Miocene gas reservoirs, Cyprus** | J. J. Gomez\*, E. Meyers, P. Syngaevsky, A. Kahn, R. Hackworth, D. Lewis (Chevron)

## FWI 6 Time Lapse

Session Chairs: Anu Chandran and Gary Hampson

Location: 360B

- 3:40 PM.....**Obtaining reliable 4D signals through 4D elastic FWI Imaging at Thunder Horse field** | C. Chen<sup>1\*</sup>, Y. Tian<sup>1</sup>, S. Strauss<sup>1</sup>, Z. Wei<sup>1</sup>, L. Jiang<sup>2</sup>, B. Elebiju<sup>2</sup> (1. Viridien; 2. bp America Inc.)
- 4:05 PM.....**High resolution 4D Full Waveform Inversion for fluid saturation monitoring using the WILD Acquisition System** | A. Alsaad<sup>1\*</sup>, M. Prasad<sup>1</sup>, J. Behura<sup>2</sup> (1. Colorado School of Mines; 2. Seismic Sciences LLC)
- 4:30 PM.....**Field data testing of trans-dimensional model regularization in Pseudo-3D timelapse FWI** | A. Ziegion\*, J. Li, K. Innanen (CREWES, University of Calgary)
- 4:55 PM.....**Variational Inference for uncertainty quantification of 4DFWI results** | F. Gao<sup>1\*</sup>, Y. Huang<sup>2</sup>, C. Calderon<sup>1</sup>, F. Liu<sup>1</sup> (1. TGS; 2. Brown University)

## GEFE 1 Geoscience Education Across the 20th and 21st centuries: A View from the Trenches

Session Chairs: Paul Mann and Esther Oyedele

Location: 372B

- 3:40 PM.....**The Crucible of the Outcrop: Sustaining the Value of Field Experience in the Modern Geoscience Curriculum** | S. Matson\* (Gemini Oil Co)
- 4:05 PM.....**The Future of Geoscience Education: Challenges and Solutions** | R. Zhang\*, B. Schubert (University of Louisiana at Lafayette)
- 4:30 PM.....**Changes in Undergraduate and Graduate Student Populations and Employment Trends in the Department of Geological Sciences at the University of Alabama** | D. Robinson\*, Y. Zhang, K. D. Genareau (University of Alabama)
- 4:55 PM.....**It Takes a Society – How Professional Societies Can Help To Sustain Geoscience Programs** | J. M. Bloxson\*, W. Brown (Stephen F. Austin State University)

## INT 3 Reservoir Characterization and Modeling

Session Chairs: Victor Garcia and Khaled Dulajian

Location: 362A

- 3:40 PM.....**Integrated multi-scenario UDAR modelling and seismic calibration for horizontal wells in structurally complex reservoirs, Atlantis field case studies** | L. A. Lopez\*, M. Rabinovich, D. Rose, M. Murtuzaliyev, Y. Feng, B. Boyd (BP)
- 4:05 PM.....**Integrated Reservoir Characterization of Sandstone Reservoirs in the Powder River Basin, Complementary Potential for Asset Maximization, Wyoming, USA** | T. L. Inks<sup>1\*</sup>, R. Stout<sup>2</sup>, D. Welker<sup>3</sup>, J. Gallop<sup>5</sup>, M. Kuhn<sup>4</sup>, W. Khan<sup>4</sup>, L. Cordoba<sup>4</sup> (1. IS Interpretation Services LLC; 2. Sage Butte Energy LLC; 3. DWW Petrophysics, LLC; 4. Landmark Halliburton; 5. IKON Science Americas)
- 4:30 PM.....**Identification and Reservoir Prediction of Bauxite Gas Reservoirs: A Case Study of the Ordos Basin** | Y. She\*, F. Li, S. Yu, M. Wu (Exploration and Development Research Institute of Changqing Oilfield Branch Company Ltd.)
- 4:55 PM.....**Integrated Seismic Imaging, Fracture Characterization, and Geomechanical Modelling to Unlock Hydrocarbon Potential of Deep Naturally Fractured Carbonate Reservoirs of the Kohat-Potwar Sub-Basin, Pakistan** | A. Asghar\*, Z. Hussain, A. H. Palekar, S. Iqbal, U. Zaib (Pakistan Petroleum Limited)

## PS 3 Maturity and its Consequences

Session Chairs: Daniella Gutierrez and Fausto Mosca

Location: 372C

- 3:40 PM.....**The Maturity Multiverse: Integrating Rock, Oil, and Gas Maturity Signals to Refine Petroleum System Interpretations** | A. Zumberge\*, J. E. Zumberge (GeoMark Research)
- 4:05 PM.....**Higher Diamondoids by GC-MS/MS: Advancing Source Rock-Oil-Condensate Correlation in Petroleum Systems** | I. Atwah\*, M. AlSaif (Saudi Aramco)



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## Tuesday, 18 August

4:30 PM.....**Evaluating porosity evolution in sulfur-rich unconventional source rocks** | P. Srinivasan<sup>1\*</sup>, E. M. Endara Arguello<sup>1</sup>, S. L. Eichmann<sup>1</sup>, H. R. Karg<sup>2</sup>, A. Azzouni<sup>2</sup> (1. Aramco Americas; 2. Saudi Aramco)

4:55 PM.....**Source rock analysis in Campos and Santos basins – using well data to compare post and pre-salt potential and maturity** | B. Lyra\*, E. Kneller (Viridien)

### SP 4 Multiple Attenuation, Deconvolution and Wavefield Separation

*Session Chairs: Pierre-Olivier Ariston and Milos Cvetkovic*

**Location: 362B**

3:40 PM.....**Is Natural-Image Pre-Training Beneficial for Seismic Multiple Attenuation?** | F. Fuchs<sup>1\*</sup>, M. R. Fernandez<sup>1</sup>, N. Ettrich<sup>1</sup>, J. Keuper<sup>2</sup> (1. Fraunhofer ITWM; 2. Offenburg University IMLA)

4:05 PM.....**Up-down deconvolution of 3D towed streamer data using NFH-derived direct wave model** | R. H. Telling\*, A. Jafargandomi (Shearwater Geoservices)

4:30 PM.....**Down/down deconvolution but de-multiple later** | B. Chowdhury<sup>2</sup>, M. A. Micu<sup>2\*</sup>, G. Hampson<sup>2</sup>, W. Hickey<sup>2</sup>, M. Kobylarski<sup>2</sup>, S. Pou Palomé<sup>1</sup>, J. Muhongo<sup>1</sup>, O. Rahmanov<sup>1</sup> (1. TotalEnergies; 2. DUG London)

4:55 PM.....**Straight to understanding subsurface with Up-Down Deconvolution** | Y. Bekhtin\*, S. Zainaldin, H. Alfaraj, A. Alharbi (Saudi Aramco)

### SS 9 Building the Exploration Company of the Future

*Session Chairs: Bob Fryklund and Adam Goss*

**Location: 351A**

3:40 PM.....**Building the Exploration Company of the Future - Knowing yourself, Ruthless Collaboration, and Leveraging AI** | W. Langin\* (Talos Energy)

3:50 PM.....**Chevron Exploration: Designing the Future, Today** | E. Garinet (Chevron)

4:00 PM.....**Building the Exploration Company of the Future** | G. F. Hebertson\* (Westlawn Americas Offshore)

4:10 PM.....**Murphy Oil Corporation: A Differentiated Exploration Culture Unconstrained by Geography, Driven by Opportunity** | C. Olson (Murphy Oil)

4:20 PM.....**Panel Discussion**

### SS 10 New Instrumentation: In Honor of José (Pepo) Arce

*Session Chairs: Lia Martinez and Marco Nieto*

**Location: 360A**

3:40 PM.....**Innovation and Insight: The Legacy of Pepo and the AG-IPDAS Method** | C. Truffert\* (IRIS Instruments)

3:55 PM.....**High-Quality Magnetometry in High-Mountain Environments** | P. Grijalba\* (Robotic Air Systems)

4:10 PM.....**Integrating direct-sensing in-situ technologies and geophysical imaging for high resolution characterization of complex mine tail and brownfield sites** | K. Doro\* (The University of Toledo)

4:25 PM.....**Challenges faced in new geophysical instrument designs and opportunities in power designs using silicon carbide power semiconductors** | G. Arce\* (UMR SMSU)

4:40 PM.....**Panel Discussion**

### SS 11 Optical Fiber: The value of Optical Measurement: Lessons Learned and Way Forward

*Session Chairs: Joel Le Calvez and Michel Verliac*

**Location: 361B**

3:40 PM.....**Fiber optic measurements for subsurface seismic monitoring: advancements and remaining challenges** | V. Lesnikov\*, A. S. Calvert, E. Rebel, A. Robin (TotalEnergies)

3:55 PM.....**The role of distributed fiber-optic sensing in subsurface measurement, monitoring, & verification** | E. Alfataierge\*, M. Arsalan, A. Shawaf (Saudi Aramco)

4:10 PM.....**The role of lossy compression in passive DAS data analysis** | E. Martin\*, A. S. Issah, G. Brooks (Colorado School of Mines)

4:25 PM.....**Distributed fiber optic sensing (DFOS) for life of field: Are we there yet?** | I. Lim Chen Ning\*, B. Harvey, J. Haataja (Chevron U.S.A. Inc.)

4:40 PM.....**Panel Discussion**

### SS 12 Resource Quantification and Assurance 2

*Session Chairs: Tiffany Hedayati and Douglas Weaver*

**Location: 370A**

3:40 PM.....**Pitfalls, bias, and mitigations in resource assessment** | M. Bond\*, D. Weaver (Rose Subsurface Assessment)

4:05 PM.....**Integrated 4D Seismic and WAG Performance Validation to Support Reserves Booking** | O. Arslan\* (HESS)

4:30 PM.....**Quantitative Resource Characterization for a Non-DHI prospect: A Guyana case study** | C. Pringle\*, A. Palumbo, R. Lippoldt, P. Monigle (ExxonMobil)

4:55 PM.....**Bayesian Calibration of P10/P90 Ranges for Petroleum Exploration** | G. Bagley\* (Westwood)

### USC 3 Gulf Coast Reservoir Characterization and Stratigraphic Frameworks

*Session Chairs: Scott Lepley and Weiguo Li*

**Location: 371A**

3:40 PM.....**Integrating reservoir quality and depositional environment interpretations to delineate assessment unit boundaries in the Upper Jurassic Cotton Valley Formation** | J. A. Flaum\*, J. K. Pitman, S. T. Paxton, S. A. Kinney, R. Gardner (U.S. Geological Survey)

4:05 PM.....**Reassessing the Cretaceous and Jurassic source rocks of the northern Gulf Basin** | R. A. Denne\* (University of Texas)

4:30 PM.....**Broadband ambient seismic noise recorded on a submarine telecom DAS cable along the Texas Gulf Coast: spectral levels and spatial variability** | O. A. Hezam<sup>1</sup>, A. Bakulin<sup>2</sup>, A. Titova<sup>2\*</sup>, S. Fomel<sup>2</sup> (1. Saudi Aramco; 2. University of Texas at Austin)



4:55 PM.....**Big deltas and small submarine fans in the changing world of the Oligocene Frio Group** | M. Sweet\* (Institute for Geophysics, Jackson School of Geosciences, The University of Texas at Austin)

### ACQ 4 Survey Design and Modeling

*Session Chairs: Xiaolei Song and Malcolm White*

**Location: 371B**

8:00 AM.....**Rolling Variable-Density Acquisition: A Targeted Solution to the Near-Offset Noise Cone** | A. Bakulin\* (Independent Researcher)

8:25 AM.....**Pseudo-3D seismic acquisition in a socially sensitive urban area: a successful case history** | G. J. Carstens\* (Independent Consultant)

8:50 AM.....**FWI oriented seismic acquisition azimuth analysis in complex velocity fields** | A. De Souza Junior\*, D. P. Furtado, J. Borba, P. R. Bertussi (Petrobras)

9:15 AM.....**Optimization of the acquisition geometry based on the accurate two-way illumination** | D. Zeng\*, Y. Liu (Tongji University)

### DMLA 6 Seismic Processing 1

*Session Chairs: Anat Canning and Fan Jiang*

**Location: 362A**

8:00 AM.....**A deep learning based workflow for multicomponent seismic data registration** | S. Hoque<sup>1</sup>\*, R. Zhang<sup>1</sup>, M. Rashid<sup>2</sup> (1. University of Louisiana at Lafayette; 2. Islamic University of Technology)

8:25 AM.....**Seismic conditioning with reduced signal leakage** | A. Katole\*, W. Hu, H. Maniar, T. Zhao, A. Abubakar (SLB)

8:50 AM.....**2D Residual WcGAN-GP Framework for 4D Seismic Denoising in Multi-Vintage Scenarios** | J. A. Collazos<sup>1</sup>\*, K. d. Rincon<sup>1</sup>, D. Kiyashchenko<sup>2</sup>, J. M. Araujo<sup>1</sup> (1. UFRN; 2. Shell)

9:15 AM.....**Flow matching diffusion model for low-frequency enhancement with reconstruction-consistent mean teacher approach** | H. Tang\*, C. Hu, X. Cheng (SLB)

### DMLA 7 Advanced Artificial Intelligence Workflows for Seismic Interpretation and Subsurface Imaging

*Session Chairs: Haibin Di and Felipe Medellin*

**Location: 372A**

8:00 AM.....**Multi-county evaluation of automated formation tops interpretation: Multi-metric analysis, PCA evaluation, and cross-validated picking in the Williston Basin** | D. Kreman<sup>2</sup>\*, K. Pelton<sup>2</sup>, A. Lindsey<sup>1</sup> (1. HXMX; 2. Devon)

8:25 AM.....**Seismic waveform-constrained artificial intelligence high-resolution thin reservoir prediction** | Y. Jiang\*, C. Han (College of Geology and Mining Engineering, Xinjiang University, Sinopec Geophysical Research Institute Co., Ltd.)

8:50 AM.....**Borehole and surface seismic data fusion for 3D near-surface velocity modeling using machine learning** | E. Turkoglu\*, D. Colombo, E. Sandoval Curiel (Saudi Aramco)

9:15 AM.....**FWI enhanced workflow with deep learning priors for initial velocity modeling** | W. Luo\* (Zhejiang University)

### FWI 7 Case Studies from Gulf of America 1

*Session Chairs: Mustafa Al-Waily and Yongzhong Wang*

**Location: 351A**

8:00 AM.....**Enhancing Subsalt Resolution with Elastic Multi-Parameter FWI: a Gulf of America case study** | H. Xing\*, F. Liu, G. Huang, R. Huang, Z. Yuan, B. Mekala, A. Castellan, K. Abdelaziz, M. Hegazy (TGS)

8:25 AM.....**Enhancing subsalt reservoir imaging at Katmai field with elastic FWI** | L. Sang<sup>1</sup>\*, C. Yin<sup>1</sup>, B. J. Thibodeaux<sup>1</sup>, B. Cottam<sup>1</sup>, M. R. Etienne<sup>1</sup>, S. Mei<sup>2</sup>, X. Luo<sup>2</sup>, Z. Yang<sup>2</sup>, Z. Wei<sup>2</sup> (1. Talos Energy; 2. Viridien)

8:50 AM.....**Improving Deep Subsalt Imaging with FWI using Wide Azimuth Towed Streamer Data for Paleogene Exploration** | X. Li\*, Y. Wang, T. Yang, L. Henry, A. Paul, J. Clark, E. Ekstrand, G. Xia, F. Billette, A. Afifi (BP)

9:15 AM.....**Gemini-Enabled Sub-Hertz Elastic FWI for Robust Subsalt Velocity Model Building** | H. Xing, R. Huang\*, Z. Yuan, K. Abdelaziz, C. Udengaard, A. Castellan, M. Hegazy (TGS)

### INT 4 Stratigraphy

*Session Chairs: Sharon Cornelius and Kyle Reuber*

**Location: 372B**

8:00 AM.....**Got FrAmPh? (frequency-amplitude-phase): Toward geophysically integrated seismic stratigraphy** | A. S. Madof<sup>1</sup>, C. Holmes<sup>1</sup>\*, I. Bunting<sup>1</sup>, F. Laugier<sup>2</sup> (1. Chevron; 2. ExxonMobil)

8:25 AM.....**Tectonostratigraphic controls on synrift architecture and presalt reservoir facies in the Kwanza Basin, Angola** | A. Sarkar<sup>1</sup>, S. Tewari<sup>1</sup>, M. Uzcatogui-Salazar<sup>1</sup>, D. F. Fernandez<sup>2</sup>\* (1. SLB; 2. SLB (Non-Author))

8:50 AM.....**Angle-Dependent Pseudo-Elastic Parameter Inversion and Its Application in Thin Dolomite Reservoir Prediction** | H. Wang<sup>1</sup>\*, L. Zhou<sup>2</sup>, L. Zhao<sup>1</sup>, A. Xu<sup>1</sup>, J. Gui<sup>3</sup>, Y. Li<sup>1</sup>, Q. Chen<sup>3</sup> (1. RIPED, CNPC; 2. Southwest Petroleum University; 3. Research Institute of Petroleum Exploration & Development-Northwest (NWGI), PetroChina)

9:15 AM.....**Proven Tertiary plays in the Shallow Offshore of Suriname, Guiana Basin** | M. Kisoensingh\*, N. Poeketie, C. de Seil, V. Chedi (Staatsolie Maatschappij Suriname)

### LAC 3 Venezuela, and Trinidad and Tobago

*Session Chairs: Daniel Minisini and Fernando Sanchez Ferrer*

**Location: 361A**

8:00 AM.....**Proposal for a genetic classification of sedimentary basins in North South America and the Southern Caribbean** | J. Arminio\* (U3 Explore)

8:25 AM.....**Resolving complex fault architecture through interpretive seismic reprocessing: An onshore example from Trinidad** | A. Graham<sup>1</sup>, E. P. Gomez<sup>1</sup>\*, X. Moonan<sup>2</sup> (1. Thrust Belt Imaging; 2. Touchstone Exploration)

8:50 AM.....**An explorers "Paria-dise" - how reprocessing of vintage data in the Norte de Paria area of Venezuela is providing insight into regional prospectivity** | M. J. Powney<sup>1</sup>\*, J. Sherriff<sup>2</sup>, S. Doyle<sup>2</sup> (1. Geox MCG; 2. DUG)



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## Wednesday, 19 August

9:15 AM.....**Investigating Upper Slope Sedimentation, Mini-basins and Mobile Shale Control on Potential Plays - Columbus Basin, Trinidad and Tobago** | S. Wharton\* (Subsurface Imaging Co)

### RCM 2 Geological Framework and Modeling

*Session Chairs: Taskin Akpulat and Kean Bliss*

**Location: 371A**

8:00 AM.....**A geology-anchored, two-stage workflow for basin-scale well log normalization using 3D statistical volumes** | P. E. Rodrigues<sup>1\*</sup>, R. J. Michelena<sup>1</sup>, K. Gonzalez<sup>2</sup>, A. Valenciano<sup>2</sup> (1. SeisPetro Geoconsulting; 2. TGS)

8:25 AM.....**From Outcrop to Reservoir 3D modelling: Integrating Outcrop Analogs and Artificial Neural Networks for Lithotype-Based Reservoir Characterization** | A. Palencia\* (HOCOL E&P)

8:50 AM.....**Textural Analysis of FIB-SEM Images of Organic-Rich Shale for Rock Properties Predictions** | A. A. Alabbad<sup>1\*</sup>, J. Dvorkin<sup>2</sup>, L. Louis<sup>3</sup> (1. Saudi Aramco; 2. KFUPM/Retired; 3. Aramco Americas)

9:15 AM.....**Automation in fault network modeling: from seismic interpretation to 3D fault frameworks** | S. Dhumale<sup>1</sup>, T. Laverne<sup>1</sup>, E. Malvesin<sup>1</sup>, A. Levannier<sup>1</sup>, L. Bernal<sup>2\*</sup> (1. SLB; 2. SLB (Non-Author))

### SP 5 Emerging Technologies: Quality Control and Distributed Acoustic Sensing

*Session Chairs: Mike Cogan and Yaxun Tang*

**Location: 362B**

8:00 AM.....**Seismic well ties and seismic inversion as quantitative quality controls for seismic processing: A case study from offshore Mexico** | L. M. Palavicini Gurria<sup>1\*</sup>, A. Abouelela<sup>1</sup>, F. Valencia Flores<sup>1</sup>, F. Perez Ortega<sup>1</sup>, J. Jurado Ramirez<sup>1</sup>, A. Cabrales<sup>2</sup>, M. Dodanim<sup>2</sup> (1. SLB; 2. Pemex)

8:25 AM.....**QI driven processing to enhance the fidelity in a deepwater field** | I. Samanta<sup>1\*</sup>, Y. Cobo<sup>1</sup>, D. Armentrout<sup>1</sup>, R. Hernandez<sup>1</sup>, T. Alcantara<sup>1</sup>, A. Castellan<sup>1</sup>, I. Novianti<sup>1</sup>, K. Abdelaziz<sup>1</sup>, M. Hegazy<sup>1</sup>, Q. Li<sup>2</sup>, C. Williams<sup>2</sup>, D. Kumar<sup>2</sup> (1. TGS; 2. BP)

8:50 AM.....**Analyzing seismic workflows with large language models: a case study on error detection** | S. Martin<sup>2\*</sup>, M. Alwani<sup>2</sup>, Y. Tian<sup>2</sup>, J. Kramer<sup>2</sup>, A. Ramanathan<sup>2</sup>, B. G. Lasscock<sup>1</sup>, A. Valenciano<sup>1</sup> (1. TGS; 2. Amazon Web Services)

9:15 AM.....**Seismic Acquisition and Processing as a Coupled System: A Data-Driven Audit from Prestack Noise to Stack Signal** | A. Bakulin<sup>1\*</sup>, I. Silvestrov<sup>2</sup> (1. University of Texas at Austin; 2. Independent Researcher)

### SS 13 Geologic Hydrogen Exploration and Production 1

*Session Chairs: Yaoguo Li and Mengli Zhang*

**Location: 360A**

8:00 AM.....**New framework of ranking hydrogen generation potential in igneous rocks** | M. Zhang\*<sup>\*</sup>, Y. Li (Colorado School of Mines)

8:25 AM.....**Accelerating the Geologic Hydrogen Industry's Learning Curves** | I. Sharma\* (Renaissance Philanthropy)

8:50 AM.....**A First Look at a Natural Hydrogen System "In the Wild": MAX Power's Lawson Saskatchewan Natural Hydrogen Discovery** | R. Narayanasamy<sup>1</sup>, S. Halabura<sup>1</sup>, C. Levesque<sup>2\*</sup> (1. MAX Power Mining Corp.; 2. MAX Power Mining Corp. (Non-Author))

9:15 AM.....**Panel Discussion**

### SS 14 Near Surface Geophysics and the Human-Impacted Environment 1

*Session Chairs: Haipeng Li and Nori Nakata*

**Location: 360B**

8:00 AM.....**Adjoint-State Traveltime Tomography for Characterizing Subsurface Seismic Velocity Heterogeneity and Anisotropy** | P. Tong\*, J. Chen, S. Hao, M. Xu (Nanyang Technological University)

8:25 AM.....**Near-surface, geophysical investigations beneath the levees of the Lower Mississippi Valley** | J. M. Lorenzo<sup>1\*</sup>, T. M. Ali<sup>1</sup>, J. Crane<sup>2</sup>, J. Hicks<sup>1</sup>, D. Locci-Lopez<sup>2</sup>, J. Shen<sup>4</sup>, K. Hayashi<sup>3</sup>, F. T. Tsai<sup>1</sup> (1. Louisiana State University; 2. Chevron; 3. Kyoto University; 4. Shell)

8:50 AM.....**Influence of fiber-optic cable deployment on DAS sensitivity to pipeline leak sound signals** | M. Jasiak<sup>1\*</sup>, J. Liu<sup>1</sup>, H. Nonaka<sup>2</sup>, Y. Yokota<sup>2</sup>, T. Illangasekare<sup>3</sup>, P. Hubbard<sup>4</sup>, K. Soga<sup>1</sup> (1. University of California, Berkeley; 2. Kajima Corporation; 3. Colorado School of Mines; 4. FiberSense)

9:15 AM.....**Near Surface Imaging and Infrastructure Monitoring Using Distributed Acoustic Sensing (DAS) Arrays – Challenges and Lessons Learned for Engineering Applications** | D. Fratta\* (University of Wisconsin-Madison)

### SS 15 Agentic Artificial Intelligence for Geoscience: Principles and Case Studies

*Session Chairs: Susan Nash and Yitian Xiao*

**Location: 361B**

8:00 AM.....**Agentic AI for geoscience: from fragmented machine learning workflows to integrated, autonomous subsurface analysis** | Y. Xiao\* (DDE Zhejiang International Research Center)

8:25 AM.....**Agentic AI for subsurface workflows: Well Log digitization to formation tops prediction** | S. Garg\* (DataVedik)

8:50 AM.....**The Agentic Revolution: Autonomous Multi-Objective AI for Legacy Asset Revitalization and Subsurface Integration** | S. Nash\* (AAPG)

9:15 AM.....**An Agentic Geoscience System for Basin-Scale Well Interpretation and Prospect Screening - A Case Study on the Williston Basin** | V. Guillot (SLB)

### SS 16 History of Petroleum Geosciences 1

*Session Chairs: Matt Silverman and Ali Sloan*

**Location: 370A**

8:00 AM.....**How did we get here? On the interplay between geology and geophysics in the evolution of exploration concepts and technologies** | S. Saleh\* (The University of Texas at Austin)

8:25 AM.....**"May the source be with you": evolution of source rock and petroleum system science through the life and work of Wallace Dow (1937-2016)** | R. Sorkhabi\* (University of Utah)

- 8:50 AM.....**You must remember this: The evolving relationship between Hollywood and the oil patch** | M. Silverman\* (Consulting Petroleum Geologist)
- 9:15 AM.....**Conformance: An Overlooked Way to Improve Secondary Recovery (Waterflood) in Conventional Reservoirs: Examples from Early Discovered Fields, Permian Super Basin** | R. F. Lindsay\* (Lindsay Consulting LLC)

### SS 17 Novel Passive Seismic Case Studies

*Session Chairs: Adam Baig and Daniel Hollis*

**Location: 372C**

- 8:00 AM.....**Shear-velocity estimation from passive, uncorrelated records of DAS Scholte waves off the Texas coast** | A. Titova<sup>1\*</sup>, A. Bakulin<sup>1</sup>, S. Gelinsky<sup>2</sup> (1. Bureau of Economic Geology, University of Texas at Austin; 2. Ephangeli Enterprises)
- 8:25 AM.....**Asynchronous passive seismic surveys to facilitate deployment in challenging environment** | S. Beauprêtre<sup>2</sup>, L. Stehly<sup>1</sup>, L. Gisselbrecht<sup>2\*</sup>, C. A. Gradon<sup>2</sup>, D. Hollis<sup>2</sup> (1. Isterre/CNRS; 2. Sisprobe)
- 8:50 AM.....**Passive seismic monitoring of the San Jacinto fault zone using train tremors and a long-term dense nodal array** | Q. Higuere<sup>7\*</sup>, F. Lavoué<sup>2</sup>, Y. Sheng<sup>3</sup>, F. Brenguier<sup>2</sup>, A. Mordret<sup>4</sup>, C. Aubert<sup>2</sup>, D. Hollis<sup>1</sup>, F. Vernon<sup>5</sup>, Y. Ben-Zion<sup>6</sup> (1. Sisprobe SAS; 2. Univ. Grenoble Alpes, CNRS, Univ. Savoie Mont Blanc, IRD; 3. USTC, University of Science and Technology of China; 4. Geological Survey of Denmark and Greenland (GEUS); 5. Scripps Institution of Oceanography, University of California; 6. University of Southern California; 7. Geological and Planetary Science Division, California Institute of Technology)
- 9:15 AM.....**Panel Discussion and Audience Q&A**

### TL 1 Full-Waveform Inversion

*Session Chairs: Paritosh Singh and Bartosz Szydlak*

**Location: 370B**

- 8:00 AM.....**Joint 4D elastic full waveform inversion using ocean bottom nodes P-component data with minimum processing in Santos Basin** | M. D. Carneiro\*, E. Saragoussi, S. Trezzi, A. Sladkovsky, P. Barros, G. Dutta, X. Cheng (SLB)
- 8:25 AM.....**A multiple-shuttle null-space strategy for 4D FWI uncertainty assessment** | A. Bulcao<sup>2\*</sup>, P. D. de Lima<sup>1</sup>, J. M. Araujo<sup>1</sup>, G. Catao Alves<sup>2</sup>, B. Pereira Dias<sup>2</sup>, U. J. Furtado<sup>2</sup>, P. R. Bertussi<sup>2</sup>, P. M. Barros<sup>2</sup> (1. UFRN; 2. PETROBRAS)
- 8:50 AM.....**Joint active-passive seismic full waveform inversion applied to quasi-continuous CO2 monitoring** | X. Cai<sup>1\*</sup>, K. Innanen<sup>1</sup>, Q. Hu<sup>2</sup>, T. Zhang<sup>1</sup> (1. University of Calgary; 2. Stanford University)
- 9:15 AM.....**Advancing 4D Seismic Imaging at Stones Using Elastic 4D FWI** | P. El Khoury<sup>1\*</sup>, T. Krupovnickas<sup>1</sup>, J. J. Kimbro<sup>1</sup>, U. Zimmer<sup>2</sup>, D. Kiyashchenko<sup>1</sup>, C. Theriot<sup>1</sup> (1. Shell International Exploration and Production Inc.; 2. Shell Exploration & Production Company)

### ACQ 5 Land Hardware Technology

*Session Chairs: Bruce Karr and Scott Baker*

**Location: 371B**

- 10:20 AM...**Evaluation of low cost 5 Hz geophones for regional earthquake monitoring: a field comparison with broadband seismometers** | X. Fang<sup>1\*</sup>, Y. Zheng<sup>1</sup>, Z. Zhang<sup>1</sup>, J. Villagomez<sup>1</sup>, T. Chen<sup>2</sup> (1. University of Houston; 2. SensorEra Inc)
- 10:45 AM...**Physical AI Models for Autonomous Placement and Retrieval of Land Seismic Nodes Using Robotic Arms** | P. Golikov, E. Alfataierge\* (Saudi Aramco)
- 11:10 AM...**Low distortion sweep technique for conventional vibrators** | T. Wei, Y. Zhu\*, D. Wang, G. Wei, M. Nie (BGP)
- 11:35 AM...**Development and application of high-efficiency acquisition technology for accelerated weight drop sources and a high-precision time-break(TB) acquisition system** | J. Bai\*, D. Wang, L. Zhai, Y. Zheng, Y. Qi, S. Guo, y. wang, Y. Yang (BGP)

### CAEV 2 Advances in Characterizing Carbonates

*Session Chairs: Cecilia Lopez-Gamundi and Jara Schnyder*

**Location: 372B**

- 10:20 AM...**A Flume Tank Experiment for Early Marine Carbonate Cementation** | P. Lu<sup>1</sup>, N. A. Michael<sup>1</sup>, A. Abbad<sup>1</sup>, R. Zuhlke<sup>1</sup>, A. Perbawa<sup>2\*</sup> (1. Saudi Aramco; 2. Saudi Aramco (Non-Author))
- 10:45 AM...**An optimized transmission based hyperspectral thin section imaging device applied to Upper Cambrian carbonates from Central Texas** | J. M. Proctor<sup>1\*</sup>, F. Körting<sup>1</sup>, O. Birkeland<sup>1</sup>, A. Droxler<sup>2</sup> (1. Hypspec; 2. Rice University)
- 11:10 AM...**Turbulent jet deposition of an inertial-dominated carbonate delta (Lower Mississippian): An alternative hypothesis for interpreting grainy crinoid-bryozoan "mounds"** | C. R. Handford<sup>1\*</sup>, D. Ortega-Ariza<sup>2</sup>, A. Peterson<sup>2</sup> (1. Independent; 2. University of Kansas/Kansas Geological Survey)
- 11:35 AM...**Impact of magnesium smectites mesodiagenesis in the carbonate reservoir quality, a reactive transport modelling study** | C. W. Ramnani<sup>1\*</sup>, N. Collard<sup>2</sup>, A. Lemgruber-Traby<sup>2</sup>, C. Meiller<sup>2</sup>, A. L. Sartorato<sup>1</sup>, M. A. dos Reis<sup>1</sup>, D. L. Faria<sup>1</sup>, O. G. de Souza Jr<sup>1</sup> (1. Petrobras; 2. IFP Energies nouvelles)

### DMLA 8 Seismic Processing 2

*Session Chairs: Kun Guo and Adam Halpert*

**Location: 362A**

- 10:20 AM...**SeisDiff-FNO: Seismic Data Enhancement Using Fourier Neural Operator within a Conditional Diffusion Framework** | A. Traversa<sup>1</sup>, U. Waheed<sup>1\*</sup>, A. Alali<sup>2</sup>, T. Alkhalifah<sup>3</sup> (1. King Fahd University of Petroleum and Minerals; 2. Saudi Aramco; 3. KAUST)
- 10:45 AM...**Geo-VAE: A unified variational autoencoder for 3D geophysical data compression and latent processing** | B. Deng\*, Y. Dou, Z. Guo, X. Wu (University of Science and Technology of China)
- 11:10 AM...**Demigration-constrained ensemble deep model for crossing-dip seismic data reconstruction** | R. Xiang<sup>1\*</sup>, Q. Li<sup>1</sup>, L. Gao<sup>2</sup>, L. Fu<sup>1</sup> (1. State Key Laboratory of Deep Oil and Gas, China University of Petroleum(East China); 2. Sinopec Northwest Oil Field Company)





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## Wednesday, 19 August

11:35 AM ...**How to stop throwing your data away** | M. Vyas\*, H. Tharakhbushanam, U. Majeed, A. Skeen, C. Harkin, K. St Clair (BP)

### DMLA 9 Machine Learning from Reservoir Properties to Portfolio Decisions

*Session Chairs: Antonio Buono and Quentin Corlay*

**Location: 372A**

10:20 AM ...**Hybrid Gorilla Troops Optimization–Backpropagation Neural Network for Porosity and Permeability Prediction: A Case Study from the Sleipner Field, North Sea** | P. K. Eshun<sup>1</sup>\*, C. Nuamah<sup>1</sup>, S. Yeliseti<sup>1</sup>, E. Ansah<sup>2</sup> (1. Texas A&M University-Kingsville; 2. Department of Petroleum Geosciences and Engineering, University of Mines and Technology)

10:45 AM ...**WITHDRAWN: Real-Time Prediction of Unconventional Pay Zones in Tight Sand Reservoirs using Supervised Machine Learning** | H. J. Aqeel\*, A. A. Alkhalidi, B. M. Albensaad (Saudi Aramco)

11:10 AM ...**AI-automated play fairway mapping and prospect de-risking: from the methodology that found 4 billion barrels to a scalable platform for bid round evaluation** | O. Joel\*, E. Onuorah, E. Mogbolu, E. Hanson (Toluai)

11:35 AM ...**From ensemble modeling to capital allocation: Propagating subsurface uncertainty into financial risk** | M. Ayzenberg<sup>2</sup>, K. Mehta<sup>1</sup>\*, O. Spjeld<sup>2</sup> (1. KM Geo-Consulting Services LLC; 2. OptiField)

### FWI 8 Case Studies from Gulf of America 2

*Session Chairs: Yaxun Tang and Brad Wray*

**Location: 351A**

10:20 AM ...**Full-waveform inversion enabled by hybrid source acquisition for enhanced low-frequency** | J. Tan\*, S. Das, I. Williams, J. Izquierdo, C. Espinoza, J. Gaeman, R. Gu, Y. Yu, O. G. Perez Ramirez, J. S. Law, R. Masuda, K. Glaccum, D. Vigh (SLB)

10:45 AM ...**Imaging below near-surface biogenic gas in ultra-shallow water GoA using vintage seismic** | T. Dy\*, S. Huang, S. Mothi (Viridien)

11:10 AM ...**Breaking Through Complex Salt: Harnessing the Interplay of Time-Space-Lag Adaptive Waveform Inversion and Reflection Waveform Inversion** | N. Shah<sup>1</sup>\*, C. Mavropoulos<sup>1</sup>, T. Oxford<sup>1</sup>, M. Liu<sup>2</sup> (1. S-Cube; 2. Shell)

11:35 AM ...**Fast track imaging with FDR – a case study from the Green Canyon in the U.S. Offshore** | W. Ibanez Jacome, Z. Feng, J. Mao, A. Pavlovskaya, Y. Yu, H. Li\*, O. Ajose, R. Hammans (SLB)

### LAC 4 South Atlantic and Conjugate Margin

*Session Chairs: Jose De Vera and Hamish MacIntyre*

**Location: 361A**

10:20 AM ...**KEYNOTE: Bridging the Atlantic: Namibia Discoveries and Their Implications for Uruguay's Offshore Prospectivity** | P. Gristo, B. Conti\* (ANCAP)

10:45 AM ...**Understanding Source Risk in Offshore Argentina: Lessons Learned from Argerich-1** | M. A. Reynald, J. Smith\*, R. James, C. Gravestock (Halliburton)

11:10 AM ...**Revised, regional stratigraphic correlation of the Barremian-Aptian in the South Atlantic conjugate margins and its impact on the understanding of marine source rocks** | A. G. Candido<sup>1</sup>\*, P. Mann<sup>2</sup> (1. Petrobras; 2. University of Houston)

11:35 AM ...**Supergiants and surprises: E&P realities in the pre-salt plays of the Santos and Kwanza basins** | F. Fernandes\*, G. Meliato, L. Pimentel, R. P. Bedregal (S&P Global Energy)

### LCS 1 Storage Characterization 1

*Session Chairs: Shamik Bose and Nadia Mouedden*

**Location: 371A**

10:20 AM ...**Evaluating co2 storage in siliciclastic-carbonate reservoirs using an integrated stratigraphy and simulation approach** | N. Din<sup>1</sup>\*, M. Valderrama<sup>1</sup>, M. Slinde<sup>1</sup>, J. Zhou<sup>2</sup> (1. Aramco; 2. Aramco (Non-Author))

10:45 AM ...**Structural Characterization for Long-Term CO2 Storage in the Delaware Basin** | T. Ude-Akpeh<sup>1</sup>\*, P. Pothana<sup>1</sup>, J. Lee<sup>1</sup>, R. Trentham<sup>1</sup>, M. Henderson<sup>1</sup>, R. Dupree<sup>2</sup> (1. University of Texas Permian Basin; 2. Omnia Midstream Partners)

11:10 AM ...**America's Gulf Coast rising: New life for a proven asset integrating updated seismic and machine learning techniques** | J. Schulenberg\* (Explorer Group 1)

11:35 AM ...**Geochemical and Multiscale Characterization of Tight Carbonates Using Integrated SEM, XRD, and CT Analysis: Implications for CCS and CCUS-EOR Feasibility in the Permian Basin** | M. Khan<sup>1</sup>\*, L. Hathon<sup>1</sup>, M. Myers<sup>1</sup>, D. Siddiqui<sup>1</sup>, B. J. McPherson<sup>2</sup>, G. C. Thakur<sup>1</sup> (1. University of Houston; 2. University of Utah)

### SG 2 Structural Styles: Lithosphere to Thin Section

*Session Chairs: Jim Hnat and Lachlan Wright*

**Location: 372C**

10:20 AM ...**Exploration OBN datasets pave the way for a new interpretation of the deep salt and crustal architecture in the deepwater Gulf of America** | D. Carruthers, E. Kneller, L. Hunt, C. Watkins\* (Viridien)

10:45 AM ...**How salt-deposition timing shapes suprasalt deformation processes on rifted continental margins: a geomechanical study** | X. Ding<sup>1</sup>\*, T. P. Dooley<sup>1</sup>, L. G. Moscardelli<sup>2</sup>, M. Hudec<sup>1</sup>, S. Brune<sup>3</sup>, K. Li<sup>3</sup>, N. A. Celini<sup>1</sup> (1. The University of Texas at Austin; 2. Bureau of Economic Geology; 3. GFZ Helmholtz Center for Geosciences)

11:10 AM ...**Unique Faults Within Lacustrine Rocks: Examples From the Green River Formation of the Uinta Basin** | R. Brinkerhoff\* (Consultant)

11:35 AM ...**Stratigraphic Traps – How much hydrocarbon column can they hold?** | J. Flood-Page\*, I. Billeaud, C. Borghi (TotalEnergies E&P)



Wednesday, 19 August

## SMT 1 Numerical Methods, Wave Propagation and Wave Phenomena 1

Session Chairs: James McLeman and Partha Routh

Location: 361B

- 10:20 AM... **A Quantum Path-Integral for the Computation of Reflectivity Synthetic Seismograms** | M. Sen\* (The University of Texas at Austin)
- 10:45 AM... **Narrow-frequency band finite-difference-based seismic waveform modeling using compact stencils** | R. Biswas<sup>1\*</sup>, J. Etgen<sup>1</sup>, S. Luo<sup>1</sup> (1. bp)
- 11:10 AM... **Complex-valued time domain viscoacoustic wave equation with higher-order time derivative** | C. N. da Costa\*, M. D. Gadelha, S. S. Galvão, S. Xavier de Souza, T. Barros (Federal University of Rio Grande do Norte)
- 11:35 AM... **Solving the elastodynamic equations in curvilinear coordinates using asymmetric operators** | A. Bartana\*, J. Xu, J. Rickett (SLB)

## SP 6 Interpolation, Reconstruction and 4D Regularization

Session Chairs: Faruq Akbar and Xu Li

Location: 362B

- 10:20 AM... **Joint interpolation of ocean bottom node gathers with multiple source types** | Z. Yan\*, M. Vassallo, D. Boiero, A. Kanrar, P. Caprioli (SLB)
- 10:45 AM... **Reliable Imaging with Sparse WAZ via NAZ Guided 4D Regularization** | G. Begnini\* (TGS)
- 11:10 AM... **Seismic data interpolation using neural representations with hybrid Fourier-hash encoding** | L. WANG<sup>1</sup>, O. Saad<sup>2</sup>, S. Wang<sup>2\*</sup>, F. Min<sup>1</sup>, T. Alkhalifah<sup>2</sup> (1. Southwest Petroleum University; 2. King Abdullah University of Science and Technology)
- 11:35 AM... **A physics-informed self-supervised approach to dealiased data reconstruction** | C. Li<sup>1\*</sup>, S. Fomel<sup>1</sup>, S. Swaminadhan<sup>1</sup>, H. Corzo Pola<sup>2</sup>, Y. Chen<sup>1</sup> (1. The University of Texas at Austin; 2. DUG)

## SS 18 Geologic Hydrogen Exploration and Production 2

Session Chairs: Yaoguo Li and Mengli Zhang

Location: 360A

- 10:20 AM... **Geologic Hydrogen in Iowa: Background, Evidence of Recorded Occurrences, and Additional Frontiers** | J. Honings\*, R. J. Clark, J. Malone (Iowa Geological Survey)
- 10:45 AM... **From geophysical anomalies to H<sub>2</sub> generation processes: The utility of magnetotelluric phase tensors in geologic hydrogen exploration** | B. Cherkose\*, M. Zhang (Colorado School of Mines)
- 11:10 AM... **A prospectivity framework for identifying optimal Engineered Mineral Hydrogen sites** | C. McCulley\* (Vema Hydrogen)
- 11:35 AM... **Enabling in-situ hydrogen production via serpentinization: technology transfer from oil and gas industry** | R. Czarnota\* (New Mexico Institute of Mining and Technology)

## SS 19 Near Surface Geophysics and the Human-Impacted Environment 2

Session Chairs: Dan Glaser and Kris MacLennan

Location: 360B

- 10:20 AM... **Water seepage evaluation using Vp/Vs ratio in the Orzepowice embankment, southern Poland** | E. R. Mohamed\*, M. Majdanski (Institute of Geophysics Polish Academy of Sciences)
- 10:45 AM... **Well integrity characterization and monitoring with optical and electromagnetic reflectometry** | Y. Wu\*, L. Luo, J. Wang (Lawrence Berkeley National Laboratory)
- 11:10 AM... **Locating legacy wells using AI-aided smartphone magnetometry** | S. Nimri, C. Stauffer, S. Kohtz, S. Saneiyani\* (Binghamton University)
- 11:35 AM... **Smartphone magnetometry for near-surface environmental characterization and space weather detection** | M. Nair\*, R. Saltus, N. Boneh (University of Colorado)

## SS 20 History of Petroleum Geosciences 2

Session Chairs: Matt Silverman and Ali Sloan

Location: 370A

- 10:20 AM... **Mobil Oil's history and exploration in the Madre de Dios in Peru, 1994-2000** | N. J. House<sup>1\*</sup>, P. S. Cunningham<sup>2</sup> (1. Integrated Geophysical Interpretation Inc., LLC; 2. Amigos Energy Advisors, L.L.C.)
- 10:45 AM... **How to reconfigure the global bargaining map of resource-poor countries: Enrico Mattei, Eni, and the Reinvention of Oil Concessions (1945-1962)** | D. Minisini<sup>2</sup>, M. A. Capello<sup>1\*</sup> (1. Red Tree Consulting, LLC; 2. Rice University and Exxon)
- 11:10 AM... **Five centuries of resource governance: from colonial mining law to the 2026 hydrocarbon reform in Venezuela** | M. A. Capello\* (Red Tree Consulting, LLC)
- 11:35 AM... **Panel Discussion**

## TL 2 Acquisition, Processing and Analysis

Session Chairs: Daniel Davies and Shauna Oppert

Location: 370B

- 10:20 AM... **Can We Shoot Faster? 4D Quality Trade-Offs in Reduced-Effort Monitor Surveys** | J. Shi<sup>1\*</sup>, C. Theriot<sup>1</sup>, J. J. Kimbro<sup>1</sup>, K. Godfrey<sup>1</sup>, M. Tatanova-Malhairé<sup>1</sup>, P. Buenafama<sup>1</sup>, T. Noble<sup>2</sup> (1. Shell; 2. Shell US)
- 10:45 AM... **Data-driven SNR and repeatability assessment of submarine DAS for monitoring and characterization** | A. Bakulin<sup>1\*</sup>, I. Silvestrov<sup>2</sup> (1. University of Texas at Austin; 2. Independent Researcher)
- 11:10 AM... **Time-lapse reverse time migration with exact illumination compensation: theory and numerical analysis on the Kimberlina CO<sub>2</sub> sequestration model** | J. Wang\*, G. ZHOU, Q. Li (Beijing Huairou Laboratory)
- 11:35 AM... **Qualifying the Reliability of Opportunistic 4D for Seismic Monitoring** | C. Lazizi<sup>1</sup>, S. Marinets<sup>1</sup>, A. Hovden<sup>1</sup>, S. De Pierpont<sup>1</sup>, D. Lecerf<sup>1</sup>, C. Hildago<sup>2</sup>, K. Haavik<sup>2</sup>, R. Milne<sup>2</sup>, D. M. Davies<sup>3\*</sup> (1. TGS; 2. AkerBP; 3. TGS (Non-Author))



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## Wednesday, 19 August

### ACQ 6 Land Seismic Challenges

*Session Chairs: John Naranjo and Mike Yates*

**Location: 371B**

- 1:20 PM.....**Quantifying offset-dependent seismic prestack data quality using data-driven metrics across different acquisition geometries** | A. Rohatgi<sup>1\*</sup>, A. Bakulin<sup>1</sup>, H. Odhwani<sup>2</sup>, S. Fomel<sup>1</sup> (1. University of Texas at Austin; 2. TGS)
- 1:45 PM.....**High-density seismic acquisition technology and its application in ultra-high altitude and strongly modified area** | Y. Wu<sup>1\*</sup>, Z. He<sup>2</sup>, W. Li<sup>1</sup>, Y. Wang<sup>3</sup>, P. Yuan<sup>1</sup>, W. Li<sup>1</sup> (1. BGP, CNPC; 2. CDUT; 3. Qinghai Oilfield Company, PetroChina)
- 2:10 PM.....**Delaware Basin fill zone revealed for the first time ever: How HTD field test uncovered the geologic near-surface mysteries hiding the richest unconventional resource play in the world** | B. Karr<sup>1\*</sup>, A. Lewis<sup>1</sup>, S. Klug<sup>1</sup>, M. Henry<sup>1</sup>, L. Zheng<sup>2</sup>, S. SUN<sup>2</sup> (1. Fairfield Geotechnologies; 2. Viridien)
- 2:35 PM.....**Comparing novel methods for removing the near surface effect on land seismic imaging** | C. Stork<sup>\*</sup> (Land Seismic Noise Specialists)

### DMLA 10 Machine Learning for Structural Geology and Borehole Imaging Analysis

*Session Chairs: Justin Birdwell and Wen Pan*

**Location: 372A**

- 1:20 PM.....**Deep learning-based prediction of strike-slip fault damage zones and fault cores using 3D forward modeling: A case study from the Shunbei Oilfield, Tarim Basin** | R. Gao<sup>\*</sup>, B. Zhu, S. Cao, S. Liang, L. Ma, L. Yang (Sinopec Geophysical Research Institute)
- 1:45 PM.....**From Geochemical Fronts to Hydraulic Compartments: Application of Machine Learning, Geo-statistics and Segmentation Algorithms with Physics-Based Validation** | A. Fahimuddin, I. Atwah, W. Saeed, T. Alauddin<sup>\*</sup> (Saudi Aramco)
- 2:10 PM.....**Augmented End-to-End Automated Workflow for Breakout Detection in Borehole Image Logs** | M. Awada<sup>1\*</sup>, G. Barbacini<sup>2</sup>, R. Berto<sup>2</sup>, M. Pelorosso<sup>2</sup>, A. Escobar<sup>1</sup>, C. Shrivastava<sup>1</sup> (1. SLB; 2. ENI)
- 2:35 PM.....**Multi Agentic AI Framework for Autonomous Fracture Detection and Characterization from Borehole Imaging data** | Y. Agbor, A. Lu<sup>\*</sup>, R. Mathis (Amazon Web Services)

### FWI 9 Imaging and Amplitude Versus Angle

*Session Chairs: Yanhua Liu and Jaime Ramos-Martinez*

**Location: 360B**

- 1:20 PM.....**FWI Imaging Gather for AVA attributes** | G. Liu<sup>\*</sup>, X. He, R. Gong, Z. Wu, J. Mei, Z. Zhang (Viridien)
- 1:45 PM.....**Full waveform inversion derived reflectivity angle gathers with angle-dependent modeling** | J. Mao<sup>\*</sup>, J. Xu, X. Cheng, Z. Feng, X. Zhao, F. Golfre' Andreasi, D. Vigh (SLB)
- 2:10 PM.....**Recovering AVA from FWI-based angle gathers using an augmented acoustic wave equation** | K. Torres, J. McLeman<sup>\*</sup> (DUG Technology)

- 2:35 PM.....**Connecting full-wavefield LSRTM and FWI-derived reflectivity** | M. Davydenko<sup>\*</sup>, P. Jilek, A. Lomas, M. Vyas, G. Xia, R. Johnston (bp)

### GEFE 2 Creating Digital Outcrop Models for Industry and Beyond

*Session Chairs: Rene Jonk and Dolores van der Kolk*

**Location: 372B**

- 1:20 PM.....**KEYNOTE: Incorporating digital imaging techniques into outcrop investigations to archive important outcrops and provide reservoir models** | P. P. Flaig<sup>\*</sup>, D. van der Kolk (The University of Texas at Austin)
- 1:45 PM.....**A new window to the world: A drone photogrammetry preview of the best outcrop analogue for deltaic reservoirs, North Slope of Alaska** | D. van der Kolk<sup>\*</sup>, P. P. Flaig (The University of Texas at Austin)
- 2:10 PM.....**Digital outcrop models synthesize legacy and new outcrop data to train the next generation of geoscientists: An example from the Brushy Canyon Formation, Delaware Mountain Group, Permian Basin, Texas** | Z. Jobe<sup>1\*</sup>, B. Burnham<sup>2</sup>, C. Rossen<sup>4</sup>, R. Beaubouef<sup>3</sup> (1. Colorado School of Mines; 2. VRGeoscience Limited; 3. RTB Geoscience; 4. Santa Fe, NM)
- 2:35 PM.....**Integrating Digital Outcrops, Core, and Subsurface Models Using Extended Reality (XR) Tools** | R. Domisse<sup>\*</sup>, C. Kerans, X. Janson, C. Zahm (University of Texas at Austin)

### IPS 1 Induced Seismicity and Monitoring

*Session Chairs: Uzonna Anyiam and Weiping Cao*

**Location: 362A**

- 1:20 PM.....**Transmission Tomography of the Delaware Basin's Seismogenic Basement** | A. M. Baig<sup>\*</sup> (Nanometrics)
- 1:45 PM.....**Transfer learning for diffusion model-based microseismic event location** | Y. Yang<sup>\*</sup>, O. Saad, T. Alkhalifah (King Abdullah University of Science and Technology)
- 2:10 PM.....**A microseismic event occurred eleven months after the end of CO2 injection** | B. Gurevich<sup>1\*</sup>, O. Collet<sup>1</sup>, i. Almukhametov<sup>1</sup>, K. Tertyshnikov<sup>1</sup>, P. Shashkin<sup>1</sup>, R. Isaenkov<sup>1</sup>, M. Vorobev<sup>1</sup>, R. Pevzner<sup>1</sup>, S. Glubokovskikh<sup>2</sup> (1. Curtin University; 2. LBNL)
- 2:35 PM.....**Microseismic bulletin relationships from four years of monitoring using permanent SADAR arrays** | K. D. Hutchenson, P. Nyffenegger<sup>\*</sup>, C. Yelton, D. u. Quigley, E. B. Grant (Geospace Technologies)

### LAC 5 Unlocking Opportunities in Latin America

*Session Chairs: Gerardo Gaitan and Adam Goss*

**Location: 361A**

- 1:20 PM.....**KEYNOTE: Peru's Natural Gas Investment Opportunity: Unlocking a Proven System with Untapped Potential** | Y. A. Calderon<sup>\*</sup> (Perupetro)
- 1:45 PM.....**Unlocking Ecuador's offshore potential through modern seismic reprocessing** | K. Rodriguez<sup>\*</sup> (Searcher Seismic)
- 2:10 PM.....**Challenges in onshore seismic imaging of Paraná Basin, Brazil** | I. D. Encarnacao<sup>1\*</sup>, C. Siedschlag<sup>1</sup>, J. Caldeira<sup>1</sup>, E. Faria<sup>1</sup>, S. Freire<sup>2</sup>, H. Schots<sup>2</sup> (1. Eneva; 2. CPGeo)

## Wednesday, 19 August

2:35 PM.....**Dramatically derisking exploration and field development in thrust belts with minimal seismic data: a Bolivia sub-Andean thrust belt case study** | R. Schrynmeeckers\* (Amplified Geochemical Imaging LLC)

### LCS 2 Storage Characterization 2

*Session Chairs: Neeraj Gupta and Gabriel Unomah*

**Location: 371A**

1:20 PM.....**CO2 Containment Assurance; Necessary Geophysical Data Needed for CCS Risk Assessments** | R. Decesari\*, M. Garcia (RyderScott)

1:45 PM.....**Evaluation of geological CO2 storage resources in the Pennsylvanian Cherokee (Desmoinesian) Group of central and north-central Oklahoma** | M. Akif<sup>1</sup>\*, A. Turnini<sup>2</sup>, M. J. Pranter<sup>1</sup> (1. University of Oklahoma; 2. Mother Earth Energy, LLC)

2:10 PM.....**CO2–Brine–Rock Interactions in Sandstone: Experimental Evidence of Carbonate Dissolution and PHREEQC-Based Interpretation** | M. Ahmed\*, B. Dindoruk (Texas A&M University)

2:35 PM.....**Evaluating Seals/Compartments/Tight Zones and Subsurface Hydrocarbon Migration History of the Rome Trough in West Virginia for Carbon Capture and Sequestration Applications** | C. Smith<sup>1</sup>\*, C. Wilcox<sup>2</sup>, P. Dinterman<sup>2</sup>, J. Moore<sup>2</sup>, T. M. Smith<sup>1</sup>, P. S. Gordon<sup>1</sup>, M. M. Smith<sup>2</sup> (1. Advanced Hydrocarbon Stratigraphy; 2. West Virginia Geological and Economic Survey)

### SG 3 Rock Mechanics and Deformation

*Session Chairs: Sochi Iwuoha and James Kessler*

**Location: 372C**

1:20 PM.....**Textural controls of mechanical properties in anhydrite, Permian Basin USA** | A. Rathbun<sup>1</sup>\*, J. Kong<sup>1</sup>, A. Roark<sup>2</sup> (1. Chevron; 2. Chevron North America E&P)

1:45 PM.....**WITHDRAWN: Numerical simulation of CO2-driven horizontal fracturing using 3DEC for carbon storage: a case study of the Lower Indus Basin, Pakistan** | A. Ibrahim<sup>1</sup>\*, M. Hussain<sup>1</sup>, M. Malik<sup>2</sup>, M. T. Malik<sup>3</sup>, M. Malik<sup>4</sup> (1. Quaid-i-Azam University, Islamabad; 2. University of Alberta; 3. Lamar University; 4. Peshawar University)

2:10 PM.....**Physics-driven prediction of sub-seismic fracture likelihood from fault-induced stress fields using elastic dislocation modeling** | T. Q. Agbaje\*, S. Fomel, Y. Chen (University of Texas at Austin)

2:35 PM.....**De-Risking Frontier Basins: An integrated 2D seismic and geomechanical approach for hydraulic seal capacity assessment** | D. M. Cortes\* (Ecopetrol)

### SMT 2 Imaging, Inversion, and Interpretation

*Session Chairs: Gokay Bozkurt and Yaxun Tang*

**Location: 361B**

1:20 PM.....**Stochastic reverse-time migration via machine learning-assisted pseudo-MCMC** | S. Han<sup>1</sup>, S. Baek<sup>1</sup>\*, Y. Cho<sup>1</sup>, J. Shin<sup>2</sup> (1. Seoul National University; 2. Korea Institute of Geoscience and Mineral Resources)

1:45 PM.....**Uncertainty Quantification with memory-efficient Invertible Neural Networks in PyTorch** | N. Luiken<sup>1</sup>\*, G. Rizzuti<sup>2</sup>, M. Ravasi<sup>2</sup>, I. Vasconcelos<sup>2</sup> (1. NVIDIA; 2. Shearwater GeoServices)

2:10 PM.....**Applications of Information Theory in Quantitative Seismic Interpretation** | J. P. Castagna<sup>1</sup>\*, V. Kronberg<sup>2</sup>, G. Gil<sup>2</sup> (1. University of Houston; 2. Lumina Geophysical)

2:35 PM.....**Joint Velocity and Q Tomography Based on Wave Equation** | X. Tang, Q. Li\*, L. Fu (China University of Petroleum, East China)

### SP 7 Tomography and Full-Waveform Inversion

*Session Chairs: Odette Aragao and Cintia Lapilli*

**Location: 362B**

1:20 PM.....**Imaging through Alaskan permafrost and slump blocks with high-density land data and FWI** | R. Zhang<sup>2</sup>, Q. Tong<sup>2</sup>, G. Shao<sup>2</sup>, n. Chazalnoel<sup>2</sup>, M. Warren<sup>3</sup>, H. Bi<sup>1</sup>\*, E. Castongia<sup>1</sup>, R. Jacobsen<sup>1</sup> (1. ConocoPhillips; 2. Viridien; 3. former ConocoPhillips)

1:45 PM.....**Joint velocity–slope diffusion for structurally constrained velocity model building** | F. Brandolin\*, T. Alkhalifah (KAUST)

2:10 PM.....**Eikonal equation based traveltimes tomography using direct smoothness regularization** | C. Li\*, Y. Chen (The University of Texas at Austin)

2:35 PM.....**Deep-Image-Prior Parameterized Eikonal Traveltime Tomography** | Y. Liu<sup>1</sup>\*, Y. Wang<sup>2</sup>, P. Yang<sup>2</sup>, H. Salim<sup>3</sup> (1. Aramco Beijing Research Center, Aramco Asia; 2. Harbin Institute of Technology; 3. Saudi Aramco)

### SS 21 Discovery Thinking: Analogs of Perseverance 1

*Session Chairs: Charles Sternbach and Mike Forrest*

**Location: 351A**

1:20 PM.....**The Brookian topset play of the North Slope of Alaska: The hottest conventional oil play in the world** | W. D. Armstrong\* (Armstrong Oil & Gas, Inc.)

2:10 PM.....**From Mamba to Zohr to Baleine to Geng North discoveries: Analysing twenty years of continued exploration success at Eni** | A. Cozzi\*, L. Meciani (Eni S.p.A.)

### SS 22 Advances in Next-Gen Geothermal: Geologic Insights from Active Projects

*Session Chairs: Shuvajit Bhattacharya and Gabe Matson*

**Location: 360A**

1:20 PM.....**Subsurface Characterization and Reservoir Performance Insights from the Fervo Energy's Cape Station Enhanced Geothermal Development** | E. McConville\* (Fervo Energy)

1:45 PM.....**Deep Direct-Use Geothermal Assessment at West Virginia University, Morgantown, West Virginia** | S. Sharma<sup>1</sup>\*, T. R. Carr<sup>1</sup>, E. Fathi<sup>1</sup>, N. Grapati<sup>2</sup>, B. Carney<sup>3</sup> (1. West Virginia University; 2. University of New Haven; 3. Northeast Natural Energy LLC)





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## Wednesday, 19 August

- 2:10 PM.....**Testing Play Fairway Analysis Predictions through Targeted Geothermal Drilling in the Great Basin** | N. Wagoner\*, C. Lindsey, J. E. Faulds (Great Basin Center for Geothermal Energy)
- 2:35 PM.....**Integrated Geothermal Resource Assessment and Play Fairway Mapping of the Texas Gulf Coast for Conventional and Next-Generation Engineering Technologies** | S. Bhattacharya\*, B. Young, M. I. Olariu, C. Uroza, K. Mawa, P. Eichhubl, S. Liu, R. Arasada (The University of Texas at Austin)

### SS 23 Advancing Near-Surface Imaging and Characterization through New Hardware and Algorithms

*Session Chairs: Salman Abbasi and Yanwei Zhang*

**Location: 370A**

- 1:20 PM.....**AI-driven inversion of surface wave dispersion curves** | X. Chen\*, F. Cheng, B. Mi, J. Xia (Zhejiang University)
- 1:45 PM.....**Distributed Acoustic Sensing of Velocity and Attenuation Reveals Thermo-Hydrological Coupling in Thawing Permafrost** | F. Cheng\* (Zhejiang University)
- 2:10 PM.....**Advancing dam seepage monitoring through integrated electrical resistivity tomography and self-potential methods** | A. Ismail<sup>1</sup>\*, P. Adetokunbo<sup>2</sup> (1. Maxima Geophysics; 2. Boone Pickens School of Geology, Oklahoma State University (now at IBM Consulting))
- 2:35 PM.....**Reducing Uncertainty in Sparse Geophysical Data Using K-Means Clustering and Decision Tree Regression** | L. Emishaw\* (Midwestern State University)

### TL 3 Modeling, Inversion and Case Studies

*Session Chairs: Vincent Durussel and Kurang Mehta*

**Location: 370B**

- 1:20 PM.....**Time-lapse seismic inversion using a neural operator** | X. Ma\*, T. Alkhalifah (KAUST)
- 1:45 PM.....**First 4D seismic results in the Búzios pre-salt field: reservoir characterization and management impacts** | E. Born da Silva<sup>1</sup>\*, C. E. Borges de Salles Abreu<sup>1</sup>, M. Costa<sup>1</sup>, L. Silva Queiroz<sup>1</sup>, S. Pedrinha<sup>2</sup>, B. Eustaquio Moreira Lima<sup>1</sup>, R. Huntemann Deucher<sup>1</sup>, É. Nobre Cavalcante<sup>1</sup>, J. Maciel Filho<sup>1</sup> (1. Petróleo Brasileiro S.A.; 2. Petrobras (Petróleo Brasileiro S.A.))
- 2:10 PM.....**Mad Dog 4D modelling for seismic response, reservoir monitoring, and field development** | D. Ni\* (bp America)
- 2:35 PM.....**Preparing time-lapse seismic data to maximize insight** | G. Partyka<sup>1</sup>\*, O. Barkved<sup>2</sup>, S. Fillacier<sup>2</sup>, P. Gutowski<sup>1</sup>, M. Bush<sup>1</sup>, P. Garossino<sup>1</sup>, J. Alison<sup>1</sup>, B. Helvey<sup>1</sup>, S. Michell<sup>1</sup> (1. OpenGeoSolutions Inc.; 2. Petoro AS)

### AAS 4 Multicomponent Seismic

*Session Chairs: Chaoshun Hu and Rui Zhang*

**Location: 371B**

- 3:40 PM.....**eFWI-Enhanced Workflow for Joint PP/PS Inversion: Edvard Grieg Field** | R. Yermakov\*, A. Tura (Colorado School of Mines)

- 4:05 PM.....**Full joint Zoeppritz AVA inversion using PP, PS, SP, and SS reflections: Total-differential and adjoint-state formulation with bootstrap uncertainty quantification** | U. Lim\* (Chevron Technical Center)
- 4:30 PM.....**Interpreting a fracture network in tight gas-sand reservoirs using PS-wave reflectivity** | J. Gaiser\* (Gaiser Geophysical Consulting)
- 4:55 PM.....**Leveraging multiples and mode conversions via full wavefield AVO inversion to reveal true subsurface reflectivity** | E. Mutal<sup>1</sup>\*, H. J. Hansen, K. Rasmussen, R. Cova, F. Horn (Qeye)

### AP 2 Tectonostratigraphy and Hydrocarbon Systems in Complex Basins

*Session Chairs: Vicki Amir and Gregory Blache-Fraser*

**Location: 361B**

- 3:40 PM.....**Characterizing tectonostratigraphic and hydrocarbon systems using geophysical data: Andaman Fore arc Basin, India** | M. Shahriar\*, R. Stewart, D. Hume, M. N. Bugti, M. Castele, N. Gungor (University of Houston)
- 4:05 PM.....**Depositional Framework and Stratigraphic Correlation of Proterozoic Sequences in the Ganga Basin, India** | S. K. Sinha\*, J. Argal (Rajiv Gandhi Institute of Petroleum Technology)
- 4:30 PM.....**WITHDRAWN: Dynamic evolution of fault transport-sealing capacity and its control on hydrocarbon accumulation in the Hangzhou Slope of the Xihu Sag, East China Sea Shelf Basin (ECSSB)** | F. Zheng\*, J. Zeng (China University of Petroleum Beijing, State Key Laboratory of Petroleum Resources and Prospecting)
- 4:55 PM.....**Anatomy and Exploration History of the Supergiant Samotlor Oilfield, West Siberian Basin: Insights from Integrating Well and Reservoir Data** | J. Li\*, L. Zhang (China University of Petroleum (East China))

### BH 2 Advances in Subsurface Interpretation

*Session Chairs: Cengiz Esmersoy and Kristoffer Walker*

**Location: 370A**

- 3:40 PM.....**Array-type multipole sources: extending impedance-loading and radiation theory to circumferential-axial arrays** | T. W. Geerits\*, S. Schimschal, A. Swiatek (Baker Hughes)
- 4:05 PM.....**Streamlining Near-Borehole Traveltime Tomography: A Robust Workflow for Azimuthal Acoustic Arrival-Time Picking** | F. Xia<sup>1</sup>\*, A. Bolshakov<sup>2</sup>, C. Torres-Verdin<sup>1</sup> (1. University of Texas at Austin; 2. Chevron)
- 4:30 PM.....**Reservoir quality variability across the Central Basin Platform–Midland Basin transition** | J. Stark<sup>1</sup>\*, C. Onyeakusi<sup>1</sup>, P. Pothana<sup>1</sup>, J. Lee<sup>1</sup>, R. Bianco<sup>2</sup> (1. The University of Texas Permian Basin; 2. Fasken Oil and Ranch)
- 4:55 PM.....**Decoding Surface Geophone Data with Intelligent Saver Sub for Seismic-while-drilling Analysis** | Y. Liu<sup>1</sup>\*, A. AlDawood<sup>2</sup>, E. Alfataierge<sup>2</sup>, O. Dajani<sup>2</sup> (1. Aramco Beijing Research Center, Aramco Asia; 2. Saudi Aramco)



## Wednesday, 19 August

### DMLA 11 Machine Learning-Driven Seismic Inversion

Session Chairs: Rong Lu and Abdul Wahab

Location: 372A

- 3:40 PM.....**Efficient Seismic Inversion via Diffusion Posterior Sampling with Probability Flow ODE** | C. Hu\* (TGS)
- 4:05 PM.....**Deep Learning-Based Probabilistic 4D Seismic Inversion for Reservoir Pressure and Saturation Changes** | T. Yusbova<sup>1</sup>\*, R. Malikov<sup>2</sup>, K. Matrosov<sup>3</sup> (1. WAVERITY; 2. WAVERITY; 3. WAVERITY)
- 4:30 PM.....**Optimized physics-guided semi-supervised learning for seismic acoustic impedance estimation under sparse-well constraints** | R. F. Alomar\*, Z. Liu, M. Kharji, R. Lubbe (Saudi Aramco)
- 4:55 PM.....**Improving reservoir state estimation in Digital Twins Using Angle-Gather Conditioning and Rock-Physics Context** | A. Gahlot\*, F. J. Herrmann (Georgia Institute of Technology)

### EM 1 New Advancements in Electromagnetic Applications

Session Chairs: Shenghui Li and Sihong Wu

Location: 370B

- 3:40 PM.....**Accuracy of unconstrained CSEM resistivity imaging using Gauss-Newton TTI/VTI algorithm** | D. Baltar\*, F. Roth, C. Twarz, E. Nerland (EMGS ASA)
- 4:05 PM.....**Subsurface resistivity imaging with distributed magnetic sensing** | H. Chen<sup>1</sup>\*, C. Xiong<sup>2</sup>, Z. Dejneka<sup>3</sup>, D. Homa<sup>3</sup>, G. Pickrell<sup>3</sup> (1. University of Iowa; 2. University of Iowa; 3. The Virginia Polytechnic Institute and State University)
- 4:30 PM.....**Monte Carlo dropout for uncertainty quantification in Transformer-based electromagnetic inversion** | I. Fidahoussen, V. Puzyrev\*, Z. Li, L. Liang, P. Bonningue, J. Wang (SLB)
- 4:55 PM.....**Reducing subsurface uncertainty in HDD using UAV-assisted look-ahead sensing** | Y. Su<sup>1</sup>\*, Y. Huang<sup>1</sup>, X. Wu<sup>1</sup>, S. Zeng<sup>2</sup>, J. Pollock<sup>3</sup>, J. Chen<sup>1</sup> (1. University of Houston; 2. Cyentech; 3. Oceanit)

### FWI 10 Land

Session Chairs: Nizar Chemingui and Erik Neumann

Location: 360B

- 3:40 PM.....**Phase driven FWI and its applications to land surveys in Tarim Oil Field** | G. Lei<sup>2</sup>, W. Duan<sup>2</sup>, T. Wu<sup>2</sup>, Y. Huang<sup>1</sup>\*, Y. Zhang<sup>1</sup>, Q. Zhou<sup>1</sup> (1. BGP; 2. Tarim Oilfield Company, PetroChina)
- 4:05 PM.....**Seeing the unseen: FWI onshore 3D imaging reveals hidden basin structure** | T. Li<sup>1</sup>\*, J. Puyear<sup>1</sup>, D. Blymyer<sup>1</sup>, T. Dy<sup>2</sup>, X. Liu<sup>2</sup>, S. Huang<sup>2</sup>, S. Mothi<sup>2</sup> (1. Occidental; 2. Viridien)
- 4:30 PM.....**Elastic full-waveform inversion of surface waves on land data** | S. Schmitt<sup>1</sup>\*, S. Godara<sup>1</sup>, M. Varner<sup>1</sup>, C. Ansorger<sup>1</sup>, F. Mancini<sup>1</sup>, M. Stupe<sup>1</sup> (1. DUG Technology; 2. Geophysical Pursuit)
- 4:55 PM.....**Seeing through the Noise: Onshore Subsalt Updates via FWI-Derived-Reflectivity-Driven Reflection Waveform Inversion** | A. Kovacs<sup>1</sup>, M. Warner<sup>2</sup>, N. Shah<sup>1</sup>\*, C. Mavropoulos<sup>1</sup>, T. Nangoo<sup>1</sup>, C. Miller<sup>3</sup> (1. S-Cube; 2. Imperial College London; 3. Juneau Exploration)

### GEFE 3 Virtual Geology Field Trips and Training

Session Chairs: Peter Flaig and Dolores van der Kolk

Location: 372B

- 3:40 PM.....**Virtual field trips of the past, present and future** | J. H. Pugsley<sup>1</sup>, J. Howell<sup>1</sup>\*, N. Naumann<sup>2</sup>, S. Buckley<sup>2</sup> (1. University of Aberdeen; 2. Fonix Geoscience)
- 4:05 PM.....**Complementing Field-based Geoscience: Virtual Field Training with Digital Outcrop Models** | B. Burnham\*, D. Hodgetts (VRGeoscience Limited)
- 4:30 PM.....**Boots on the Rocks: A field trip archive of Sevier and Laramide fault and fold outcrops in the western United States** | R. W. Clayton\* (BYU-Idaho)
- 4:55 PM.....**Digital Outcrop Models of the Inyan Kara Group, Black Hills: Integrating Physical and Virtual Field Education for Subsurface Resource Management** | R. Beaubouef<sup>1</sup>\*, C. Oswalt<sup>2</sup>, B. Burnham<sup>3</sup>, D. Hodgetts<sup>3</sup> (1. RTB Geoscience; 2. Geology Field School; 3. VRGeoscience Limited)

### LCS 3 Storage Characterization and Modeling

Session Chairs: Hongmei Li and Haider Rizvi

Location: 371A

- 3:40 PM.....**Modelling CO2 sequestration at high resolution and regional scale: Cenozoic of the North Sea** | R. Jonk\*, S. Kelly, m. brettie, N. Price (University of Aberdeen)
- 4:05 PM.....**Experimental modeling and simulation of a composite confinement system to quantify uncertainty and risk in CO2 sequestration projects: Gulf Coast case history** | D. R. Hoffman<sup>1</sup>\*, A. Bump<sup>1</sup>, D. L. Carr<sup>2</sup>, C. Uroza<sup>2</sup>, G. Chavez<sup>3</sup> (1. Bureau of Economic Geology, University of Texas at Austin; 2. University of Texas at Austin; 3. Tecpetrol Colombia)
- 4:30 PM.....**From Gas Flaring to Reserves: Salado Salt-Cavern Storage Potential and Uncertainty for Carbon Management in the U.S. Permian Basin** | L. Ruiz Maraggi\*, L. Ko, E. Rodriguez Calzado, L. G. Moscardelli (Bureau of Economic Geology, Jackson School of Geosciences, The University of Texas at Austin)
- 4:55 PM.....**Hydrogeological assessment of CO2 containment assurance and wellbore integrity at a Gulf Coast storage site** | M. Haddad<sup>1</sup>\*, R. Ramadhan<sup>2</sup>, S. Hosseini<sup>1</sup> (1. Bureau of Economic Geology; 2. Department of Earth and Planetary Sciences)

### MME 2 Modeling and Data Processing

Session Chairs: Daisy Ning and Xiaolong Wei

Location: 361A

- 3:40 PM.....**Inversion of multicomponent 3D moving-loop TEM data** | A. Mohand-Said<sup>2</sup>, G. Marquis<sup>1</sup>\*, J. Girard<sup>1</sup>, S. Dempsey<sup>3</sup>, G. Harrison<sup>3</sup> (1. University of Strasbourg; 2. CNRS; 3. Orano Canada Inc.)
- 4:05 PM.....**Understanding the geologic controls and geophysical signatures of REE deposits at Mountain Pass through 3D implicit structural modeling and geophysical inversions** | J. Hampton, J. Sun\* (University of Houston)



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## Wednesday, 19 August

4:30 PM.....**Testing geological hypotheses using deep generative models: an example in Limerick Basin, Ireland** | P. Chakraborti<sup>1</sup>, J. Sun<sup>2\*</sup>, A. Melo<sup>1</sup> (1. University College Dublin; 2. University of Houston)

4:55 PM.....**Three-dimensional modeling and inversion of MobileMT data** | R. Mackie\*, W. Soyer (Viridien)

### RCM 3 Dynamic Reservoir Characterization

*Session Chairs: Brian Nicklen and Nordine Sabaou*

**Location: 372C**

3:40 PM.....**Multi-shape Bundle of Tubes Model integrated with Arc Menisci for Capillary Pressure and Throat Size Distribution Inversion** | H. Yoon<sup>1\*</sup>, M. Giakoumi<sup>2</sup>, D. DiCarlo<sup>2</sup>, M. Prodanović<sup>2</sup>, H. Jeong<sup>1</sup> (1. Seoul National University; 2. Hildebrand Department of Petroleum and Geosystems Engineering, The University of Texas at Austin)

4:05 PM.....**Spatiotemporal Shapley values for decomposition of waterflooding operating parameter influences on reservoir dynamics** | S. Choi<sup>1\*</sup>, J. Hernandez-Mejia<sup>2</sup>, H. Jo<sup>3</sup>, M. Pyrcz<sup>1</sup> (1. The University of Texas at Austin; 2. Pacific Northwest National Laboratory; 3. Inha University)

4:30 PM.....**Integrating production dynamics with seismic attributes for constrained reservoir geobody delineation** | J. Yang\*, X. Huang (Southwest Petroleum University)

4:55 PM.....**Solving reservoir complexities & understanding reservoir dynamics by developing forward stratigraphic models blended with machine learning** | A. Ahmad\*, S. Zulficar (SLB)

### SMT 3 Numerical Methods, Wave Propagation and Wave Phenomena 2

*Session Chairs: Sizhuang Deng and Fuchun Gao*

**Location: 362A**

3:40 PM.....**A rotated staggered grid fast sweeping method for efficient and accurate traveltime calculation** | J. Wang<sup>2\*</sup>, Q. Li<sup>2</sup>, J. Zhang<sup>1</sup>, H. Liu<sup>2</sup>, L. Fu<sup>2</sup> (1. Ocean University of China; 2. China University of Petroleum (East China))

4:05 PM.....**Memory-Efficient 3D Acoustic Wave Propagation via Tensor-Train Leapfrog Schemes** | D. Liu<sup>2\*</sup>, M. D. Sacchi<sup>1</sup>, X. Wang<sup>2</sup>, W. Chen<sup>2</sup> (1. University of Alberta; 2. Xi'an Jiaotong University)

4:30 PM.....**Automation-assisted Identification of Optimal Frequencies for Spectral Decomposition Using Sparse Object Picks and 2D Gaussian Clustering** | N. Daynac, D. Henaux, L. Souche\*, H. Abdallah, M. Papin, Q. Corlay (Eliis)

4:55 PM.....**Quantum Circuit and Tensor Network Implementation of the 2D Acoustic Wave Equation** | T. Nemeth<sup>1\*</sup>, G. Vattay<sup>2</sup> (1. WaveRun; 2. Eotvos Lorand University)

### SP 8 Least-Squares Imaging and Kirchhoff

*Session Chairs: Min Wang and Olga Zdraveva*

**Location: 362B**

3:40 PM.....**Least-squares wave-equation traveltime Kirchhoff** | H. Jin\*, V. Bashkardin, M. Davydenko, S. Luo, J. Etgen, D. Kumar, J. Zhang (bp)

4:05 PM.....**PENet: Implicit point spread function deconvolution via position encoding to enhance 3D migration images resolution** | C. Liu\*, Z. Jia, K. Ma, H. Fu (Tsinghua University)

4:30 PM.....**Target-oriented least-squares reverse-time migration driven by Rayleigh-Marchenko focusing for OBN data** | F. Li\*, J. Cheng (State Key Laboratory of Marine Geology, Tongji University)

4:55 PM.....**A fast and effective image-domain Kirchhoff least-squares migration for visco-acoustic media** | W. Zhang<sup>2\*</sup>, W. Mu<sup>2</sup>, H. Zhou<sup>1</sup>, Z. Zhou<sup>2</sup>, C. Wang<sup>2</sup>, J. Zhang<sup>2</sup> (1. China University of Petroleum (Beijing); 2. BGP, CNPC)

### SS 24 Discovery Thinking: Analogs of Perseverance 2

*Session Chairs: Charles Sternbach and Mike Forrest*

**Location: 351A**

3:40 PM.....**Highlander: Confirmation of a Giant Gas Field in South Louisiana** | K. McMichael (Claymore Oil & Gas LP)

4:30 PM.....**Missed it by That Much: A Northern Gulf of Mexico - America Look at Near Misses that Became Discoveries and the Impact for Future Exploration** | E. Zimmermann\* (LLOG Exploration)

### SS 25 Geothermal Resource Exploration and Characterization

*Session Chairs: Paul Schwering and Mike Wilt*

**Location: 360A**

3:40 PM.....**From prospect to reservoir: the role of geophysics in conventional geothermal development** | D. W. Feucht<sup>1\*</sup>, W. B. Cumming<sup>2</sup> (1. Ormat Technologies Inc.; 2. Cumming Geoscience)

4:05 PM.....**Innovation at Utah FORGE: Geophysical methods for characterizing and monitoring Enhanced Geothermal Systems** | K. S. McLin\* (University of Utah)

4:30 PM.....**Geologic interpretations of geophysical inversions at an enhanced geothermal system in the Milford Valley, Utah** | G. Matson\* (Fervo Energy)

4:55 PM.....**Stress Evolution on Fractures Revealed by Microseismic Source Characterization and Moment Tensor Analysis in Enhanced Geothermal Systems** | N. Nakata<sup>1\*</sup>, H. Chang<sup>2</sup>, A. Nayak<sup>1</sup>, A. Titov<sup>3</sup>, S. Dadi<sup>3</sup> (1. Lawrence Berkeley National Laboratory; 2. Massachusetts Institute of Technology; 3. Fervo Energy)

## Thursday, 20 August

### AAS 5 Anisotropy

Session Chairs: Heloise Lynn and Amit Padhi

Location: 371B

- 8:00 AM.....**Depth Uncertainty from Flatness (DUFF): A practical approach to seismic depth uncertainty** | E. Kazlauskas\* (BP)
- 8:25 AM.....**Minimum horizontal principal stress prediction approach research based on anisotropy theory of shale gas reservoir** | B. Du\*, J. Gao, D. Chang, L. Wang, H. Li (Research Institute of Petroleum Exploration & Development-Northwest (NWGI), PetroChina)
- 8:50 AM.....**AVA modelling with VTI Zoeppritz and anisotropic Q** | S. Leaney<sup>1</sup>\*, C. Chapman<sup>2</sup>, C. M. Sayers<sup>3</sup> (1. Qeye; 2. Cambridge University; 3. University of Houston)
- 9:15 AM.....**A new triclinic reflection coefficient algorithm coupled to rock physics: applications to oil and geothermal exploration** | G. Papageorgiou<sup>1</sup>\*, M. Chapman<sup>2</sup>, H. Lynn<sup>3</sup>, S. Cook<sup>4</sup> (1. Mantis Geophysics; 2. University of Edinburgh; 3. Lynn; 4. Tricon)

### AFR 2 Benefits of Integrating Relevant Data and it's Impact in Frontier Exploration

Session Chairs: William Dickson and Chisom Onubogu

Location: 361A

- 8:00 AM.....**KEYNOTE: Revealing Morocco's Attractive Hydrocarbon Exploration Potential** | S. Lahsini<sup>1</sup>, K. Atika<sup>2</sup>\* (1. ONHYM; 2. ONHYM (Non-Author))
- 8:25 AM.....**Beyond Namibia: Unlocking large stratigraphic traps and deep-water turbidite plays in the underexplored South African Orange basin** | A. Tassy\*, S. Maraj, V. delgorgue, A. Chaboureau, P. Thiry-Bastien, L. Salles, V. Mirande-Rey, A. Poutier, K. Da Benta, J. Bourget, F. Pelletier, M. Allain (TotalEnergies)
- 8:50 AM.....**Predicting Shelf Edge Carbonates and Deep Water Clastics Along the Equatorial Margin: Insights from Revised Cretaceous GDEs** | C. Bradley, C. Gravestock, J. Smith\* (Halliburton)
- 9:15 AM.....**Improving Frontier Exploration in Equatorial Guinea – How reprocessed data is renewing exploration insights on Oceanic Crust** | M. J. Powney<sup>1</sup>\*, J. Sherriff<sup>2</sup>, S. Doyle<sup>2</sup> (1. Geox MCG; 2. DUG)

### DAS 1 3D Vertical Seismic Profiling Case Studies

Session Chairs: Ezzedein Alfataige and Julia Correa

Location: 360B

- 8:00 AM.....**DAS 3DVSP in the Caspian Sea: Noise characterization and high-fidelity imaging from a production well** | A. Sayed<sup>1</sup>\*, K. Ramani<sup>1</sup>, Y. Luo<sup>1</sup>, F. Twynam<sup>1</sup>, M. Clementi<sup>1</sup>, R. Bachrach<sup>1</sup>, O. Thompson<sup>1</sup>, A. Wisden<sup>1</sup>, R. Rzayev<sup>2</sup>, N. Masmoudi<sup>2</sup> (1. SLB; 2. BP)
- 8:25 AM.....**Seeing Beyond the Wellbore: Unlocking Reservoir Insight with 3D DAS VSP Imaging in Atlantis Field** | Y. Feng\* (bp)

- 8:50 AM.....**4D DAS monitoring in producing wells with gas lift in deepwater reservoirs** | G. Machado<sup>1</sup>\*, D. Kiyashchenko<sup>1</sup>, K. Godfrey<sup>1</sup>, D. Bright<sup>1</sup>, P. Nurafza<sup>1</sup>, M. Tatanova<sup>1</sup>, S. Grandi<sup>1</sup>, W. Zhang<sup>1</sup>, A. Zotova<sup>2</sup>, F. Twynam<sup>2</sup>, P. Bennett<sup>2</sup>, A. Y. Sayed<sup>2</sup>, R. Bachrach<sup>2</sup> (1. Shell; 2. SLB)
- 9:15 AM.....**Joint acquisition of 3D DAS-VSP and surface seismic data and its application** | G. Yu<sup>1</sup>\*, Y. Chen<sup>2</sup>, X. Li<sup>1</sup>, J. Huang<sup>2</sup>, X. Zhang<sup>2</sup>, W. Tian<sup>2</sup>, K. Du<sup>2</sup>, J. Wu<sup>2</sup> (1. BGP Inc; 2. Optical Science and Technology (Chengdu) Ltd)

### DMLA 12 Agentic Artificial Intelligence and Foundation Models

Session Chairs: Oyedoyin Pelemo-Daniels and Altay Sansal

Location: 362A

- 8:00 AM.....**Distributed training of 3D seismic foundation models at scale** | M. Alwani<sup>1</sup>\*, H. An<sup>1</sup>, A. Lapastora<sup>1</sup>, P. Ramaswamy<sup>1</sup>, B. Liu<sup>1</sup>, B. G. Lasscock<sup>2</sup>, A. Valenciano<sup>2</sup>, A. Sansal<sup>2</sup>, S. Namasivayam<sup>2</sup>, R. Thekkanal<sup>1</sup>, J. Kramer<sup>1</sup>, A. Ramanathan<sup>1</sup> (1. Amazon Web Services; 2. TGS)
- 8:25 AM.....**JUDI Agent: a scientific coding agent for JUDI workflows in wave-equation imaging** | H. Li\*, A. Gahlot, F. J. Herrmann (Georgia Institute of Technology)
- 8:50 AM.....**Agentic AI for subsurface intelligence: automated SEG-Y to MDIO migration at scale** | L. Chen<sup>2</sup>\*, B. G. Lasscock<sup>1</sup>, C. Liu<sup>2</sup>, S. Gunturu<sup>2</sup>, S. Martin<sup>2</sup>, B. Michell<sup>1</sup>, A. Datta<sup>2</sup>, V. Ravipati<sup>2</sup> (1. TGS; 2. AWS Generative AI Innovation Center)
- 9:15 AM.....**An Event-Driven Multi-Agent Framework for Automated Geoscientific Interpretation** | M. Nasim<sup>1</sup>\*, P. N. Roy<sup>1</sup>, U. Waheed<sup>2</sup> (1. Indian Institute of Technology, Kharagpur; 2. King Fahd University of Petroleum and Minerals)

### DMLA 13 Seismic Interpretation 1

Session Chairs: Jacob Jackson and Jie Qi

Location: 372A

- 8:00 AM.....**Gradient-based metrics for label-free model selection in seismic fault segmentation** | S. Mithani\*, M. Prabhushankar, G. AlRegib (Georgia Institute of Technology)
- 8:25 AM.....**Low-order fault detection based on sample-optimized deep learning method** | S. Liang\*, B. Zhu, R. Gao, L. Yang, J. Zhao, H. Wu (Sinopec Geophysical Research Institute)
- 8:50 AM.....**Advanced seismic horizon tracking via linear-enhanced deep learning** | Y. Qi\*, G. Chen (Zhejiang University)
- 9:15 AM.....**DeepStratNet: A Regression Based Approach to Seismic Horizon Estimation with Uncertainty Quantification** | A. Ahmad<sup>1</sup>\*, M. A. Malik<sup>2</sup>, H. Bedle<sup>1</sup>, A. Mustafa<sup>2</sup> (1. University of Oklahoma; 2. Information Technology University)

### FWI 11 Case Studies from Europe and Asia

Session Chairs: John Brittan and Sizhuang Deng

Location: 351A

- 8:00 AM.....**Acoustic and elastic FWI-derived reflectivity with narrow-azimuth towed-streamer data** | W. Kang\*, A. Sazykin, R. Dixit, A. Waluyo, S. A. Ajiboye, M. Kalita, A. Cooke, A. Alemam, M. Salheen, M. Pantoja, X. Cheng, D. Vigh (SLB)





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## Thursday, 20 August

- 8:25 AM.....**Imaging through mega-gas clouds with visco-elastic FWI, offshore Malaysia and Brunei** | Y. Chen<sup>1\*</sup>, Z. Sun<sup>1</sup>, P. Deng<sup>1</sup>, K. Teng<sup>1</sup>, L. Chee-Khiong<sup>2</sup>, C. Lojikim<sup>3</sup>, P. Sii<sup>3</sup>, G. Balakrishnan<sup>2</sup> (1. Viridien; 2. Sarawak Shell Berhad; 3. Sabah Shell Petroleum Company Limited)
- 8:50 AM.....**Acoustic RTM, single-parameter and multi-parameter viscoelastic FWI: comparing reflectivity imaging approaches on North Sea OBN data** | L. Zhang<sup>\*</sup>, E. Lenskaya, A. Wisden, Z. Feng, A. Cooke (SLB)
- 9:15 AM.....**Multi Parameter Elastic FWI for Reliable Depth Imaging and Seismic Attribute Analysis** | Ø. Korsmo<sup>1</sup>, M. Zuberi<sup>1</sup>, V. Zhelanov<sup>1</sup>, K. Helgebostad<sup>1</sup>, T. Kultom Karlsen<sup>1</sup>, J. Oukili<sup>1</sup>, E. Frugier<sup>2\*</sup> (1. TGS; 2. TGS (Non-Author))

### INT 5 Interpretation Methods

Session Chairs: Dan Fernandez and Haitao Ren

**Location: 372B**

- 8:00 AM.....**Accelerated high-resolution local slope estimation based on automatic differentiation** | C. Li<sup>1\*</sup>, S. Fomel<sup>1</sup>, M. Zhang<sup>2</sup>, Y. Chen<sup>1</sup> (1. The University of Texas at Austin; 2. China University of Petroleum - Beijing at Karamay)
- 8:25 AM.....**From velocity to geology: geologic explanations of anomalous velocity from eFWI** | C. Westbrook<sup>\*</sup> (TGS)
- 8:50 AM.....**Amplitude Conformance Evaluation** | J. Zhang<sup>\*</sup>, S. Luo, H. Jin, G. Xia (bp)
- 9:15 AM.....**Improved regional geological understanding using a deep learning algorithm to project 2D to 3D data, offshore Otway basin, Australia** | J. Zhang<sup>\*</sup>, C. Tu, F. Xavier De Melo, D. Barlass, C. Li, T. Zhao (SLB)

### MECA 1 Seismic Insights Across Regional Basins

Session Chairs: Hesham Moubarak and Susan Nash

**Location: 370B**

- 8:00 AM.....**Fluid or facies? Integrated seismic inversion and rock physics evaluation of an amplitude-conformable rollover anticline** | S. Dabeer<sup>1</sup>, R. Leite<sup>1</sup>, D. Shaukry<sup>1</sup>, O. Noemi<sup>1</sup>, H. Walid K<sup>1</sup>, A. Ghamdi<sup>2\*</sup> (1. Saudi Aramco; 2. Saudi Aramco (Non-Author))
- 8:25 AM.....**Integrated Seismic and Electrical Resistivity Imaging to Characterize Groundwater-Wetland Interactions in Hyper-Arid Environments: A Case Study of Asfar Lake, Saudi Arabia** | K. González-Valdez, S. Hanafy<sup>\*</sup>, B. Tawabini (KFUPM)
- 8:50 AM.....**From uncertainty to confidence: derisking field development in the United Arab Emirates using ultrasensitive hydrocarbon mapping: a Rub' al Khali Basin case study** | R. Schrynemeeckers<sup>\*</sup> (Amplified Geochemical Imaging LLC)
- 9:15 AM.....**A Review of the Infra-Cambrian of the Arabian Plate – Extending Opportunity into New Geography** | C. Gravestock<sup>\*</sup>, R. James, M. Simmons (Halliburton)

### NS 2 Electrical and Electromagnetic Methods

Session Chairs: Patricia De Lugao and Christine Downs

**Location: 361B**

- 8:00 AM.....**High-resolution geophysical scanning of shallow fractured carbonate reservoirs** | S. Al Nasser<sup>\*</sup>, A. AlDawood (Saudi Aramco)
- 8:25 AM.....**Multi-antenna GPR Full-Waveform Inversion in shallow sediments** | G. Roncoroni<sup>1\*</sup>, P. Koyan<sup>1</sup>, I. Deiana<sup>2</sup>, J. Troncke<sup>1</sup> (1. University of Potsdam; 2. Stanford University)
- 8:50 AM.....**Multi-scale 3D geoelectrical imaging of the San Gregorio Magno Basin, southern Italy: from basin architecture to high resolution fault mapping** | N. Lucci<sup>1\*</sup>, M. Zambrano<sup>1</sup>, P. Bruno<sup>2</sup>, T. Volatili<sup>1</sup>, S. Mazzoli<sup>1</sup>, M. Pedini<sup>1</sup>, A. Humberto<sup>3</sup>, J. Eriza<sup>3</sup>, P. Marincioni<sup>1</sup>, M. Matarozzi<sup>2</sup>, Y. Matheus<sup>1</sup>, S. Ramos<sup>4</sup>, G. Ferrara<sup>2</sup> (1. UNICAM; 2. UNINA; 3. Universidad Central de Venezuela; 4. Universidad Simón Bolívar)
- 9:15 AM.....**Linking TDEM Decay Features to SIP Phase Peak Observations in Polarizable Media** | D. R. Glaser<sup>1\*</sup>, F. Shubitidze<sup>3</sup>, B. E. Barrowes<sup>3</sup>, L. Slater<sup>2</sup> (1. USACE ERDC; 2. Rutgers University Newark; 3. Dartmouth College)

### SILIC 2 Integrated Perspectives on Deepwater Stratigraphy and Channelized Systems

Session Chairs: Neal Auchter and Stan Stanbrook

**Location: 372C**

- 8:00 AM.....**Temporal Controls of Carbonate Platform Morphology on Permian Deep Water Siliciclastic Sediment Routing Systems, Southern Midland Basin, TX, USA** | A. Eljalaf<sup>\*</sup>, R. Holman, A. Bonilla-Rodriguez, C. Harman (Ovintiv)
- 8:25 AM.....**Submarine Channel Reoccupation in Mobile Shale Basins, Orinoco Delta Offshore Trinidad and Tobago** | J. Covault<sup>\*</sup>, J. I. Soto, D. Dunlap (University of Texas at Austin)
- 8:50 AM.....**Linking modern day deepwater depositional system geometry to halokinetic and minibasin tectonostratigraphic succession geometries in the Gulf Basin** | D. Lankford-Bravo<sup>\*</sup>, S. Giles (N/A)
- 9:15 AM.....**From Downstream to Upstream: Retrogressive Knickpoint Erosion as a Driver of Submarine Channel Evolution, Rio Grande Fan, Gulf of Mexico** | J. Covault<sup>\*</sup>, Z. Sylvester, D. Dunlap (The University of Texas at Austin)

### SP 9 Emerging Technologies: Generative Artificial Intelligence and Learning Workflows

Session Chairs: Nizar Chemingui and Rongrong Lu

**Location: 362B**

- 8:00 AM.....**Diffusion Probabilistic Model-Based Recovery of Gas-Cloud Attenuated Seismic Amplitudes** | F. Jiang<sup>\*</sup>, S. Singh, K. Osypov (Halliburton)
- 8:25 AM.....**A unified machine-learned seismic-processing framework using flow matching models** | H. Zhang<sup>\*</sup>, S. Cheng, T. Alkhalifah (KAUST)
- 8:50 AM.....**Neural network-based coarse 2D seismic data expansion method using VQ-VAE and GAN** | J. Lee<sup>\*</sup>, Y. Cho (Seoul National University)



## Thursday, 20 August

9:15 AM.....**Evolve-POCS: LLM-driven next-generation automated algorithm design for seismic data reconstruction** | Y. Xu<sup>1\*</sup>, S. Yu<sup>1</sup>, L. Yang<sup>2</sup> (1. Harbin Institute of Technology; 2. National University of Singapore)

### SS 26 SEPM Research Symposium: Critical Minerals and Geothermal Energy in Sedimentary Systems 1

*Session Chairs: Michael Braunscheidel and Kristie McLin*

**Location: 360A**

8:00 AM.....**A Recap and a Look Forward at the Geothermal Energy Elephant** | J. M. Holbrook\* (Texas Christian University)  
8:25 AM.....**Mapping Geothermal Favorability in the Great Basin: A Play Fairway Approach with Broader Implications for Exploration** | N. Wagoner\*, M. Coolbaugh, C. Lindsey, J. E. Faults (Great Basin Center for Geothermal Energy)  
8:50 AM.....**Deep Sedimentary Geothermal Systems: review of research, challenges, and future opportunities** | K. S. McLin\* (University of Utah)  
9:15 AM.....**Structural, geophysical, and rock-property constraints on sedimentary geothermal systems in the Black Rock Desert, west-central Utah** | A. Brettmann<sup>3\*</sup>, S. Gordon<sup>1</sup>, C. Hardwick<sup>2</sup>, C. Johnson<sup>1</sup>, L. Reeher<sup>2</sup>, E. Szymanski<sup>2</sup>, J. Tully<sup>1</sup> (1. University of Utah; 2. Utah Geological Survey; 3. University of Utah, Chevron New Energies)

### SS 27 Best of SEG Honorary Lecturer's

*Session Chairs: Boris Gurevich and Nimisha Vedanti*

**Location: 370A**

8:00 AM.....**Abnormal Fracture Propagation During Hydraulic Fracturing Captured by Distributed Strain Sensing Measurements** | G. Jin\* (Colorado School of Mines)  
8:25 AM.....**Beyond physics in geophysics** | J. P. Castagna (University of Houston)  
8:50 AM.....**Improving the Understanding of Land Seismic Noise: Implications for Acquisition Design, Land FWI, CCS, OBN, and Technical Geophysics** | C. Stork\* (Land Seismic Noise Specialists)  
9:15 AM.....**Rocking sustainability in Latin America: how my journey as an Honorary Lecturer supported SEG Student Chapters in a vibrant region** | M. A. Capello\* (Red Tree Consulting, LLC)

### USC 4 United States Gulf Deepwater

*Session Chairs: Drew Eddy and Scott Singleton*

**Location: 371A**

8:00 AM.....**Deep Primary Basin Architecture in the Louann Salt: Regional Polygonal Patterns Across the Northeastern Gulf of Mexico** | A. K. Tollestrup\* (Bureau of Economic Geology - University of Texas)  
8:25 AM.....**New insights into the structure of the north-central Gulf Basin derived from ultralong-offset sparse OBN and elastic FWI data** | M. Rowan<sup>1\*</sup>, K. Lyons<sup>2</sup>, N. Van Farowe<sup>2</sup>, H. Munoz<sup>2</sup>, E. Galvan<sup>2</sup>, J. Sutcliffe<sup>2</sup>, S. Das<sup>2</sup>, K. Glaccum<sup>2</sup>, M. El-Toukhy<sup>2</sup> (1. Rowan Consulting Inc.; 2. SLB)

8:50 AM.....**Structural timing assessment and low-velocity exotic blocks in the vicinity of Greater Kaskida Field, Keathley Canyon, Gulf of America (GoA)** | M. S. Arca\*, A. Afifi, K. Packer, E. Ekstrand (BP)

9:15 AM.....**Investigating the interaction between sedimentation and salt movement in a thick Paleogene primary basin: Implications for prospectivity assessment** | K. Packer\*, A. Afifi, P. Hargrove, E. Ekstrand, Q. Li (BP)

### AAS 6 Post Stack Seismic Techniques

*Session Chairs: Iga Pawelec and Son Phan*

**Location: 371B**

10:20 AM...**Post-stack Gas-bearing Prediction Based on Multi-wave** | H. Pan\*, D. Chang, J. Gao, J. Gui (Research Institute of Petroleum Exploration & Development-Northwest (NWGI), PetroChina)  
10:45 AM...**Distance quadrant attributes for fluid and facies discrimination in the Farewell Formation: a case study from the Kerry 3D survey** | R. Sahin\*, N. Choudhry, H. Bedle (The University of Oklahoma)  
11:10 AM...**Heterogeneity or Continuity? Testing Kriging Anisotropy in Model-Based Seismic Inversion** | A. Hajj Chehadeh<sup>1\*</sup>, S. Verma<sup>2</sup>, P. Jaiswal<sup>1</sup> (1. Oklahoma State University; 2. Axia Geo)  
11:35 AM...**Uncertainty-Aware Acoustic Impedance Inversion from Seismic and Well Data Using a Multi-Channel Variational Autoencoder** | F. Jiang\*, M. Gomes, K. Osypov (Halliburton)

### DAS 2 Surface and Multicomponent

*Session Chairs: Anna Titova and Upendra Tiwari*

**Location: 360B**

10:20 AM...**A new multicomponent optical borehole seismic tool: GeoLite field test results** | M. Verliac<sup>1\*</sup>, V. Lesnikov<sup>1</sup>, A. R. Huffman<sup>2</sup>, A. Berzanskis<sup>3</sup>, J. Haldorsen<sup>3</sup> (1. TotalEnergies; 2. HighPeak Energy Inc.; 3. MagiQ Technologies)  
10:45 AM...**Object detection using surface wave backscattering recorded by surface distributed acoustic sensing (S-DAS)** | Y. Luo\*, R. Bachrach (SLB)  
11:10 AM...**Surface 3C-DAS system development and field test for SDAS data acquisition** | G. Yu<sup>1\*</sup>, S. An<sup>2</sup>, Z. Ran<sup>2</sup>, F. Tan<sup>2</sup>, Y. Rao<sup>3</sup>, Q. Jing<sup>3</sup>, L. Meng<sup>3</sup>, J. Wang<sup>3</sup> (1. BGP Inc; 2. Optical Science and Technology (Chengdu) Ltd.; 3. University of Electronic Science and Technology of China)  
11:35 AM...**Passive seismic observations on a 65-km telecommunication DAS cable in shallow waters along the Texas Gulf Coast** | A. Bakulin<sup>1\*</sup>, A. Titova<sup>1</sup>, S. Fomel<sup>1</sup>, S. Mao<sup>1</sup>, I. Silvestrov<sup>2</sup> (1. University of Texas at Austin; 2. Independent Researcher)



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## Thursday, 20 August

### DMLA 14 Seismic Interpretation 2

*Session Chairs: Ben Lasscock and Nam Pham*

**Location: 372A**

- 10:20 AM... **The Impact of Pretraining Task and Data Domains on Transfer Learning for Seismic Facies Segmentation** | V. Leme Soares<sup>1</sup>, C. A. Astudillo<sup>1\*</sup>, A. A. Souza<sup>2</sup>, D. Miranda<sup>2</sup>, E. Borin<sup>1</sup> (1. University of Campinas; 2. Petrobras)
- 10:45 AM... **BALD-SAM: Disagreement-based active prompting in interactive segmentation** | P. Chowdhury\*, M. Prabhushankar, G. AlRegib (Georgia Institute of Technology)
- 11:10 AM... **Physics-Constrained Synthetic Forward Modeling for Automated Fluvial and Karst Facies Interpretation** | J. Qi\* (Geophysical Insights)
- 11:35 AM... **Iterative Sparse-Dense Prompting for Seismic Segmentation with Segment Anything Model** | A. Ahmad<sup>1\*</sup>, H. Bedle<sup>1</sup>, A. Mustafa<sup>2</sup> (1. University of Oklahoma; 2. Information Technology University)

### FWI 12 Elastic and Reservoir

*Session Chairs: Rongrong Lu and James McLeman*

**Location: 351A**

- 10:20 AM... **A case study on deriving rock properties at the reservoir using elastic multi-parameter FWI** | B. Bai\*, D. Vigh, X. Cheng, J. Xu (SLB)
- 10:45 AM... **Elastic FWI Imaging gathers for reservoir characterization beneath a gas cloud** | J. Cai<sup>1</sup>, V. Vandrasi<sup>2\*</sup>, Y. Huang<sup>2</sup>, S. Mothi<sup>2</sup>, I. Cordon<sup>1</sup>, D. Suarez Contreras<sup>3</sup>, F. R. Medina Torres<sup>1</sup>, A. S. Monclu<sup>1</sup> (1. Woodside Energy; 2. Viridien; 3. Pemex)
- 11:10 AM... **Multiparameter elastic FWI with GPU-accelerated spectral element method: scalability and 3D OBN field application** | B. Pereira Dias<sup>1</sup>, A. Tarayoun<sup>2</sup>, L. Métivier<sup>3\*</sup>, R. Brossier<sup>2</sup> (1. PETROBRAS; 2. Université Grenoble Alpes; 3. CNRS)
- 11:35 AM... **Estimating reservoir elastic properties beneath gas bodies with viscoelastic MP-FWI** | M. Kobylarski, J. Chaloner, K. Kraus, B. Chowdhury, M. A. Micu\*, T. Rayment (DUG Technology)

### INT 6 Structural Interpretation

*Session Chairs: Drew Eddy and Martin Kilsdonk*

**Location: 370A**

- 10:20 AM... **Revealing Hidden Structures – The Value of 4D eFWI Beyond Reservoir Monitoring** | Y. Feng\* (bp)
- 10:45 AM... **Seismic fault identification using a fault-dip searching gradient structure tensor** | S. Tang<sup>1\*</sup>, S. Li<sup>3</sup>, X. Huang<sup>2</sup> (1. Southwest petroleum university; 2. Southwest Petroleum University; 3. PetroChina Southwest Oil & Gas Field Company)
- 11:10 AM... **Layer-grid RGT optimization with sub-block finetuning** | Z. Li\*, M. Sarajaervi, F. Grady, K. Havelia, T. Zhao (SLB)

- 11:35 AM... **The influence of normal fault growth and displacement on reservoir architecture and heterogeneity: a case study from the Santos Basin** | E. C. Santos<sup>1\*</sup>, J. F. Villacrese<sup>2</sup>, E. J. Villamizar<sup>2</sup>, S. Aurelio<sup>3</sup>, M. V. Soares<sup>4</sup>, L. Bomfim<sup>4</sup>, M. Kuroda Avansi<sup>4</sup>, A. C. Vidal<sup>5</sup> (1. Eliis; 2. Faculty of Mechanical Engineering of the University of Campinas; 3. Eliis; 4. Center for Energy and Petroleum Studies of the University of Campinas; 5. Institute of Geosciences of the University of Campinas)

### INT 7 Integrated Workflows

*Session Chairs: Alex Martinez and Haitao Ren*

**Location: 372B**

- 10:20 AM... **Advancing integrated subsurface workflows through rapid technology deployment and digital enablement** | K. St Clair, K. Gurses\*, A. Santana, C. Harkin, D. Miller, C. Ramgattie, A. Hickman (bp)
- 10:45 AM... **Re-Imaging the Reservoir: A Fully Integrated Update Using OBN Seismic Upgrades, 4D Monitoring, and Analog Field Data** | V. Garcia\*, S. Donnelly (Hess Corporation)
- 11:10 AM... **Integrating geophysical modeling through the use of spectral decomposition products to constrain reservoir properties** | S. G. Woods<sup>1\*</sup>, H. Garcia<sup>2</sup> (1. ExxonMobil; 2. Geoteric)
- 11:35 AM... **Enhancing Field Development Planning and Reducing Target Uncertainty Through an Integrated Inversion Workflow in a Mature Field** | V. Mason<sup>1\*</sup>, C. Lopez<sup>3</sup>, J. Buckner<sup>1</sup>, C. Reiser<sup>2</sup>, A. Acevedo<sup>3</sup> (1. Sharp Reflections; 2. Sharp Reflections Ltd.; 3. Consorcio Shushufindi)

### IPS 2 Hydraulically-Induced Fracture Network Monitoring

*Session Chairs: Erkan Ay and Joel Le Calvez*

**Location: 361A**

- 10:20 AM... **Depth Dependence of Signal-to-Noise Ratio in Shallow Seismic Monitoring** | O. Kalinichenko\*, L. Eisner (Seismik s.r.o., Prague, Czech Republic)
- 10:45 AM... **Injection pressure of hydraulic fracturing can control the mechanisms and magnitudes of microseismicity** | N. Boitz, W. Tegtow, S. A. Shapiro\* (Freie Universität Berlin)
- 11:10 AM... **Induced seismic hazard assessment of West Texas due to oil/gas-related saltwater disposal through fully coupled poroelastic simulation and geodetic observations** | J. Hynes<sup>1\*</sup>, x. chen<sup>2</sup>, J. Tung<sup>1</sup> (1. Texas Tech University; 2. Texas A&M University)
- 11:35 AM... **Seismicity of massive saltwater disposals indicates that statistics of fault strength in crystalline basement depend on geology** | S. A. Shapiro\*, C. Langenbruch (Freie Universitaet Berlin)

### LAC 6 Brazil Equatorial Margin

Session Chairs: *Leonardo Molinari and Adriana Sola*

Location: 361B

- 10:20 AM... **Linking French Guyana discoveries to unlock Foz do Amazonas prospectivity using new 3D seismic surveys** | E. Leubon\*, A. Portella, R. Amorim Juncken, A. Gordon, M. Gatti, A. Lougon (Viridien)
- 10:45 AM... **Tectono-stratigraphic framework of Foz do Amazonas and implications of shale diapirism on deepwater sediments distribution** | A. Cosson<sup>1\*</sup>, S. Bull-Jansen<sup>2</sup>, J. Anjos<sup>1</sup> (1. Eliis; 2. Shearwater Geoservices)
- 11:10 AM... **Frontier Prospectivity of the Deepwater Pará–Maranhão Basin** | K. Reuber\*, P. Zalan, D. Unger, H. Houllevigue (TGS)
- 11:35 AM... **Crustal structure, tectonostratigraphy, and hydrocarbon potential of the deepwater Potiguar basin, Brazilian Equatorial margin** | J. Akinpelu\*, P. Mann (Conjugate Basins, Tectonics and Hydrocarbons Consortium)

### NS 3 Machine Learning and Artificial Intelligence Applications

Session Chairs: *Justin Birdwell and Sina Saneiyani*

Location: 370B

- 10:20 AM... **ChatGPR** | J. N. Ogunbo\*, S. Kim, J. Choi, S. H. Kim (Isung Co. LTD)
- 10:45 AM... **AI based dispersion curve picking: leveraging both phase shift and HRLRT** | Y. Zhang<sup>1\*</sup>, J. Ivanov<sup>1</sup>, M. Tamburro<sup>1</sup>, D. Borisov<sup>1</sup>, S. Abbasi<sup>1</sup>, R. D. Miller<sup>1</sup>, S. Sloan<sup>2</sup> (1. Kansas Geological Survey; 2. US Army Engineering Research and Development Center)
- 11:10 AM... **Physically constrained machine learning for subsurface resistivity forecasting under climate forcing** | W. Guo\*, H. Chen (University of Iowa)
- 11:35 AM... **Scalable surface wave inversion using physics-guided variational autoencoders** | S. Swaminadhan\*, A. Bakulin, S. Fomel, Y. Chen (The University of Texas at Austin)

### NSF 1 Geological Hydrogen

Session Chairs: *Rama Chandrudu Arasada and Franek Hasiuk*

Location: 372C

- 10:20 AM... **Mapping the geologic hydrogen and helium resource potentials of Texas** | E. Rodriguez Calzado, S. J. Saleh\*, C. Schuba (The University of Texas at Austin)
- 10:45 AM... **Prospectivity for Natural and Stimulated Geologic Hydrogen Production in Michigan** | F. Hasiuk<sup>1\*</sup>, A. Haagsma<sup>2</sup>, D. Conley<sup>1</sup>, B. Ellis<sup>3</sup> (1. Sandia National Labs; 2. Western Michigan University; 3. University of Michigan)
- 11:10 AM... **Efficient Borehole ERT Survey Design for Stimulated Geologic Hydrogen Monitoring** | N. Perkovich\*, M. Zhang, Y. Li (Colorado School of Mines)
- 11:35 AM... **Reservoir Dynamics from Space: A Computer Vision Framework for Extracting Geothermal Reservoir Kinematic Indicators from InSAR Time Series** | M. Reshadati Jobeni\* (Virginia Tech)

### RP 1 Fundamentals and New Insights

Session Chairs: *Tanima Dutta and Ronny Hofmann*

Location: 362A

- 10:20 AM... **New Rock Physics Model for Conventional Shales** | A. J. Mur<sup>1\*</sup>, L. Vernik<sup>2</sup> (1. Ikon Science; 2. University of Houston)
- 10:45 AM... **Estimating Pressure Modeling Parameters for Consolidated Reservoirs** | A. Jia\*, M. Sengupta, P. Singh, H. Ren (ExxonMobil Upstream Integrated Solution Company)
- 11:10 AM... **Microstructural interpretation of critical porosity with image-based constraints** | L. Louis<sup>1\*</sup>, Y. Han<sup>1</sup>, A. Alabbad<sup>2</sup>, W. Alkawai<sup>2</sup>, A. Perbawa<sup>2</sup>, Y. Alzayer<sup>2</sup> (1. Aramco Americas; 2. Saudi Aramco)
- 11:35 AM... **Sensitivity of undrained incompressibility to erroneous input** | L. Thomsen\* (University of Houston)

### SP 10 Bandwidth Enhancement, including Q Compensation

Session Chairs: *Markos Sourial and Sissy Theisen*

Location: 362B

- 10:20 AM... **Reducing phase variability in prestack seismic using circular-statistics based phase masking** | A. Rohatgi<sup>1\*</sup>, A. Bakulin<sup>1</sup>, A. Peterson<sup>2</sup>, S. Fomel<sup>1</sup> (1. University of Texas at Austin; 2. TGS)
- 10:45 AM... **Evaluating the Feasibility of Low Frequency Enhancement and Extrapolation Methods with Paired Field Airgun and TPS Reference Data** | I. Deiana<sup>1\*</sup>, H. Alswaidan<sup>1</sup>, G. Roncoroni<sup>2</sup>, S. Ronen<sup>1</sup> (1. Stanford University; 2. University of Potsdam)
- 11:10 AM... **Diagnosing seismic prestack processing efficiency and bandwidth through frequency-dependent phase stability** | A. Rohatgi\*, A. Bakulin, S. Fomel (University of Texas at Austin)
- 11:35 AM... **A self-adaptive inverse Q-filter** | A. M. Alshangiti\* (Saudi Aramco)

### SS 28 SEPM Research Symposium: Critical Minerals and Geothermal Energy in Sedimentary Systems 2

Session Chairs: *Kristie McLin and Erik Scott*

Location: 360A

- 10:20 AM... **Leveraging the Unconventional Rare earth element and Critical minerals (URC) method to assess prospectivity in coals in the Illinois, Black Warrior, and Uinta Piceance Basins** | J. Mulhern\*, C. Creason, M. Sharma, S. Pantaleone, B. Sullivan, K. Hoover, R. Yesenchak, Z. Jackson, C. White, E. Clinkscales, M. Sabbatino, J. Bauer (National Energy Technology Laboratory)
- 10:45 AM... **Rare earth element enrichment in coal-bearing sedimentary strata of Utah and Colorado: stratigraphic trends, spatial trends, and geochemical method recommendations** | H. Coe<sup>1\*</sup>, L. Birgenheier<sup>1</sup>, D. Fernandez<sup>1</sup>, P. Fausett<sup>1</sup>, E. Morris<sup>1</sup>, R. Gall<sup>2</sup>, M. Vanden Berg<sup>3</sup>, A. Giebel<sup>3</sup> (1. University of Utah; 2. Utah Geological Survey; 3. Colorado Geological Survey)
- 11:10 AM... **Critical minerals in sedimentary strata of Utah: Cretaceous Western Interior Basin and Permian Phosphoria Basin** | P. D. Fausett\* (University of Utah)



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## Thursday, 20 August

11:35 AM ...**Geospatial analysis and resource assessment of lithium in the Smackover geothermal fairway** | C. W. Neil<sup>1\*</sup>, S. Bhattacharya<sup>2</sup>, X. Huang<sup>1</sup>, B. Ahmmed<sup>1</sup>, M. Mehana<sup>1</sup>, A. Migdisov<sup>1</sup> (1. Los Alamos National Laboratory; 2. The University of Texas at Austin)

### USC 5 Permian and Unconventionals

*Session Chairs: Hemali Patel and Scott Singleton*

**Location: 371A**

10:20 AM ...**Drainage systems of Lower Ordovician Ellenburger paleokarst in Permian Basin: A seismic perspective** | H. Zeng\* (The University of Texas at Austin)

10:45 AM ...**Carbonate debris aprons and rafted blocks originating from the Central Basin Platform, Midland Basin, West Texas: examples and implications from the Dean and Lower Wolfcamp Formations** | M. P. Braunscheidel<sup>1\*</sup>, L. J. Wood<sup>1</sup>, K. Bryant<sup>1</sup>, e. deal<sup>1</sup>, R. Bianco<sup>2</sup> (1. Colorado School of Mines; 2. Fasken Oil and Ranch)

11:10 AM ...**Comprehensive subsurface characterization workflow for the Visean Shale in the Central Basin Platform, Texas: implications for drilling strategies** | D. M. Duran\*, C. Carvajal, K. X. Roy, E. Jones (Occidental Petroleum)

11:35 AM ...**The Upper Cube Play: A Significant Expansion on the Uinta Tight Oil Play** | R. Brinkerhoff\* (Consultant)

### AAS 7 Fracture Characterization

*Session Chairs: Fan Jiang and Youfang Liu*

**Location: 371B**

1:20 PM .....**Resolving natural and injection-induced fracture orientations in an enhanced geothermal system: shear-wave anisotropy at Utah FORGE** | J. Kim\*, J. Ajo-Franklin (Rice University)

1:45 PM .....**Higher mode amplitude variation with azimuth as a fracture fluid indicator: an Eastern European geothermal case study** | S. Cook<sup>1\*</sup>, G. Papageorgiou<sup>2</sup>, M. Chapman<sup>3</sup>, C. M. Sayers<sup>4</sup> (1. Tricon; 2. Mantis Geophysics; 3. University of Edinburgh; 4. University of Houston)

2:10 PM .....**A tale of two wells: azimuthal prestack P-P amplitudes drilled for a fractured reservoir target** | H. Lynn<sup>1\*</sup>, E. Jenner<sup>2</sup> (1. Lynn Inc.; 2. Land Seismic Noise Specialists)

2:35 PM .....**Fracture characterization by full waveform inversion** | M. Chapman<sup>1\*</sup>, G. Papageorgiou<sup>2</sup> (1. University of Edinburgh; 2. Mantis Geophysics)

### DAS 3 Microseismic and Machine Learning

*Session Chairs: Suresh Dande and Vladimir Kazei*

**Location: 360B**

1:20 PM .....**Monitoring microseismic activity using offshore DAS: an example from Australia's NW Shelf** | B. Gurevich<sup>1\*</sup>, O. Collet<sup>1</sup>, i. Almkhametov<sup>1</sup>, A. Gavrilov<sup>1</sup>, A. Duncan<sup>1</sup>, K. Tertyshnikov<sup>1</sup>, P. Shashkin<sup>1</sup>, R. Isaenkov<sup>1</sup>, H. Debens<sup>2</sup>, J. Deeks<sup>2</sup>, R. Pevzner<sup>1</sup> (1. Curtin University; 2. Woodside Energy Group Ltd.)

1:45 PM .....**Passive Geothermal Reservoir Imaging Using DFOS at Fervo Cape Station and Utah FORGE: Towards a Comprehensive Map of Basement Faulting** | Y. Ma<sup>1\*</sup>, J. Ajo-Franklin<sup>1</sup>, F. Yin<sup>1</sup>, X. Zhu<sup>1</sup>, A. Titov<sup>2</sup>, S. Chu<sup>2</sup>, R. Gibson<sup>2</sup>, S. Dadi<sup>2</sup> (1. Rice University; 2. Fervo Energy)

2:10 PM .....**Self-supervised DAS data lossy compression based on anisotropic multi-resolution hash encoding** | S. Wang\*, T. Alkhalifah (KAUST)

2:35 PM .....**Physics Aware Deep Learning for DAS Data Denoising** | Y. Cui<sup>1\*</sup>, D. Anikiev<sup>1</sup>, U. Waheed<sup>1</sup>, Y. Chen<sup>2</sup> (1. King Fahd University of Petroleum and Minerals; 2. The University of Texas at Austin)

### DMLA 15 Novel Concepts for Seismic Interpretation

*Session Chairs: Jinsong Chen and David Lubo-Robles*

**Location: 372A**

1:20 PM .....**The effectiveness of Federated Learning in seismic Interpretation** | C. Mari Noguera\* (Georgia Institute of Technology)

1:45 PM .....**Selecting optimal geophysical data for inference with machine learning models** | A. Baumstein<sup>1\*</sup>, J. Schmedes<sup>1</sup>, K. Guo<sup>2</sup>, E. Maxwell<sup>2</sup>, T. Rapstine<sup>3</sup>, D. Tang<sup>2</sup> (1. ExxonMobil Technology and Engineering Company; 2. ExxonMobil; 3. ExxonMobil Upstream Company)

2:10 PM .....**Information collapse in seismic SSL: a facies segmentation benchmark and mitigation study** | A. F. Musleh\*, M. Prabhushankar, G. AlRegib (Georgia Institute of Technology)

2:35 PM .....**Single-pass uncertainty estimation via latent information flow in seismic segmentation** | W. Stevens\*, M. Prabhushankar, G. AlRegib (Georgia Institute of Technology)

### FWI 13 Elastic Inversion Methods

*Session Chairs: Mingqiu Luo and Ludovic Métivier*

**Location: 351A**

1:20 PM .....**Strategies for multiparameter elastic full-waveform inversion using an approximate Hessian** | S. Luo\*, D. Kumar, J. Zhang, H. Jin, M. Vyas (bp)

1:45 PM .....**Multiparameter FWI: What Can Be Truly Unveiled from Pressure Data?** | G. Huang\*, J. Ramos-Martinez, D. Whitmore, C. Calderon (TGS)

2:10 PM .....**Spectral-Element-based Multiparameter Elastic Full Waveform Inversion of native-strain DAS data** | F. Perrone, I. Vasconcelos, L. Casasanta\* (Shearwater GeoServices)

2:35 PM .....**Imposing rock-physics constraints in full-waveform inversion via targeted null-space shuttling** | G. Matharu\*, J. McLeman (DUG Technology)

### INT 8 Petroleum Systems

*Session Chairs: Jose Miguel Gorosabel Araus and Ching Tu*

**Location: 372B**

1:20 PM .....**Stimulated isn't necessarily productive: reconciling microseismic response with effective drainage in the Delaware Basin, Texas** | I. H. Wang<sup>1\*</sup>, R. Stewart<sup>2</sup>, C. Ma<sup>3</sup> (1. Ecopetrol Permian; 2. University of Houston; 3. CPET)



## Thursday, 20 August

- 1:45 PM.....**The geology behind the pixel: Lessons from 50 years of seismic interpretation** | A. Fernandez<sup>1\*</sup>, C. Veltman<sup>1</sup>, H. Posamentier<sup>2</sup> (1. Eliis Inc.; 2. Posamentier Geosciences LLC)
- 2:10 PM.....**Calibration of Global Sea-Level Curves to Seismic Stratigraphy for Predicting Stratigraphic: Traps in the Eastern Indus Offshore Basin** | S. Ahmad<sup>\*</sup> (Oil and Gas Development Company Limited)
- 2:35 PM.....**Facies mapping in the 2nd Bone Spring interval in the Delaware Basin** | R. Bodziak<sup>\*</sup> (ExxonMobil)

### LAC 7 Mexico

*Session Chairs: Elvira Gomez and Ian Shaw*

**Location: 361A**

- 1:20 PM.....**Exploring the Sureste Basin: Impact and Results of Mexico's Offshore Licensing Rounds** | B. E. Serrano Suarez<sup>\*</sup>, A. Delgado, L. Noriega, M. Dietz (S&P Global)
- 1:45 PM.....**Leveraging seismic DHIs to predict hydrocarbon column height, distribution and compartmentalization: A Gulf of Mexico case study** | M. Yanez<sup>\*</sup>, M. Bonora (Repsol)
- 2:10 PM.....**Structural Controls on Sediment Fairways Distributions in the Pescadores Trough: An RGT-Based Integrated Seismic Stratigraphic Interpretation** | D. Lopez<sup>2\*</sup>, C. Veltman Zertuche<sup>1</sup> (1. Eliis; 2. Harbour Energy)
- 2:35 PM.....**Evolution of the Trion structure: regional deformation and local interpretation of fault families reveal new insights into the architecture of a world-class field** | D. Eddy<sup>\*</sup>, I. Cordon, S. Jess, F. R. Medina Torres, A. S. Monclu, G. L. Azcarraga, J. Blangy (Woodside Energy)

### LCS 4 Advances in Monitoring Technology

*Session Chairs: Erkan Ay and Giorgos Papageorgiou*

**Location: 371A**

- 1:20 PM.....**A generalized machine learning approach for modelling subsurface CO2 plume through time-lapse gravity data** | C. Messina<sup>\*</sup>, M. Milano, M. Fedi (University of Naples Federico II)
- 1:45 PM.....**Reducing CCS Monitoring Costs with Ultra-Broadband Tensor Strain Sensing: Pilot Results from the CAMI Field Research Station** | K. Walker<sup>1\*</sup>, R. Dash<sup>1</sup>, Z. Zhang<sup>1</sup>, L. Swafford<sup>1</sup>, X. Lou<sup>1</sup>, S. DeWolf<sup>2</sup>, R. Moak<sup>2</sup>, L. Murdoch<sup>2</sup>, M. Macquet<sup>3</sup>, J. Cooper<sup>3</sup> (1. Chevron Technical Center; 2. Tensora; 3. Carbon Management Canada)
- 2:10 PM.....**Active seismic monitoring at a carbon test storage facility from a sparse SADAR array network** | D. C. Quigley<sup>\*</sup>, K. D. Hutchenson, P. Nyffenegger, M. Dahl (Geospace Technologies)
- 2:35 PM.....**The future of subsurface monitoring: AEC's breakthroughs in CCS technology** | M. Ahmadian<sup>1</sup>, M. Haddad<sup>1\*</sup>, A. A. Wright<sup>4</sup>, A. Scherer<sup>2</sup>, M. Soukri<sup>3</sup> (1. Bureau of Economic Geology; 2. California Institute of Technology; 3. RTI International; 4. Sandia National Laboratories)

### NSF 2 Geothermal

*Session Chairs: Brad Cey and Dibyajyoti Tripathy*

**Location: 370B**

- 1:20 PM.....**Cerro Blanco energy potential and new 3D geothermal model derived from Magnetotellurics** | A. Curcio<sup>1\*</sup>, J. Curcio<sup>1</sup>, N. Dusso<sup>2</sup> (1. Proingeo SA; 2. Energy Advisor)
- 1:45 PM.....**Evolution of Subsurface Temperature Maps for Geothermal Exploration: Promises and Perils across Scales** | S. Bhattacharya<sup>\*</sup>, B. Young (The University of Texas at Austin)
- 2:10 PM.....**Learning Geothermal Prospectivity from Sparse Geoscience Data Using Neural Operators** | C. Chen<sup>\*</sup> (Shell)
- 2:35 PM.....**Fluid pressure surges in multi-stage hydraulic fracturing systems by dynamic stimulation** | Z. Zhang<sup>1\*</sup>, Y. Zheng<sup>1</sup>, L. Huang<sup>2</sup> (1. University of Houston; 2. LANL)

### RP 2 Lab Experiments

*Session Chairs: Laurent Louis and Kevin Wolf*

**Location: 362A**

- 1:20 PM.....**Laboratory Investigation into the Effects of Pressure and Methane Adsorption on the Elastic Parameters of Deep Coal** | J. Wang<sup>2\*</sup>, P. Ding<sup>1</sup>, J. Chen<sup>2</sup> (1. China University of Petroleum (Beijing); 2. CNOOC Research Institute Ltd.)
- 1:45 PM.....**Seismic responses of deep carbonate under high pressure and high temperature conditions** | X. Zhang<sup>2\*</sup>, C. Sheng<sup>2</sup>, C. Wu<sup>1</sup>, H. Yuan<sup>1</sup> (1. China University of Geosciences Beijing; 2. Research Institute of Petroleum Exploration & Development, PetroChina Company Limited)
- 2:10 PM.....**Anisotropic and dispersion signatures of lacustrine shale reservoir** | T. Long<sup>\*</sup>, D. Han, Y. Zheng (University of Houston)
- 2:35 PM.....**Analysis of fluid distribution in nanoporous media using ultrasonic and optical data** | B. Gurevich<sup>1\*</sup>, G. Y. Gor<sup>2</sup> (1. Curtin University; 2. New Jersey Institute of Technology)

### RUBD 1 Exploration Risk and Decision Frameworks

*Session Chairs: Katarina Jonke and Jane Lock*

**Location: 370A**

- 1:20 PM.....**Five emerging trends in upstream oil and gas business** | S. Nie<sup>\*</sup> (AAPG)
- 1:45 PM.....**WITHDRAWN: Study on the Specification for Play Evaluation of Oil and Gas Exploration Industry** | M. Li<sup>\*</sup>, C. Liu, X. Yan, L. Cai, G. Chen, Q. Chen, J. He (Petroleum Exploration and Production Research Institute, SINOPEC)
- 2:10 PM.....**Beyond the geologic success case: bridging technical uncertainty and business decisions** | J. Irvin<sup>\*</sup> (Rose Subsurface Assessment)
- 2:35 PM.....**WITHDRAWN: Composite Evaluation Model for Global Exploration Prospect Risking and Ranking and its Application in Portfolio Optimization** | Z. Li<sup>\*</sup>, Z. Yang (PetroChina)

### SP 11 Artificial Intelligence Denoising and Signal Enhancement

*Session Chairs: Milos Delic and Adam Searle*

**Location: 362B**



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## Thursday, 20 August

- 1:20 PM.....**Swell noise removal via blind-trace self-supervised learning** | M. Ravasi\*, I. Vasconcelos, K. Howard (Shearwater GeoServices)
- 1:45 PM.....**Signal enhancement for distributed acoustic sensing using a fast chirp-z Radon transform** | E. J. Zampieri\*, M. D. Sacchi (University of Alberta)
- 2:10 PM.....**RDDM-based microseismic denoising with multi-scale spectral information constraint** | L. Hua\*, B. Wang (Tongji University)
- 2:35 PM.....**Modeling and suppression of converted-wave artifacts in Eastern Mediterranean data** | D. Silva de Albuquerque<sup>1</sup>\*, G. Azevedo<sup>1</sup>, R. Pereira<sup>1</sup>, F. Rodrigues<sup>1</sup>, A. Khalil<sup>1</sup>, M. Aharchaoui<sup>2</sup>, M. Guillois<sup>2</sup> (1. Viridien; 2. ExxonMobil)

### SS 29 Critical Minerals Economy: Strategy, and Finance

*Session Chairs: Daniel Hollis and Marco Nieto*

**Location: 360A**

- 1:20 PM.....**From Subsurface Imaging to Science Diplomacy: The Strategic Role of National Geoscience Programs** | M. Cuvillier\* (Viridien)
- 1:35 PM.....**Geophysics for Impact: Building Mineral Inventories that Attract Capital** | E. King\* (Global Venture Consulting)
- 1:50 PM.....**Data processing and structuring; a critical step to leverage AI** | M. Dykstra\* (MinersAI)
- 2:05 PM.....**Nuclear fuel future analysis of Saudi Arabia: domestic uranium demand, local supply, and integrative aqua-mining as a strategic opportunity** | A. Aljuaid<sup>1</sup>\*, S. Landsberger<sup>2</sup>, D. Alessi<sup>2</sup>, F. Beach<sup>2</sup> (1. Aramco/UT Austin; 2. UT Austin)
- 2:20 PM.....**Panel Discussion**

### SS 30 Best of EAGE 2026

*Session Chairs: Sandeep Chandola and Martin Widmaier*

**Location: 361B**

- 1:20 PM.....**Integrating Regional Modelling and 4D Seismic for Predicting Pre-Production Fluid Contact Variation in Mature Basins** | S. Adamson (Aker BP ASA)
- 1:45 PM.....**Bleaching Fronts as Quantitative Flow Proxies for CO<sub>2</sub> Storage in Aeolian Red Beds** | S. Kelly (University of Aberdeen)
- 2:10 PM.....**Using Visco-Elastic Full-Waveform Inversion to See Beneath the Gas Cloud at the North Sea Ekofisk Field** | M. Oleszuk (Viridien)
- 2:35 PM.....**Provenance Relationships of Sandstone Intrusions and Their Depositional Parent Units** | W. Luzinski (University of Aberdeen)

### SS 31 Exploration Hot Spots: Technical and Commercial Challenges

*Session Chairs: Julie Bloxson and John Casiano*

**Location: 372C**

- 1:20 PM.....**KEYNOTE: Jeanne d' Arc Natural Gas Assessment** | J. Petrovic\* (Energy and Mines)
- 1:45 PM.....**Exploration's resurgence and the role of the Atlantic Margin** | R. Montgomery\* (Welligence Energy Analytics)

- 2:10 PM.....**Geologic and policy controls on the distribution of unleased offshore blocks in the northern Gulf of Mexico Basin** | M. Sweet<sup>1</sup>\*, T. Whiteaker<sup>1</sup>, R. A. Denne<sup>1</sup>, C. Poehl<sup>1</sup>, J. W. Snedden<sup>2</sup> (1. Institute for Geophysics, Jackson School of Geosciences, The University of Texas at Austin; 2. The University of Texas)
- 2:35 PM.....**Offshore Venezuela: Basin origins, exploration potential, and regulatory challenges** | J. Pindell<sup>1</sup>, M. Torres<sup>2</sup> (1. Tectonic Analysis Ltd.; 2. Plata Energy LLC)

### AAS 8 Amplitude Versus Offset Inversion

*Session Chairs: Samik Sil and Reza Torabi*

**Location: 371B**

- 3:10 PM.....**Structural guided prestack AVA inversion with a learned diffusion regularization** | C. Li\*, H. Tang (The University of Texas at Austin)
- 3:35 PM.....**Dual-Control Genetic Mechanism and Specialized Identification Method for Class IV AVO Reservoirs: Field Validation in Bohai Bay Basin** | X. Lu\*, S. Zhang, X. Guo, y. wu (CNOOC China Limited Tianjin)
- 4:00 PM.....**Evaluating inversion-based imaging products for AVO attributes from the Gulf of America** | D. Kumar\*, J. Zhang, S. Li, J. Siegel, S. Luo, C. Kumar, H. Jin, A. Lomas, D. Wang, K. Wolf, C. Purcell, D. Ni (bp)
- 4:25 PM.....**Structure-Aware Deep Learning for AVO Inversion** | S. Gao\*, S. Fomel, Y. Chen (University of Texas at Austin)

### DAS 4 Fracture Characterization

*Session Chairs: Ivan Lim Chen Ning and Xueling Song*

**Location: 360B**

- 3:10 PM.....**Multiple Time-Step Inversion of Discretized Hydraulic Fracture Aperture Distribution Using Multi-Well LF-DAS Constraints: Application to the HFTS-2 Field** | P. He\* (Colorado School of Mines)
- 3:35 PM.....**Characterizing Aseismic and Seismic Slip in Unconventional Reservoir Using Low-Frequency DAS and Geomechanical Modeling** | X. Zhu<sup>1</sup>\*, J. Correa<sup>2</sup>, G. Jin<sup>3</sup>, S. Glubokovskikh<sup>2</sup>, J. Ajo-Franklin<sup>1</sup>, Y. Ma<sup>4</sup>, Y. Guglielmi<sup>2</sup>, M. Cao<sup>2</sup>, R. Bohn<sup>5</sup>, E. Kerr<sup>5</sup> (1. Rice University; 2. Lawrence Berkeley National Laboratory; 3. Colorado School of Mines; 4. Rice University; 5. SM Energy)
- 4:00 PM.....**Multi-Class Identification of Hydraulic Fracture and Fault Slip Events from Low-Frequency DAS Strain Data Using Machine Learning** | J. Correa<sup>1</sup>\*, M. Lacour<sup>2</sup>, X. Zhu<sup>3</sup>, R. Nakata<sup>1</sup>, R. Bohn<sup>4</sup>, E. Kerr<sup>4</sup> (1. Lawrence Berkeley National Laboratory; 2. University of California Berkeley; 3. Rice University; 4. SM Energy)
- 4:25 PM.....**DAS microseismic interferometry reveals basement velocity and fault systems at Fervo Cape and Utah FORGE sites** | Y. Fu<sup>1</sup>\*, Y. Ma<sup>1</sup>, X. Zhu<sup>1</sup>, J. Ajo-Franklin<sup>1</sup>, A. Titov<sup>2</sup>, S. Chu<sup>2</sup>, R. Gibson<sup>2</sup>, S. Dadi<sup>2</sup> (1. Rice University; 2. Fervo Energy)

### DMLA 16 Next-Generation Artificial Intelligence Workflows for Well Logs and Reservoir Characterization

Session Chairs: Avinash Chandra and Lewis Li

Location: 372A

- 3:10 PM.....**Steerable digitization of complex raster well logs: an interpretable neural-graph framework with human-in-the-loop refinement** | M. Naveed, A. Shafiq, H. Shahid\* (LMKR)
- 3:35 PM.....**Reservoir Parameter Prediction Based on Semi-Supervised Regression with Pseudo-Labels** | C. Xu<sup>1\*</sup>, Z. Guo<sup>2</sup>, L. Li<sup>1</sup> (1. BGP, CNPC; 2. Jilin University)
- 4:00 PM.....**Impact of multi-scale feature fusion and multi-task learning on DCNN-based reservoir parameter prediction** | Q. Zhang\*, L. Li, Y. Gu, W. Xiong, Y. Chen, S. Li, J. Shan (BGP, CNPC)
- 4:25 PM.....**Adapting DINOv2 for well log reconstruction: Enhancing petrophysical interpretation with vision transformers** | D. Storey\*, H. Di, N. Pham, A. Sharma, A. Kalbekov (SLB)

### FWI 14 Deep Learning

Session Chairs: Oscar Perez Ramirez and Guangchi Xing

Location: 351A

- 3:10 PM.....**Learned regularizations for multiresolution hash encoding-based implicit full waveform inversion using well-constrained diffusion models** | L. WANG<sup>1</sup>, S. Wang<sup>2\*</sup>, F. Min<sup>1</sup>, T. Alkhalifah<sup>2</sup> (1. Southwest Petroleum University; 2. King Abdullah University of Science and Technology)
- 3:35 PM.....**Latent-Space Siamese Neural Network for Cycle-Skipping Mitigation in Full-Waveform Inversion: A Marine Field Data Case Study** | O. Saad\*, T. Alkhalifah (King Abdullah University of Science and Technology)
- 4:00 PM.....**Bayesian Joint Velocity and Impedance Inversion via Diffusion Models Conditioned on Common Im-age Gathers** | Y. Zeng\*, H. Erdinc, F. J. Herrmann (Georgia Institute of Technology)
- 4:25 PM.....**Post-FWI injection of learned priors using a flow matching model** | H. Zhang\*, T. Alkhalifah (King Abdullah University of Science and Technology)

### IPS 3 Induced Seismicity and Geothermal

Session Chairs: Troy Hawkes and Joel Le Calvez

Location: 362A

- 3:10 PM.....**Poroelastic stabilization of the Maacama Fault and Northern Rodgers Creek Fault induced by the Geysers geothermal production** | J. Tung<sup>1\*</sup>, M. Shirzaei<sup>2</sup>, A. Raman<sup>1</sup> (1. Texas Tech University; 2. Virginia Tech)
- 3:35 PM.....**Geothermal production-driven stress evolution and fault reactivation potential at the Geysers: Insights from decadal geodetic, seismic and numerical analysis** | A. Raman<sup>1\*</sup>, M. Shirzaei<sup>2</sup>, J. Tung<sup>1</sup> (1. Texas Tech University; 2. Virginia Tech)
- 4:00 PM.....**High-Resolution Imaging of Microseismic Clusters at the Fenton Hill Geothermal Site** | J. Woo\*, T. Chen (Los Alamos National Laboratory)
- 4:25 PM.....**Understanding the evolution of the EGS reservoir at the Utah FORGE with seismic velocity changes and induced seismicity** | E. Glück\*, K. Murphy Whidden, K. Pankow (University of Utah)

### LCS 5 Storage Case Studies

Session Chairs: Philipp Tesch and Carlos Uroza

Location: 371A

- 3:10 PM.....**Identifying additional CO2 storage capacity at Sleipner through seismic attribute-guided channel characterization** | T. O. Ude-Akpeh<sup>1\*</sup>, J. Diaz<sup>3</sup>, J. Park<sup>2</sup>, G. Lee<sup>2</sup>, J. Lee<sup>2</sup>, T. Shifugula<sup>3</sup>, C. Nuamah<sup>3</sup>, P. K. Eshun<sup>3</sup>, T. Adu-Azumah<sup>3</sup>, C. Onyeakusi<sup>1</sup>, S. Yeliseti<sup>3</sup>, J. Lee<sup>1</sup> (1. University of Texas Permian Basin; 2. Hanyang University; 3. Texas A&M University-Kingsville)
- 3:35 PM.....**Prospect-scale CO2 storage resource assessment: case study in offshore Texas, USA** | R. Afifi\*, T. Meckel, C. Uroza (University of Texas at Austin)
- 4:00 PM.....**Screening mafic rocks at the basin scale for CO2 storage potential: Example from the Paraná Basin, Brazil** | C. Lang, A. Uren, P. Helps, J. Jennings\*, M. A. Reynald (Halliburton)
- 4:25 PM.....**Reservoir quality vs. CO2 storage capacity in open aquifers: A case study from the Middle East** | M. Valderrama\*, M. Slinde, A. Ghamdi (Aramco)

### NSF 3 Geothermal and Lithium

Session Chairs: Rama Chandrudu Arasada and Nabajit Lahiri

Location: 370B

- 3:10 PM.....**Geothermal reservoir hydromechanics inferred from 4D InSAR deformation history matching in the Salton Trough, California** | J. Jiang\*, G. Shodunke, S. S. Bodunde (University of Oklahoma)
- 3:35 PM.....**Agentic AI framework for automated petrophysical quality control and validation: a Utah FORGE geothermal case study** | R. Ahmadov, R. Nagoor Gani\*, P. Muniraju (HDS)
- 4:00 PM.....**Lithium in the Pre-Salt Santos Basin: From Clayey Rocks to Produced Water** | C. W. Ramnani\*, M. K. de oliveira, J. C. Vazquez, A. M. Novaes, R. Escalfoni Junior, L. S. Chinellato junior, R. Pietzsch Amora, R. M. de Faria, D. Tommasini, N. d. Lima, R. A. Fontes, P. L. Florido, S. S. Neto (Petrobras)
- 4:25 PM.....**Unraveling Lithium Enrichment in the Smackover Formation: Geochemical Fingerprints and Mechanistic Insights from Northern Louisiana** | R. Kumar<sup>1\*</sup>, R. Colldeweih<sup>1</sup>, G. Neupane<sup>1</sup>, R. Smith<sup>2</sup>, T. McLing<sup>1</sup>, T. Atkinson<sup>1</sup>, E. Sonnenthal<sup>3</sup>, I. Gupta<sup>4</sup>, K. Maiti<sup>4</sup>, D. Schechter<sup>4</sup> (1. Idaho National Laboratory; 2. University of Idaho; 3. Lawrence Berkeley National Lab; 4. Louisiana State University)

### RCM 4 Seismic Inversion and Reservoir Prediction

Session Chairs: Paritosh Bhatnagar and Carla Carvajal

Location: 372B

- 3:10 PM.....**Seismic frequency anomaly extraction: Method and application** | S. Tai<sup>3\*</sup>, C. Puryear<sup>2</sup>, J. Castagna<sup>1</sup> (1. University of Houston; 2. Spectral Geosolutions; 3. Sinopec Geophysical Research Institute Co., Ltd)
- 3:35 PM.....**Estimating reservoir properties from elastic FWI volumes via rock-physics-constrained geostatistics** | Y. Zhu\* (Sinopec)





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## Thursday, 20 August

4:00 PM.....**Utilizing high-resolution seismic inversion for 3D reservoir property distribution: A case study in moderate quality carbonate reservoir** | S. Almalki\*, A. Zeiza, T. Kurniawan (Saudi Aramco)

4:25 PM.....**Resolving Ambiguity in Seismic-Based Water Saturation Prediction Using AVO Stability Analysis and Bayesian Lithofacies Inversion** | R. Sharma<sup>1</sup>, S. Chopra<sup>1\*</sup>, n. kumar<sup>2</sup>, M. Tobin<sup>3</sup> (1. SamiGeo; 2. Canacol Energy Ltd.; 3. CMG)

### RP 3 Integrated Applications

*Session Chairs: Arpita Bathija and Chris Purcell*

**Location: 361A**

3:10 PM.....**Convolutional synthetics with rock physics-based intrinsic attenuation and transmission effects** | G. Papageorgiou<sup>1\*</sup>, M. Chapman<sup>2</sup> (1. Mantis Geophysics; 2. University of Edinburgh)

3:35 PM.....**Bakken shale geomechanical characterization from joint PP-PS prestack inversion enabled by RAFT-SeisReg registration workflow: An application to the Big Sky multicomponent dataset** | S. Hoque\*, R. Zhang (University of Louisiana at Lafayette)

4:00 PM.....**Quantifying Fracture-Induced Anisotropy in Atapu Pre-Salt Carbonate: Integrated Rock Physics Modeling with Cross-Dipole and Image-Log Validation** | E. Petersohn\*, T. Mukerji (Stanford University)

4:25 PM.....**Variational inference for rock properties from seismic and wells** | K. Osyov\*, F. Jiang, M. Belonosov, M. Gomes, T. Dutta, S. Hu, B. Li, S. Singh (Halliburton)

### RUBD 2 Integrated Decisions in Field Development

*Session Chairs: Subhas Das and Chris Travis*

**Location: 370A**

3:10 PM.....**EOSIM: An Enhanced Operational Seismic Integration Framework for Risk and Cost Reduction in Upstream Decision-Making** | L. D. Romero Sanchez\* (Independent Researcher)

3:35 PM.....**Mitigating business risks through integrated 3D and 4D seismic: the Atlantis field journey** | G. Al Habsi\*, O. Egbue (BP America)

4:00 PM.....**Unlocking New Barrels Through Infrastructure-Led Exploration in Guyana** | E. Turner\*, S. Honig, R. Wachtman (ExxonMobil)

4:25 PM.....**Aligning exploration prospective resources with PRMS reserves and resources** | S. K. Tirado\* (Ryder Scott Company)

### SP 12 Near Surface, Statics and Shallow-Hazard Processing

*Session Chairs: Inma Dura-Gomez and Erik Neumann*

**Location: 362B**

3:10 PM.....**Unlocking shallow hazards imaging from deep-water production OBN: insights from a high-density 50x50 m node testbed** | I. Pawelec\*, C. Noll, A. Robertshaw, C. Kumar, G. Xia (bp)

3:35 PM.....**Does ocean bottom node only focus on deeper resolution? Reprocessing OBN data for shallow hazards imaging** | Y. Wang\*, A. Landin (bp)

4:00 PM.....**Fast and slow S-wave static corrections and their application in the GL area, Northeast China** | F. Feng\*, Z. Du, C. Hu, Y. He, Q. Gao, Z. Chen, J. Yang, B. Yu, X. Cai, Q. Ma, Y. Xiao (BGP, CNPC)

4:25 PM.....**Deep learning polarization filtering for near-surface wave separation in the frequency-slowness domain** | I. Sanchez\*, D. Trad (University of Calgary)



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# Poster Sessions

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Tuesday, 18 August

## AAS P1 Anisotropy

8:00 AM - 9:40 AM

Session Chairs: Ashish Kumar and Ilya Tsvankin

Location: Poster Location 7 (on the 3rd level)

- Station A: **Tilted-orthorhombic anisotropy sensibility on refraction tomography in long-offset OBN acquisition** | P. H. Alves\*, F. T. Costa, F. V. Capuzzo, M. Cetale (Fluminense Federal University)
- Station B: **Coherent-Stacking-Based Least-Squares Seismic imaging in the Anisotropic Media** | T. Shan<sup>1</sup>, J. Yang<sup>1</sup>, J. Huang<sup>1</sup>, W. Wang<sup>1</sup>, S. Qin<sup>1</sup>, K. Yu<sup>1</sup>, R. Bi<sup>2\*</sup> (1. China University of Petroleum (East China); 2. China University of Petroleum (East China) (Non-Author))
- Station C: **Azimuthal seismic inversion for two sets of orthogonal inclined fractures embedded in gas-bearing reservoirs** | B. Guo<sup>1\*</sup>, H. Chen<sup>1</sup>, B. Liu<sup>2</sup>, J. Gao<sup>2</sup> (1. Tongji University; 2. Research Institute of Petroleum Exploration & Development-Northwest (NWGI), PetroChina)
- Station D: **Analysis of the influence of pore-shape on seismic reflection coefficient** | H. Pan\*, D. Chang, J. Gao, J. Gui (Research Institute of Petroleum Exploration & Development-Northwest (NWGI), PetroChina)

## AFR P1 Insights Exploring Petroleum Systems in Underexplored Regions

8:00 AM - 9:40 AM

Session Chairs: David Blanchard and Chisom Onubogu

Location: Poster Location 4 (on the 3rd level)

- Station A: **Relinking Basin Geometry to Pre-existing Weak Zones: Case Study on Anza Basin, Kenya** | G. M. Mnyika\*, A. B. Katumwehe (Oklahoma State University)
- Station B: **Petroleum system evaluation and hydrocarbon prospectivity of the Sallum basin, northwestern Egypt** | M. Benyamin<sup>1</sup>, N. Abdel Gawad<sup>1</sup>, G. Saleh<sup>2</sup>, C. Leone<sup>3\*</sup> (1. Egypt Upstream Gateway; 2. SLB; 3. SLB (Non-Author))
- Station C: **Modelling tectonics and heat flow on complex margins: insights from East Africa** | D. Paton<sup>1\*</sup>, P. J. Markwick<sup>2</sup>, J. Naliboff<sup>3</sup> (1. Tectonknow; 2. Knowing Earth; 3. New Mexico Tech)
- Station D: **What are we missing? How improved understanding of an unconformity offshore Morocco could unlock deepwater source rocks on Oceanic Crust** | M. J. Powney\* (Geoex MCG)

## DMLA P1 Full-Waveform Inversion

8:00 AM - 9:40 AM

Session Chairs: Mert Kiraz and Joseph Stitt

Location: Poster Location 1 (on the 3rd level)

- Station A: **Improving full-waveform inversion convergence with machine-learning-interpolated data** | L. Peregrino de Faria\*, P. D. de Lima, J. M. Araujo, L. Dantas Machado (UFRN)
- Station B: **Differentiable and Learnable Numerical Framework for Full-Waveform Inversion** | W. Wu<sup>1\*</sup>, M. Yan<sup>2</sup>, L. Zhang<sup>1</sup>, W. Xu<sup>1</sup>, Z. Wang<sup>1</sup>, M. Guo<sup>1</sup> (1. BGP Inc., CNPC; 2. Renming University)

- Station C: **Neural Operators with Accurate Jacobian for High-Fidelity Image-Domain Seismic Inversion** | J. Park<sup>1\*</sup>, H. Erdinc<sup>1</sup>, G. Bruer<sup>1</sup>, R. Rex<sup>2</sup>, N. Chandramoorthy<sup>3</sup>, F. J. Herrmann<sup>1</sup> (1. Georgia Institute of Technology; 2. Terra AI; 3. University of Chicago)
- Station D: **SeiFT-TransInv: a feature tokenization transformer approach to deep learning-based acoustic FWI for CO2 storage monitoring** | S. Lee\*, T. Watanabe (Nagoya University)

## DMLA P2 Rock Physics and Reservoir Characterization

8:00 AM - 9:40 AM

Session Chairs: Eric Peavey and Casey Ruplinger

Location: Poster Location 2 (on the 3rd level)

- Station A: **GERM: Geometrically Estimated Rock Modeling and its application for multi-task Carbonate CT segmentation learning** | S. Wang<sup>1\*</sup>, Y. Xue<sup>2</sup>, L. Sun<sup>1</sup>, H. Wang<sup>1</sup>, D. Ma<sup>1</sup>, Q. Xu<sup>1</sup>, W. Wang<sup>1</sup> (1. China Oilfield Services Ltd.; 2. School of Artificial Intelligence and Big Data, Wuhan Business University)
- Station B: **Lessons learnt while industrializing unsupervised and semi-supervised Self-Organizing Maps: from topology learning to facies prediction** | R. Baillet<sup>1\*</sup>, S. Ben Brahim<sup>1</sup>, M. E. Véliz Zambrano<sup>1</sup>, N. Desgoutte<sup>1</sup>, A. Kolisnyk<sup>2</sup>, E. Perico<sup>2</sup>, V. F. Rodrigues<sup>2</sup>, G. Cardoso<sup>2</sup> (1. Beicip-Franlab; 2. Petrobras)
- Station C: **Heterogeneous Carbonate Reservoir Characterization Technology Based on Intelligent Full Frequency Fusion Inversion and Its Application** | Y. Xia\*, X. Chen, J. Song, B. Wang, D. Xiao, Q. Qi, Y. Wenwen, F. An, T. Zichang, Q. Li, H. Kongzhi (BGP)
- Station D: **Pore-Structure-Constrained Intelligent Permeability Prediction from Pre-stack Seismic** | D. Chang\*, H. Pan, J. Gao, J. Gui (Research Institute of Petroleum Exploration & Development-Northwest (NWGI), PetroChina)

## GM P1 Interpretation

8:00 AM - 9:40 AM

Session Chairs: Neda Bundalo and Naima Shariff

Location: Poster Location 3 (on the 3rd level)

- Station A: **GeoSAGE: Reproducible target assessment from joint gravity and magnetic inversion in the Northeast Iowa Intrusive Complex** | Z. Fang\*, H. Chen (University of Iowa)
- Station B: **Integrated Potential-Field Analysis of Basement Structure and Fault Reactivation in the Midcontinent Rift (Kansas)** | B. Bakioglu\*, G. P. Tsofilas (University of Kansas)
- Station C: **Quantifying Uncertainties in 3D Magnetic Inversion: Pecos Mafic Intrusive Complex, West Texas** | R. Arasada\*, S. Bhattacharya (Bureau of Economic Geology, The University of Texas at Austin)
- Station D: **3D Basement Depth from Gravity Inversion in West Texas** | R. Arasada\*, S. Bhattacharya (Bureau of Economic Geology, The University of Texas at Austin)



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## Tuesday, 18 August

### USC P1 Unconventional Plays and Applied Workflows

8:00 AM - 9:40 AM

*Session Chairs: Natalie Girlinghouse and Scott Singleton*

**Location: Poster Location 5 (on the 3rd level)**

- Station A: **Predicting Red Fork channel sand wells with a 90% accuracy: an Anadarko basin case study** | R. Schrynemeeckers\* (Amplified Geochemical Imaging LLC)
- Station B: **Wolfcamp formation in the Permian superbasin: a tale of two shale reservoirs** | R. Sorkhabi, P. Palash\*, V. Bajracharya, Y. Jo, M. Deo (University of Utah)
- Station C: **Source rock variability and hydrocarbon potential across the Nova Scotia and Newfoundland margins: insights from Ultimate Expellable Potential (UEP) reconstruction** | C. Cahill\*, J. Gorosabel Araus, P. Mann (University of Houston)
- Station D: **Integrated Log-Core-Evaluation of Reservoir Quality in the Cline and Wolfcamp Formations, Permian Basin** | P. Pothana<sup>1</sup>\*, J. Lee<sup>1</sup>, R. Trentham<sup>1</sup>, M. Henderson<sup>1</sup>, J. Stark<sup>1</sup>, R. Bianco<sup>2</sup> (1. University of Texas Permian Basin; 2. Fasken Oil and Ranch)

### USC P2 Canada and The Rockies

8:00 AM - 9:40 AM

*Session Chairs: Julie Bloxson and Drew Eddy*

**Location: Poster Location 6 (on the 3rd level)**

- Station A: **Niobrara Formation of the Powder River Basin** | S. Sonnenberg\* (Colorado School of Mines)
- Station B: **Cross-basinal kinetic modeling of the Mowry Shale in southwestern Wyoming** | A. D. Toner\* (Brigham Young University)
- Station C: **Infrastructure led exploration prospectivity in Jeanne d'Arc Basin** | A. K. Hartwig\*, H. Houlléville, S. Tierrablanca (TGS)
- Station D: **Integrating allostratigraphy with novel geochemical records from an attenuated Cenomanian-Turonian mudrock succession, Western Canadian Sedimentary Basin, Alberta, Canada** | J. T. Walker\*, S. Dworkin, S. C. Atchley (Baylor University)

### DMLA P3 Seismic Processing 1

10:20 AM - 12:00 PM

*Session Chairs: Francesco Brandolin and Harpreet Sethi*

**Location: Poster Location 1 (in the Exhibit Hall)**

- Station E: **A Graph-Based Framework for Consistent Full-Volume Phase Correction in Seismic Data** | T. Bisen, B. Shekar, D. Nanda\* (Rezlytix Technologies Private Limited)
- Station F: **PG-DIP: A PSF-Guided Deep Image Prior Framework for Post-Stack Seismic Resolution Enhancement** | M. Zhang<sup>1</sup>\*, K. Jiao<sup>1</sup>, X. Wang<sup>1</sup>, Y. Liu<sup>2</sup>, H. Zhang<sup>1</sup> (1. China University of Petroleum - Beijing at Karamay; 2. China University of Petroleum - Beijing)
- Station G: **Stable Training of a Residual WcGAN-GP for 4D Seismic Imaging: Application to Real Seismic Data** | K. d. Rincon\*, J. A. Collazos, Y. Medeiros de Faria, J. M. Araujo (UFRN)
- Station H: **Unsupervised intelligent classification and quality evaluation technology for massive seismic data** | L. Liu\*, W. Wang, W. Geng, Z. Guo, J. Zhang, F. Ni (BGP, CNPC)

### GEFE P1 Creating Hands-On Educational Experiences for Future Generations

10:20 AM - 12:00 PM

*Session Chairs: Esther Oyedele and Dolores van der Kolk*

**Location: Poster Location 1 (on the 3rd level)**

- Station E: **Small Classrooms, Big Earth Concepts: A Scalable Model for Kindergarten Geoscience Outreach** | E. O. Oyedele<sup>1</sup>\*, S. N. Vadlamudi<sup>1</sup>, C. Colleary<sup>2</sup>, C. J. Kroehler<sup>1</sup>, V. Diaz<sup>1</sup> (1. Virginia Tech; 2. Cleveland Museum of Natural History)
- Station F: **Transforming an interactive public outreach display into a CCUS curriculum for teachers, students, and communities** | C. Miller-DeBoer\*, M. Yunker (Oklahoma Geological Survey)
- Station G: **Making CCS technology and research accessible for public engagement and formal education** | D. van der Kolk\*, S. Hovorka, A. Luciano, K. Romanak (The University of Texas at Austin)
- Station H: **The coastal classroom: engaging Texas students in coastal research** | T. Caudle\* (Bureau of Economic Geology, The University of Texas at Austin)

### INT P1 Inversion

10:20 AM - 12:00 PM

*Session Chairs: Yong Hua and Fan Jiang*

**Location: Poster Location 2 (on the 3rd level)**

- Station E: **Application of frequency division inversion based on variational mode decomposition in interlayer identification** | Q. Zhou\*, X. Lu, X. Zhou (CNOOC China Limited, Tianjin Branch, P.R. China)
- Station F: **Facies-controlled inversion based on composite probability density function for matrix-dissolution multiphase pore reservoirs in large-scale carbonate platforms** | Y. Liu<sup>1</sup>\*, W. Zou<sup>1</sup>, M. Lv<sup>2</sup>, H. Zhao<sup>2</sup>, J. Dong<sup>1</sup>, x. Wei<sup>1</sup>, G. Zhou<sup>1</sup>, W. Wang<sup>1</sup>, K. Yang<sup>1</sup> (1. BGP, CNPC; 2. CNPC)
- Station G: **Fine characterization of high-energy shoal reservoirs with thin-layer description techniques** | F. Li\*, S. Yang, B. Zhu, L. Yang (Sinopec Geophysical Research Institute)
- Station H: **Quantitative correction for paleokarst underground river height based on forward and inversion modeling** | H. Lv\*, L. Yang, C. Zhang, Z. Sun (SINOPEC Geophysical Research Institute Co., Ltd)

### INT P2 Seismic Facies Classification

10:20 AM - 12:00 PM

*Session Chairs: Huyen Bui and Danping Cao*

**Location: Poster Location 3 (on the 3rd level)**

- Station E: **Quantitative Characterization of 3D Seismic Facies Constrained by Integrated Lithofacies and Paleogeomorphology** | H. Luo\* (Exploration and Development Research Institute of Shengli Oilfield)
- Station F: **Seismic multi-attribute interpretation insights using SHAP applied to unsupervised machine learning clustering** | H. A. Putra\*, H. Bedle (University of Oklahoma)
- Station G: **Physics-guided attribute selection for improved direct hydrocarbon indication** | M. Gad\* (University of Houston)

# Poster Sessions

\*Denotes presenter.

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Tuesday, 18 August

Station H: **High-resolution seismic facies classification using transfer learning with Res-Unet: A case study of X block in Ecuador** | J. Cheng<sup>1\*</sup>, K. Zhang<sup>2</sup>, Y. Gao<sup>1</sup>, Z. Ma<sup>1</sup>, C. Zhang<sup>1</sup>, T. Lin<sup>1</sup>, Y. Chen<sup>1</sup> (1. Research Institute of Petroleum Exploration and Development; 2. CNPC Andes (Ecuador) Company Limited)

## INT P3 Sedimentology and Geomorphology

10:20 AM - 12:00 PM

Session Chairs: Nicole Gonzalez and Rui Zhai

Location: Poster Location 4 (on the 3rd level)

Station E: **Tectono-stratigraphic evolution of Mundaú and Icarai sub-basins, Brazilian Equatorial Margin: insights from deep to ultra-deep waters** | K. A. Pereira<sup>1\*</sup>, I. Cerdeira<sup>1</sup>, D. L. Vasconcelos<sup>2</sup>, W. Lima<sup>1</sup>, K. Leopoldino Oliveira<sup>1</sup> (1. Universidade Federal do Ceará; 2. Universidade Federal de Campina Grande)

Station F: **Regional Chronostratigraphic Modeling of the Shallow Oriente Basin, Ecuador: The Critical Role of Volume Merging in Global Seismic Interpretation** | A. Fernandez<sup>1\*</sup>, L. F. Naranjo Gaibor<sup>2</sup> (1. Eliis Inc.; 2. EP PetroEcuador)

Station G: **Reservoir rocks in Cenozoic fluvial channels characterized by seismic sedimentology: a case study from Lenghu area, Qaidam Basin, China** | Z. Xu<sup>1\*</sup>, Y. Wang<sup>2</sup>, H. Zeng<sup>3</sup>, W. Zhao<sup>1</sup>, X. Zhu<sup>4</sup>, J. Jia<sup>1</sup>, J. Tian<sup>1</sup> (1. PetroChina Research Institute of Petroleum Exploration & Development (RIPED); 2. PetroChina Qinghai Oilfield Company; 3. The University of Texas at Austin; 4. College of Geosciences, China University of Petroleum, Beijing)

Station H: **Depositional systems and biostratigraphy of Wilcox Group deposits along the shoreline of the Toledo Bend Reservoir, East Texas** | P. P. Flaig<sup>1\*</sup>, C. Piela<sup>2</sup>, J. M. Bloxson<sup>3</sup>, D. van der Kolk<sup>1</sup>, V. Smith<sup>4</sup> (1. University of Texas at Austin; 2. BP; 3. Stephen F. Austin State University; 4. Ellington Geological Services)

## IPS P1 Ambient Field Methods

10:20 AM - 12:00 PM

Session Chairs: Shujaat Ali and Joel Le Calvez

Location: Poster Location 3 (in the Exhibit Hall)

Station E: **Ambient OBN Data Processing and Environmental-dependent Interferometric Analysis** | Y. Ding<sup>\*</sup>, J. C. Shragge, A. J. Girard (Colorado School of Mines)

Station F: **Study on ground amplification characteristics based on the microtremor observation database in Japan** | S. Senna<sup>\*</sup> (NIED)

Station G: **Trans-Dimensional Bayesian Inversion of Interferometric Frequency-domain Gradiometry** | D. Davis<sup>1\*</sup>, J. C. Shragge<sup>2</sup>, S. Omar<sup>3</sup> (1. Colorado School of Mines; 2. Colorado School of Mines; 3. Colorado School of Mines)

Station H: **Scholte-wave Adjoint Tomography for Building Low-frequency, Offshore Shear-wave Velocity Models** | A. Pandey<sup>\*</sup> (bp)

## IPS P2 Induced Seismicity and Monitoring

10:20 AM - 12:00 PM

Session Chairs: Adam Baig and Scott Singleton

Location: Poster Location 4 (in the Exhibit Hall)

Station E: **Quantifying aseismic slip in hydraulic fracture reactivation: A ground-truthed "Seismic Ratio" from an in-situ experiment** | A. Fujimoto<sup>\*</sup>, T. Takeuchi (Japan Organization for Metals and Energy Security)

Station F: **Source determination using reverse time migration for microseismic data with a modified imaging condition** | L. Zhang<sup>2\*</sup>, S. Sloan<sup>1</sup> (1. ERDC; 2. Crosstek)

Station G: **Wastewater disposal vs hydraulic fracturing induced seismicity near Snyder, Texas** | J. F. Hlavac<sup>1\*</sup>, x. chen<sup>1</sup>, B. A. Hoefer<sup>2</sup>, S. Montazeri<sup>1</sup> (1. Texas A&M University; 2. Devon Energy)

Station H: **Ground deformation study of the Blue Mountain geothermal production site and its associated with small-magnitude induced seismicity amid production operations** | A. Akhatuly<sup>1\*</sup>, T. Goebel<sup>2</sup>, J. Tung<sup>1</sup> (1. Texas Tech University; 2. University of Memphis)

## NS P1 Urban, Geotechnical, and Archaeological Applications

10:20 AM - 12:00 PM

Session Chairs: Dante Fratta and Julian Ivanov

Location: Poster Location 5 (in the Exhibit Hall)

Station E: **Depth imaging of deep-seated clandestine tunnels via reverse-time migration: A full-scale field validation in the DMZ area, South Korea** | H. Seong<sup>1\*</sup>, B. Yoon<sup>2</sup>, Y. Cho<sup>1</sup> (1. Seoul National University; 2. Korea Institute of Geoscience and Mineral Resources)

Station F: **Searching for unmarked burials using airborne drones, GPR, and magnetic methods at the historic Evergreen Cemetery, Houston, Texas** | O. N. Ojelabi<sup>\*</sup>, M. Shahriar, R. Stewart, M. N. Bugti (University of Houston)

Station G: **Quantitative Validation of Integrated UAV-GPR-ERT Methodology for Archaeological Prospection in Tropical Lateritic Environments** | C. Boateng<sup>\*</sup> (Kwame Nkrumah)

Station H: **A Comparative Study of Reverse Time Migration and Cross-hole Tomography for Defect Detection in Existing Pile Foundations** | P. Wang<sup>\*</sup> (China University of Geosciences)

## RCM P1 Depositional Architecture, Geobodies, and Facies Modeling

10:20 AM - 12:00 PM

Session Chairs: Diana Duran and Senthil Yuvaraj

Location: Poster Location 5 (on the 3rd level)

Station E: **Seismic Advisor: Interpretable seismic facies classification from elastic attributes for reservoir characterization** | L. M. Rojas<sup>\*</sup>, E. P. Silva, M. Y. E SILVA, V. Oliveira, P. Takayama, D. Michelon (ENEVA S.A)

Station F: **Application of Zoneless Static Earth Modeling for Shelf to Basin Correlation: Pennsylvanian-Permian Margins of the Eastern Midland Basin, TX, USA** | A. Eljalafi<sup>\*</sup>, A. Bonilla-Rodriguez, R. Holman (Ovintiv)





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## Tuesday, 18 August

- Station G: **Characterization of Complex Reservoir Lithology and Fracture Prediction in the ZH Metamorphic Buried Hill, China** | Y. Chen<sup>2\*</sup>, T. Liu<sup>2</sup>, L. Shi<sup>2</sup>, s. liang<sup>1</sup> (1. Petroleum Exploration and Production Research Institute, Sinopec; 2. Sinopec Key Laboratory of Oil & Gas Reservoir Geophysics)
- Station H: **Probabilistic 3D facies mapping of a volcanic reservoir using multivariate Bayesian inference** | G. Garcia Leiceaga\* (Multi-Physics Technologies)

### RCM P2 Artificial Intelligence, Machine Learning and Seismic Analytics

10:20 AM - 12:00 PM

*Session Chairs: Francisco Bolivar and Hong Tang*

**Location: Poster Location 6 (on the 3rd level)**

- Station E: **PIKAN-CRMIP: A physics-informed Kolmogorov-Arnold network-assisted capacitance resistance model for reservoir production characterization** | S. Rahimi<sup>1\*</sup>, K. Shukla<sup>2</sup>, B. Ghanbarian<sup>1</sup> (1. University of Texas at Arlington; 2. Brown University)
- Station F: **Integrated machine learning to predict reservoir lithofacies: the impact of multiresolution analysis and feature engineering, Bindley Field, Kansas** | A. Raef, G. Oke\*, M. Totten (Kansas State University)
- Station G: **A unified machine learning framework for 3D characterization of unconventional shale reservoirs: Integrating spectral decomposition, ensemble regressors, and well-log analytics** | U. Manzoor\*, F. Arshad, S. Oelfke (LMKR)
- Station H: **Alpha Shape Algorithm-Driven Multi-Level Morphological Modeling of Sedimentary Geobodies** | Z. Lei<sup>1\*</sup>, W. Zhang<sup>1</sup>, Y. Liu<sup>1</sup>, F. Ruan<sup>2</sup> (1. Sinopec Petroleum Exploration and Production Research Institute; 2. SLB)

### RCM P3 Integrated Reservoir Studies

10:20 AM - 12:00 PM

*Session Chairs: Carla Carvajal and Karilys Castillo*

**Location: Poster Location 7 (on the 3rd level)**

- Station E: **Digital Outcrop Modeling of the Castlegate Sandstone: Constraining Fluvial Reservoir Architecture Through High-Resolution Analog Characterization** | O. Tatum\*, S. M. Hudson, J. A. Robinson, A. Toner (Brigham Young University)
- Station F: **Constrained forward stratigraphic modelling of thin-bed (sub-seismic) reservoir connectivity: Carnarvon and Paris Basin case studies** | A. Wilson\*, J. Dulac, f. Lafferriere (Eliis)
- Station G: **Integrated 3D petrophysical and velocity modeling at the Central Basin Platform–Midland Basin boundary, West Texas** | C. Onyeakusi<sup>1\*</sup>, J. Stark<sup>1</sup>, P. Pothana<sup>2</sup>, J. Lee<sup>1</sup>, R. Bianco<sup>3</sup> (1. The University of Texas Permian Basin; 2. Postdoctoral Researcher; 3. Fasken Oil and Ranch)
- Station H: **Integrated geological and geophysical data analysis for Re-evaluation of Reserves in an oil and gas Field Cameron Parish, Louisiana** | H. Rehman\*, U. Kharel, R. Zhang, W. R. Finley (University of Louisiana at Lafayette)

### SG P1 Faults, Fractures and Fluids

10:20 AM - 12:00 PM

*Session Chairs: David Forand and Sarah Giles*

**Location: Poster Location 2 (in the Exhibit Hall)**

- Station E: **Diapir-Induced Deformation and the Organization of Seafloor Seeps** | A. B. Arogundade\*, N. Dawers (Tulane University)
- Station F: **The Challenge of Booking Oil and Gas Reserves Across Faults: SPE vs SEC** | T. Murray<sup>1\*</sup>, W. Power<sup>2</sup> (1. SHSGEO; 2. Power Geoscience Pty Ltd)
- Station G: **Stress shadow evolution and inter-well coupling during multi-well hydraulic fracturing: A three-scale framework for well spacing design** | P. Lian\*, Z. Fan, J. Zhang (Sinopec Tech Houston LLC)
- Station H: **Revealing Pore Pressure Patterns in Triassic Formation Through Multidisciplinary Analyses and Coupled Hydro-Mechanical Modeling** | A. Perbawa\*, Y. Alzayer, S. Elyas, T. H. Almhamidh (Saudi Aramco)

### SMT P1 Modeling in Anisotropic Media

10:20 AM - 12:00 PM

*Session Chairs: Valeriy Brytik and Xiang Li*

**Location: Poster Location 6 (in the Exhibit Hall)**

- Station E: **A Novel Finite-Difference Forward Modeling Method for the TTI Viscoacoustic Wave Equation** | H. Ren\*, H. Chen, H. Zhou (China University of Petroleum (Beijing))
- Station F: **Overcoming Anisotropy and Attenuation for Sweet Spot Imaging: A Case Study of Core-Constrained Dynamic Updating with Horizontal Wells in Gulong Shale Oil** | Y. Bao<sup>1\*</sup>, X. Ke<sup>2</sup>, Y. Wang<sup>1</sup>, X. Song<sup>1</sup>, z. yu<sup>1</sup> (1. Exploration and Development Research Institute of Daqing Oilfield Company Ltd. CNPC; 2. Northeast Petroleum University)
- Station G: **Efficient P- and S- Wavefield Decomposition with Preserved Amplitude and Phase in Elastically Anisotropic Media** | S. Tanner<sup>1</sup>, H. Hu<sup>1\*</sup>, Y. Zhang<sup>1</sup>, G. Huang<sup>2</sup>, F. Liu<sup>2</sup> (1. University of Oklahoma; 2. TGS)
- Station H: **High-Order finite difference numerical simulation of thermoelastic VTI media** | L. Wang\*, K. Liang (China University of Petroleum (East China))

### SP P1 Resolution Enhancement, Diffractions and Adaptive Subtraction

10:20 AM - 12:00 PM

*Session Chairs: Weihong Fei and Wenlong Wang*

**Location: Poster Location 7 (in the Exhibit Hall)**

- Station E: **Adaptive multiple suppression via physics based deep learning prediction** | C. Li\*, Y. Chen (The University of Texas at Austin)
- Station F: **Reflection/Diffraction separation of local directional projection signals using implicit neural representation** | M. Shustak\*, R. Levy, Z. Koren, E. Mendelman (Emerson)
- Station G: **Active Source S-DAS for onshore CCS application: a case study of the Fairview Road field trial** | C. F. Wilson\*, R. Bachrach, Y. Luo (SLB)
- Station H: **Case study: Transformer-based vertical resolution enhancement of seismic data from a candidate CCS site**



# Poster Sessions

\*Denotes presenter.

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Tuesday, 18 August

in the Gunsan Basin, Korea | G. Lee<sup>1\*</sup>, S. Seol<sup>1</sup>, J. Byun<sup>1</sup>, S. Kim<sup>2</sup>, M. Kang<sup>2</sup> (1. Hanyang University; 2. Korea Institute of Geoscience and Mineral Resources (KIGAM))

## DAS P1 Machine Learning and Processing

1:20 PM - 3:00 PM

Session Chairs: Lei Fu and Peiyao Li

Location: Poster Location 5 (on the 3rd level)

- Station A: **DAS-constrained interpolation of sparse geophone data using transformer architectures** | M. Tani\*, J. C. Shragge (Colorado School of Mines)
- Station B: **Distributed Optical Fiber Fading Noise Suppression Based on Statistically Guided Dictionary Learning** | J. Zhu\*, B. Liu, J. Wang, J. Zhu (Sinopec Geophysical Corporation)
- Station C: **Microseismic Monitoring Using Permanently Installed Fibre in a Producing Offshore Field: Event Detection, Location, and Interpretation** | J. M. Reyes Montes<sup>1\*</sup>, A. Constantinou<sup>1</sup>, A. Hartog<sup>1</sup>, G. Bergery<sup>2</sup>, L. Salembier<sup>2</sup>, F. Dabat<sup>2</sup>, E. Esor<sup>2</sup>, H. Lescanne<sup>2</sup>, D. Taylor<sup>2</sup>, D. MacKay<sup>2</sup> (1. Fosina; 2. Total Energies)
- Station D: **Microseismic Interferometry for Enhanced Geothermal Reservoir Imaging at Fervo CAPE Project** | X. Zhu<sup>1\*</sup>, J. Ajo-Franklin<sup>1</sup>, Y. Ma<sup>1</sup>, A. Titov<sup>2</sup>, S. Dadi<sup>2</sup>, S. Chu<sup>2</sup>, R. Gibson<sup>2</sup> (1. Rice University; 2. Fervo Energy)

## DMLA P4 Advanced Artificial Intelligence for Reservoir Connectivity, Forecasting, and Field Development

1:20 PM - 3:00 PM

Session Chairs: Jacob Jackson and Ana Krueger

Location: Poster Location 1 (in the Exhibit Hall)

- Station A: **Control-aware physics-guided Graph WaveNet for multiwell production forecasting and interpretable interwell connectivity** | S. Cai<sup>2\*</sup>, H. Wang<sup>2</sup>, Z. Chen<sup>2</sup>, S. Cui<sup>2</sup>, H. Pan<sup>1</sup>, C. Dai<sup>2</sup> (1. Yangtze University; 2. Sinopec)
- Station B: **Multi-Well Placement Optimization via Low-Rank FNO** | Q. Zhang\*, S. Nasser, A. Al-Ali, A. Mana (Aramco)
- Station C: **Automated end-to-end 3D stratigraphic correlation using a Spatio-Sequential Stratigraphic Graph Attention Network (S3-GAT) under extreme target-to-background imbalance** | X. Wang\* (China University of Petroleum-Beijing)
- Station D: **Integrating Agentic AI To Reservoir Simulation Workflows, For Faster Well Placement Decisions** | Y. Agbor\*, A. Lu, R. Mathis (Amazon Web Services)

## EM P1 Machine Learning Methods and Reservoir Surveillance

1:20 PM - 3:00 PM

Session Chairs: Jianguo Liu and Vladimir Puzyrev

Location: Poster Location 6 (on the 3rd level)

- Station A: **Coupled modeling of controlled source electromagnetics and streaming potential for monitoring fluid injection** | A. Shabelansky<sup>1\*</sup>, K. Walker<sup>1</sup>, G. Hoversten<sup>2</sup> (1. Chevron; 2. LBNL)
- Station B: **Feasibility of crosswell electrical resistivity tomography for monitoring hydrogen storage in the saline sandstone**

aquifer at the Devine test site, Texas | S. Swaminadhan<sup>1\*</sup>, A. Bakulin<sup>1</sup>, D. Alumbaugh<sup>2</sup>, S. Fomel<sup>1</sup> (1. The University of Texas at Austin; 2. Lawrence Berkeley National Laboratory)

- Station C: **Rapid Probabilistic Resistivity Imaging of AEM Data Using Conditional Variational Autoencoders** | Y. Huang\* (University of Houston)
- Station D: **Probing Australia's crust: Insights from continental-scale deep learning probabilistic inversion of AusAEM data** | S. Wu<sup>1\*</sup>, J. Sun<sup>2</sup>, J. Chen<sup>2</sup> (1. MIT; 2. University of Houston)

## EM P2 Electromagnetic New Technologies and Case Studies

1:20 PM - 3:00 PM

Session Chairs: Randall Mackie and Kyubo Noh

Location: Poster Location 7 (on the 3rd level)

- Station A: **Recoverability of subsurface resistivity structures from CSEM data: A case study** | S. Li\*, S. Mansfield, X. Wu (BP Plc)
- Station B: **Detecting electrical anisotropy associated with serpentinization using integrated amplitude- and phase-based magnetotelluric diagnostics** | B. Cherkose\*, M. Zhang, Y. Li (Colorado School of Mines)
- Station C: **On the relationship between water saturation and spectral induced polarization parameters for tight carbonates, an experimental study** | W. Wei<sup>2</sup>, Y. Li<sup>1\*</sup>, G. Lei<sup>2</sup>, Q. Zeng<sup>1</sup>, J. Song<sup>3</sup> (1. RIPED, PetroChina; 2. Tarim Oilfield Company, PetroChina; 3. BGP, CNPC)
- Station D: **Application of combining multi-scale 3D electromagnetic and seismic exploration in complex areas** | Z. Hu\*, J. Ren, Y. Shi, J. Liu, D. Tao, J. Liu, S. Xu, H. Luo (BGP, CNPC)

## GM P2 Inversion and Data Processing

1:20 PM - 3:00 PM

Session Chairs: Vsevolod Egorov and Luan Nguyen

Location: Poster Location 3 (in the Exhibit Hall)

- Station A: **Locating and characterizing undocumented buried well casings using magnetic data** | N. A. Shariff\*, M. Zhang (Colorado School of Mines)
- Station B: **Depth-localized blocking and physics-guided stochastic deep priors for 3D gravity inversion and uncertainty quantification** | P. Goyes\*, L. Suarez, A. Mantilla, H. Arguello (Universidad Industrial de Santander)
- Station C: **Physics-constrained 3D gravity inversion using Weighted Fourier Neural Diffusion Framework** | H. Olea<sup>1</sup>, A. Traversa<sup>1</sup>, D. Anikiev<sup>1</sup>, U. Waheed<sup>1\*</sup>, H. Goetze<sup>2</sup> (1. King Fahd University of Petroleum and Minerals; 2. Christian-Albrechts-University Kiel)
- Station D: **Characterizing the lithospheric thermal regime of the Central Appalachian Mountains using the centroid spectral method for Curie point depth estimation** | J. Barton\*, S. Sharma (West Virginia University)



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## Tuesday, 18 August

### PS P1 Geochemical Techniques

1:20 PM - 3:00 PM

*Session Chairs: Philip Bergeron and Adam Turner*

**Location: Poster Location 1 (on the 3rd level)**

- Station A: **Aromatic carotenoids and their derivatives in oil samples from the pre-salt section of the Santos basin: implications for different oil families** | C. A. Borges<sup>1\*</sup>, J. A. Iemini<sup>1</sup>, M. d. Gama<sup>1</sup>, L. P. Bastos<sup>2</sup>, A. D. Spigolon<sup>1</sup>, A. A. Ferreira<sup>1</sup>, M. A. dos Reis<sup>1</sup>, Y. d. Rocha<sup>1</sup> (1. Petrobrás; 2. Bureau Veritas)
- Station B: **Reservoir characteristics and petroleum potential of the carbonaceous shales of the Eccu Group (Main Karoo Basin) in boreholes KVV1 and SP1/69** | C. Baiyegunhi\* (University of Houston-Downtown)
- Station C: **Hydrocarbon Exploration using GCxGC-ToFMS Analysis of Volatile Organic Compounds: A New Frontier in Geochemical Prospecting** | S. Aldhamin<sup>1\*</sup>, I. Atwah<sup>1</sup>, V. Solovyeva<sup>1</sup>, R. Borisov<sup>2</sup>, M. Orlov<sup>1</sup> (1. Saudi Aramco; 2. A.V.Topchiev Institute of Petrochemical Synthesis of the Russian Academy of Sciences)
- Station D: **Integrating data-driven compound analysis with physics-informed kinetic modeling of hydrous pyrolysis on Type III kerogen** | J. Radovic<sup>1\*</sup>, J. Van Humbeck<sup>2</sup>, P. Srinivasan<sup>1</sup>, Q. Fu<sup>1</sup>, T. B. Malloy<sup>1</sup>, T. Sun<sup>1</sup> (1. University of Houston; 2. University of Calgary)

### PS P2 Production, Geochemical Techniques and Case History

1:20 PM - 3:00 PM

*Session Chairs: Hugo Coumont and Catherine Donohue*

**Location: Poster Location 2 (on the 3rd level)**

- Station A: **Enhanced oil recovery by gas injection in unconventional reservoirs** | T. Zhang\*, S. Peng, X. Sun, C. Walters (University of Texas at Austin)
- Station B: **Closed-Retort Water Geochemistry: A New Complementary Dataset for Fluid Characterization** | A. Zumberge\*, A. Ketting-Olivier (GeoMark)
- Station C: **Improving Temperature Estimates in Sedimentary Basins Beyond Gradient-Based Approaches** | H. S. Buitrago-Segura\*, K. Fuentes-Bustillos (CICESE)
- Station D: **The Nearshore to Onshore Petroleum System of Suriname** | E. Narain\* (Staatsolie)

### STUD P1 Field Applications

1:20 PM - 3:00 PM

*Session Chairs: Ting Gong and Ahmed Radwan*

**Location: Poster Location 2 (in the Exhibit Hall)**

- Station A: **Integrated geophysical mapping of exposed and buried seamounts on the Juan de Fuca Plate and their relationship to propagator wakes** | M. Salman\*, I. Filina (University of Nebraska-Lincoln)
- Station B: **Developing a calibrated geologic-geophysical workflow for reservoir property prediction in the Midland Basin** | A. Mohd Mokhdhari<sup>1\*</sup>, G. Jin<sup>1</sup>, R. Bianco<sup>2</sup> (1. Colorado School of Mines; 2. Fasken Oil and Ranch)
- Station C: **Integrated Reservoir Characterization and CO<sub>2</sub> Storage Analysis of the "Em" Field, Nigeria** | N. C. Idowu-Anifowoshe\* (University of Louisiana at Lafayette)

- Station D: **Identifying Geothermal Potential in the Piceance Basin Through Analysis of Thermal Anomalies and Petrophysical Properties** | M. Longworth\*, J. Tellez (Colorado Mesa University)

### STUD P2 Seismic Migration

1:20 PM - 3:00 PM

*Session Chairs: Maggie Jiao and Yanhua Liu*

**Location: Poster Location 4 (in the Exhibit Hall)**

- Station A: **3D least-squares reverse time migration in orthorhombic anisotropic media with pure qP-wave equation** | Y. Liu\*, J. Huang (China University of Petroleum (East China))
- Station B: **Structure-oriented preconditioning for least-squares reverse time migration** | J. Li\*, Y. Shen (China University of Petroleum (East China))
- Station C: **4D Monitoring of a Single Fracture Patch using Elastic RTM with a Rotated Staggered-Grid Linear Slip Model** | D. Kim\*, S. Choi, Y. Cho (Seoul National University)
- Station D: **Diffraction separation and imaging using a new common angle domain image gather** | H. Xu\*, H. Liu, Y. Shen (China University of Petroleum (East China))

### STUD P3 Deep Learning

1:20 PM - 3:00 PM

*Session Chairs: Husain Al Shakhs and Yongchae Cho*

**Location: Poster Location 5 (in the Exhibit Hall)**

- Station A: **Data-driven traveltime tomography using weak physics-constrained U-Net and a large-scale automatically generated dataset** | X. Gu<sup>1\*</sup>, H. Wang<sup>1</sup>, Q. Zhang<sup>1</sup>, J. Mu<sup>1</sup>, Z. Wang<sup>1</sup>, Z. Ahmed<sup>2</sup>, Z. Fang<sup>1</sup> (1. University of Electronic Science and Technology of China; 2. Mansoura University)
- Station B: **Seismic-driven prediction of total organic carbon using a Bayesian neural network** | N. Shaik<sup>1\*</sup>, N. Vedanti<sup>2</sup> (1. Academy of Scientific and Innovative Research (AcSIR); 2. CSIR-National Geophysical Research Institute)
- Station C: **P- and s-wave separation of multicomponent vsp data using a curvelet-based neural network** | T. Li<sup>1\*</sup>, H. Wang<sup>1</sup>, Y. Mao<sup>1</sup>, X. Gu<sup>1</sup>, Z. Ahmed<sup>2</sup>, Z. Fang<sup>1</sup> (1. University of Electronic Science and Technology of China; 2. Mansoura University)
- Station D: **Seismic signal denoising techniques using wavelet implicit neural representations** | Y. Mao<sup>1\*</sup>, H. Wang<sup>1</sup>, T. Li<sup>1</sup>, X. Gu<sup>1</sup>, Z. Ahmed<sup>2</sup>, Z. Fang<sup>1</sup> (1. University of Electronic Science and Technology of China; 2. Mansoura University)

### TI P1 Field Applications and Monitoring

1:20 PM - 3:00 PM

*Session Chairs: Abhijit Gangopadhyay and Anubhav Kohli*

**Location: Poster Location 3 (on the 3rd level)**

- Station A: **Hiding Near Zero: Magnetic Signatures of Relict Stream Channels on the Gulf of Mexico Outer Continental Shelf** | S. Opydyke<sup>1\*</sup>, R. Gearhart<sup>2</sup>, A. Haigh<sup>1</sup> (1. Xodus; 2. Bob Hydrographics)
- Station B: **Coproduction of Metal Rich Brines and Stimulated Hydrogen via Reactive Fluid Injection into Geological Rock Formations Concept and Bench Scale Evidence** | W. Yan<sup>1\*</sup>,

# Poster Sessions

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Tuesday, 18 August

P. Srinivasan<sup>2</sup>, E. M. Endara Arguello<sup>2</sup>, R. Goteti<sup>2</sup> (1. Houston Research Center-Aramco Americas; 2. Aramco Americas)

Station C: **Enhancing Water Depth Measurement Accuracy Using Near-Field Hydrophone Signatures** | G. Cai\* (BGP Inc., China National Petroleum Corporation (CNPC))

Station D: **Toward Continuous Offshore Seismic Monitoring: Design and Prototyping of a Permanent Marine Seismic Source** | J. Correa<sup>1\*</sup>, T. J. Wood<sup>1</sup>, B. C. Miranda<sup>2</sup>, J. Ajo-Franklin<sup>2</sup> (1. Lawrence Berkeley National Laboratory; 2. Rice University)

## TI P2 Computational Methods in Geoscience

1:20 PM - 3:00 PM

*Session Chairs: Sam Clayton and James Pape*

**Location: Poster Location 4 (on the 3rd level)**

Station A: **Scalable DataOps based Automation framework for seamless data flow between G&G applications, Data Stores and OSDU® Data Platform** | D. Dwihananto<sup>1\*</sup>, S. Saleem<sup>2</sup>, K. Devendran<sup>1</sup>, S. K. Patidar<sup>2</sup>, A. Kohli<sup>2</sup> (1. Chevron; 2. SLB)

Station B: **Gate-based variational quantum algorithms for seismic inversion** | O. Biswal<sup>4</sup>, D. Vashisth<sup>1\*</sup>, T. Mukerji<sup>2</sup>, M. Sen<sup>3</sup> (1. Stanford University; 2. Stanford University; 3. The University of Texas at Austin; 4. Indian Institute of Technology (Indian School of Mines) Dhanbad)

Station C: **Simultaneous 1D viscoelastic inversion via hybrid quantum PINNs in the NISQ era** | S. Dasgupta<sup>1\*</sup>, M. Sen<sup>1</sup>, D. Vashisth<sup>2</sup>, T. Mukerji<sup>2</sup> (1. The University of Texas at Austin; 2. Stanford University)

Station D: **Governing the invisible: why AI agents in geoscience demand an accountable foundation** | R. Jayan Menon\* (Blumware)

## TL P1 Synthetic and Case Studies

1:20 PM - 3:00 PM

*Session Chairs: Sailendra Mahapatra and Akshika Rohatgi*

**Location: Poster Location 6 (in the Exhibit Hall)**

Station A: **Time-lapse joint full-waveform inversion for tilted TI media** | A. M. Ahmed<sup>1\*</sup>, I. Tsvankin<sup>1</sup>, Y. Liu<sup>2</sup> (1. Colorado School of Mines; 2. Shell International Exploration and Production Inc.)

Station B: **Assessing potential for reservoir insights from multi vintage 4D streamer seismic at Grane** | G. Partyka<sup>1\*</sup>, O. Barkved<sup>2</sup>, M. Recordon<sup>2</sup>, M. Bush<sup>1</sup>, P. Gutowski<sup>1</sup>, J. Alison<sup>1</sup> (1. OpenGeoSolutions Inc.; 2. Petoro AS)

Station C: **4D Seismic Monitoring of CO2 Plume Extent at Sleipner: Adapting the Engineering Concept of Capacity (Reserve) Margin** | B. O. Nwafor<sup>1\*</sup>, M. Rauch<sup>3</sup>, K. Mehta<sup>2</sup>, J. Castagna<sup>1</sup> (1. University of Houston, Tx; 2. KM Geo-Consulting Services LLC; 3. Lumina Geophysical, LLC)

Station D: **Advancing time-lapse processing: a 4D processing study of ocean bottom node and towed streamer surveys** | V. Durussel<sup>1\*</sup>, A. Raj<sup>2</sup>, A. Hamdane<sup>2</sup>, M. Sourial<sup>2</sup>, L. Bartsch<sup>2</sup>, J. R. Hanna<sup>2</sup>, B. Szydluk<sup>2</sup>, T. Li<sup>1</sup>, M. Albertz<sup>1</sup> (1. Occidental; 2. SLB)

## TL P2 Theory, Uncertainty, and Machine Learning

1:20 PM - 3:00 PM

*Session Chairs: Obi Egbue and Denis Kiyashchenko*

**Location: Poster Location 7 (in the Exhibit Hall)**

Station A: **Machine learning-based time-lapse full waveform inversion for CCS monitoring** | C. Liu\* (Stanford University)

Station B: **Viability of 4D CSEM in Deepwater Reservoir Management: Reality or Myth** | A. Zerilli<sup>1\*</sup>, T. Labruzzo<sup>1</sup>, R. P. Souto<sup>1</sup>, P. d. Menezes<sup>2</sup> (1. LNCC; 2. Petrobras)

Station C: **Echoes of Depletion: Fluid Relaxation and Pressure Signatures in 4D Seismic** | V. Garcia\*, A. Allan, O. Arslan (Hess Corporation)

Station D: **A guided diffusion model for 3D direct time-lapse velocity change estimation** | M. Khatami\*, M. H. Taufik, T. Alkhalifah (King Abdullah University of Science and Technology)

## DAS P2 Reservoir Monitoring

3:40 PM - 5:20 PM

*Session Chairs: Ge Jin and Yuanyuan Ma*

**Location: Poster Location 4 (on the 3rd level)**

Station E: **Prestack reflection response of trenched DAS versus OBN and streamer for the Gulf Coast model** | A. Titova<sup>1\*</sup>, A. Bakulin<sup>1</sup>, J. Badger<sup>2</sup> (1. Bureau of Economic Geology, University of Texas at Austin; 2. FrequentSol)

Station F: **Acquisition and Analysis of Baseline SOV-DAS VSP Data for CCUS monitoring in the Hirai Field, Japan** | R. Naruse<sup>1\*</sup>, K. Fuita<sup>1</sup>, A. Fujimoto<sup>2</sup>, Y. Shimano<sup>2</sup>, S. Yavuz<sup>3</sup>, F. Stanek<sup>3</sup>, B. Freifeld<sup>4</sup> (1. INPEX Corporation; 2. Japan Organization for Metals and Energy Security; 3. Silixa; 4. Class VI Solutions, Inc.)

Station G: **Investigation of Apparent Axial Response in Seabed Distributed Acoustic Sensing Using Active Source Experiments** | C. Xiao\*, G. Jin (Colorado School of Mines)

Station H: **P-S Converted Wave Imaging of Subsalt Reservoirs Using DAS and OBN Data: A Case History from Gulf of America** | Z. Zhou<sup>1\*</sup>, A. Tran<sup>1</sup>, L. Duan<sup>1</sup>, Y. Tian<sup>2</sup>, K. Zhang<sup>2</sup>, R. Dash<sup>2</sup>, I. Lim Chen Ning<sup>2</sup>, S. Oppert<sup>2</sup> (1. BGP Inc.; 2. Chevron U.S.A. Inc.)

## DMLA P5 Seismic Interpretation 1

3:40 PM - 5:20 PM

*Session Chairs: Nadima Dwihusna and Hesham Refayee*

**Location: Poster Location 1 (in the Exhibit Hall)**

Station E: **Enhancing seismic fault picking using denoising diffusion probabilistic model (DDPM)-based data augmentation** | T. Q. Agbaje\*, Y. Chen<sup>1</sup>, A. Sansal<sup>2</sup>, N. Pham<sup>2</sup> (1. University of Texas at Austin; 2. SLB)

Station F: **Multi-Scale Fault Detection via Dual-Stage Transfer Learning Based on Synthetic Pretraining** | H. Wang<sup>2\*</sup>, M. Li<sup>2</sup>, Y. Liu<sup>2</sup>, Q. Ma<sup>2</sup>, H. Pan<sup>1</sup>, C. Dai<sup>2</sup> (1. Yangtze University; 2. SINOPEC Exploration & Production Research Institute)

Station G: **Synthetic data generation for faults networks** | A. Canning<sup>1\*</sup>, F. Vizeu<sup>2</sup>, J. Zambrini<sup>2</sup> (1. Emerson (Paradigm); 2. Emerson (Canada))

Station H: **Automated fault surface segmentation using machine learning** | A. Canning<sup>1\*</sup>, F. Vizeu<sup>2</sup>, J. Zambrini<sup>2</sup> (1. Emerson; 2. Emerson (Canada))





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## Tuesday, 18 August

### LAC P1 Campos and Santos Basins

3:40 PM - 5:20 PM

Session Chairs: Laura Faulkenberry and Flavio Fernandes

Location: Poster Location 2 (in the Exhibit Hall)

- Station E: **Three-phase, Early Cretaceous rifting of the northern Campos rifted margin of Brazil from 3D seismic analysis and structural restoration** | R. Beltran\* (University of Houston)
- Station F: **Diagenetic and textural influence on reservoir quality of pre-salt reworked deposits from the Jubarte and Baleia Franca fields, Campos Basin, Brazil** | G. Armelenti\*, E. M. Dario, R. d. Alvarenga (Universidade Federal do Rio Grande do Sul)
- Station G: **Pre-Salt Prospectivity in the Southeastern Outboard Santos Basin, Brazil: New Perspectives After the Bumerangue Discovery** | A. Portella\*, E. Leabon, G. Souza, A. Gordon, M. Gatti, A. Lougon (Viridien)
- Station H: **Stratigraphic framework and depositional controls on Pre-Salt clastic carbonate deposits in the northern Campos Basin, Brazil** | A. Souza dos Santos\*, F. Bochi do Amarante, R. d. Alvarenga (Federal University of Rio Grande do Sul)

### SMT P2 Modeling and Migration

3:40 PM - 5:20 PM

Session Chairs: Weihong Fei and Yulang Wu

Location: Poster Location 3 (in the Exhibit Hall)

- Station E: **Rayleigh-Marchenko Imaging Using Neural Operator-Based Wavefield Extrapolation** | D. F. Pacheco<sup>3\*</sup>, C. A. Leao<sup>3</sup>, D. E. Revelo Apraez<sup>3</sup>, R. Pestana<sup>1</sup>, H. Sethi<sup>2</sup> (1. Federal University of Bahia; 2. NVIDIA; 3. SENAI CIMATEC)
- Station F: **Adaptive Sponge Boundary Absorption Method for 3D Elastic Wave Forward Modeling** | F. He\*, J. Zhang, X. Yu, Z. Hu, Z. Di (Sinopec Geophysical Corporation)
- Station G: **Seismic wave modeling in irregular topography using a tensorial formulation with orthogonal curvilinear coordinates** | I. Sanchez\*, D. Trad (University of Calgary)
- Station H: **Efficient image-domain least-squares migration in transversely isotropic media using a broadband wavelet** | T. Shan<sup>1</sup>, J. Yang<sup>1</sup>, J. Huang<sup>1</sup>, W. Wang<sup>1</sup>, K. Yu<sup>1</sup>, Y. Liu<sup>1</sup>, R. Bi<sup>2\*</sup> (1. China University of Petroleum (East China); 2. China University of Petroleum (East China) (Non-Author))

### SP P2 Deghosting and Bandwidth Control

3:40 PM - 5:20 PM

Session Chairs: Aravind Nangarla and Akshika Rohatgi

Location: Poster Location 1 (on the 3rd level)

- Station E: **ML deghosting for multi vintage marine seismic data: an augmented learning approach from the Krishna Godavari Basin, India** | G. Stock, O. Brusova\*, M. Roberts, D. Bookes, S. Mannick, A. Knowles, R. Yates (TGS)
- Station F: **Robust multi-shot deghosting under complex wavefield interference using nonconvex sparse-constrained inversion** | J. Zhang\*, J. Yang, Y. Tao (Sinopec Geophysical Research Institute Co. Ltd.)
- Station G: **Phase sensitivity and generalization control in deep learning seismic high-resolution processing** | Y. Xu\*, Y.

Zong, S. Yuan, H. Li, S. Wang (China University of Petroleum)

- Station H: **Application of deep learning-based de-ghosting to P-cable data** | R. G. van Borselen\*, S. Holland, S. Brown, I. Vasconcelos (Shearwater Geoservices)

### SP P3 Denoising and Noise Suppression Methods

3:40 PM - 5:20 PM

Session Chairs: Xinru Mu and Heather Yao

Location: Poster Location 2 (on the 3rd level)

- Station E: **Suppression methods for multi-domain noise feature fitting and modeling** | Z. Sun\* (Sinopec Geophysical Research Institute Co., Ltd)
- Station F: **Low-SNR first-break denoising based on curvelet sparsity and dual-attention SCU-Net** | Y. Xu, Y. Hou, N. Wang, Z. Bai, G. Ren, C. Zhang\*, X. Zhou (BGP, CNPC)
- Station G: **Domain-adapted DDRM for practical seismic denoising** | D. Ma\*, L. Sun, Q. Xu, X. Jiao, W. Wang, S. Wang, H. Wang, M. Zhang (China Oilfield Services Ltd.)
- Station H: **Predictability Meets Sparsity: FX Deconvolution with Sparse FK Regularization** | A. I. Quiaro\*, J. A. Acedo, M. D. Sacchi (University of Alberta)

### SP P4 Interpolation, Reconstruction and Regularization

3:40 PM - 5:20 PM

Session Chairs: Brad Wray and Zhimei Yan

Location: Poster Location 3 (on the 3rd level)

- Station E: **3D Anti-Aliasing Seismic Data Interpolation via Shape-DTW Driven Local Slope Estimation** | Y. Xu\*, S. Yu, R. Lin (Harbin Institute of Technology)
- Station F: **High-dimensional irregular seismic data reconstruction based on interpolated tensor completion** | L. Dong<sup>1\*</sup>, S. Guo<sup>1</sup>, Y. Qi<sup>1</sup>, Z. Yang<sup>1</sup>, Z. Hao<sup>1</sup>, Z. Liu<sup>1</sup>, R. Lin<sup>2</sup> (1. BGP, CNPC; 2. Harbin Institute of Technology)
- Station G: **Simultaneous Seismic Interpolation and Elevation-Statics Correction via Elevation Coordinate Priors with Uncertainty Quantification** | Y. Xu\*, M. Zhou, S. Yu, R. Lin (Harbin Institute of Technology)
- Station H: **3D Inter-Cable Interpolation with a tau-p POCS algorithm** | K. Zhao\*, J. Ma, X. Chen, P. Gao, Z. Chen (China University of Petroleum (BeiJing))

### SP P5 Velocity Model Building and Tomographic Updates

3:40 PM - 5:20 PM

Session Chairs: Carlos Calderon and Lei Zhuo

Location: Poster Location 5 (on the 3rd level)

- Station E: **Research and application of P-wave and S-wave joint tomography technology constrained by marker layers in low-permeability oil exploration areas of the Tarim Basin** | Q. Wang\*, T. Gong, Y. Guan, Y. Zhang, D. Li, W. Luo (BGP Inc, CNPC)
- Station F: **Application of attribute constraint velocity modelling for collision zone in Ordos Basin, China** | B. Jiang\* (Sinopec Geophysical Research Institute Co., Ltd.)



# Poster Sessions

\*Denotes presenter.

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Tuesday, 18 August

- Station G: **Accelerating Tomographic Updates with Physics-Based Deep Learning and Realistic Earth Models** | M. Roberts\*, L. Gabioli, O. Brusova, D. Bookes, A. Valenciano (TGS)
- Station H: **Research on Integrated Surface Wave and Reflection Wave Velocity Modeling Technology for Improving Reservoir Imaging Accuracy** | X. Song\*, Y. Bao, Y. Wang, Z. Zhao, h. chu, Z. Zhang (Exploration and Development Research Institute of Daqing Oilfield Company Ltd. CNPC)

## SP P6 Reverse Time Migration and Imaging Applications

3:40 PM - 5:20 PM

Session Chairs: Sizhuang Deng and Yi Tao

Location: Poster Location 6 (on the 3rd level)

- Station E: **High-precision velocity model building and imaging techniques for complex TZ OBN seismic data** | H. Cheng\*, H. Zhang, Y. Chen, W. Wang, J. Wang, H. Liu (BGP CNPC)
- Station F: **Application of Least-Squares Reverse Time Migration in fluvial channel identification** | Y. Chen\*, X. Liu (Sinopec Geophysical Research Institute)
- Station G: **An efficient reverse time migration method for rugged topography** | Q. Tan\*, H. Chen, H. Zhou (China University of Petroleum (Beijing))
- Station H: **Frequency dependence of wave-equation Kirchhoff migration travel times** | M. D. Merzlikin<sup>1</sup>\*, S. Swaminadhan<sup>2</sup>, G. Flagg<sup>1</sup>, C. Lapilli<sup>1</sup>, X. Du<sup>1</sup> (1. SLB; 2. The University of Texas at Austin)

## STUD P4 Depositional Systems and Reservoirs

3:40 PM - 5:20 PM

Session Chairs: Nataly Chacon and Howard Harper

Location: Poster Location 5 (in the Exhibit Hall)

- Station E: **Deepwater Turbidite Lobe Morphodynamics: Architectural Insights from the Moki Formation, Offshore Taranaki Basin, New Zealand and Correlation with Experimental and Outcrop Data** | A. Chattopadhyay\*, E. Steel (Queen's University)
- Station F: **The Carbon Storage Potential of the Bunter Sandstone in the Southern North Sea, Offshore UK** | B. Heerdink<sup>1</sup>, S. Gupta<sup>1</sup>, E. Chowdhury<sup>1</sup>\*, R. Abrar<sup>1</sup>, A. Chowdhury<sup>2</sup>, O. Adeboboy<sup>3</sup>, B. Romans<sup>1</sup>, R. Pollyea<sup>1</sup> (1. Virginia Tech; 2. University of Texas at Dallas; 3. Georgia Tech)
- Station G: **New Constraints on Sediment Routing of the Iron Springs Formation in Southwest Utah** | J. A. Robinson\*, S. M. Hudson, B. B. Britt, O. Tatum, A. Toner, B. Taylor (Brigham Young University)

## STUD P5 Climate, Environment, and Community

3:40 PM - 5:20 PM

Session Chairs: Jack Fekete and Shu Luan

Location: Poster Location 7 (in the Exhibit Hall)

- Station E: **Assessing Carbon Pools and Stability in Coastal Prairie Soils Using Programmed Pyrolysis** | P. V. Nguyen<sup>1</sup>\*, N. Bouton<sup>2</sup>, J. Radovic<sup>1</sup> (1. University of Houston; 2. Vinci Technologies)

- Station F: **An integrated geospatial modeling framework for predicting groundwater contamination risk of quarried karst under post-mining reclamation scenarios** | K. Tran\* (Austin Community College)
- Station G: **Mapping change: Integrating community knowledge and geoscientific methods to interpret fluvial geomorphology** | L. Welcome\* (Colorado School of Mines)
- Station H: **A comparison of warfare-related metallic sediment distribution and beach processes associated with WWII in Normandy, France and Saipan** | K. I. Ramirez\*, S. Crockett (Brigham Young University)

## SUS P1 Advances in Sustainable Geo-energy Development 1

3:40 PM - 5:20 PM

Session Chairs: Uzonna Anyiam and Arpana Sarkar

Location: Poster Location 4 (in the Exhibit Hall)

- Station E: **A Machine Learning Approach for Estimating Total Suspended Solids in Estuarine Waters Using Hyperspectral Satellite and In Situ Data** | O. Karaca<sup>1</sup>\*, S. D. Khan<sup>1</sup>, B. Carlson<sup>1</sup>, K. Wright<sup>2</sup>, C. A. Tinono<sup>1</sup>, C. Raymond<sup>1</sup> (1. University of Houston; 2. Postdoctoral Researcher)
- Station F: **Matrix Effects on the Gas Chromatographic Quantification of Hydrogen Gas** | E. M. Endara Arguello<sup>1</sup>, W. Yan<sup>1</sup>\*, P. Srinivasan<sup>1</sup>, R. Goteti<sup>1</sup>, C. Sandu<sup>1</sup>, Y. Alzayer<sup>2</sup> (1. Aramco Americas; 2. Aramco)
- Station G: **pCO<sub>2</sub> as a Primary Control on Critical Element Recovery from Coal Byproducts** | A. Clark\*, A. Pathak, S. Sharma (West Virginia University)
- Station H: **Novel representative elementary volume (REV) analysis of dispersion in heterogeneous aquifers: Implications for field-scale solute transport modeling** | G. Gromofsky\* (Kent State University)

## SUS P2 Advances in Sustainable Geo-energy Development 2

3:40 PM - 5:20 PM

Session Chairs: Uzonna Anyiam and Jeffrey Duxbury

Location: Poster Location 6 (in the Exhibit Hall)

- Station E: **Using machine learning property modeling trained with Seismic Inversion for delineating optimum storage sites** | A. Ahmad\* (Schlumberger)
- Station F: **Understanding Mechanisms of Lithium Association with Pyrite in Black Shales** | A. Pathak\*, J. Barton, A. Clark, S. Sharma (West Virginia University)
- Station G: **From Records to Reality: A Tiered Workflow for Abandoned Well Detection** | P. Sinclair\*, Z. Wilson, R. R. Bhattarai (Terracon Consultants Inc)
- Station H: **The effect of CO<sub>2</sub> leakage on near-seafloor biogeochemical reactions using multiscale reactive transport modeling** | Y. O. Azeez<sup>1</sup>\*, M. Vasilyeva<sup>1</sup>, R. Coffin<sup>1</sup>, I. A. Pecher<sup>1</sup>, C. Knapp<sup>2</sup> (1. Texas A&M University, Corpus Christi; 2. Oklahoma State University)



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## Wednesday, 19 August

### AP P1 Carbonate Reservoirs and Petroleum System Risk Analysis

8:00 AM - 9:40 AM

*Session Chairs: Vicki Amir and Gregory Blache-Fraser*

**Location: Poster Location 3 (on the 3rd level)**

- Station A: **Isotopic Constraints on the Origin of CO<sub>2</sub> and H<sub>2</sub>S in a Miocene Carbonate Gas Reservoir** | K. Jankaew<sup>1\*</sup>, J. Curiale<sup>2</sup>, R. H. Worden<sup>3</sup>, P. Thamniyom<sup>1</sup> (1. PTTEP; 2. Geochemical Advisory Services; 3. University of Liverpool)
- Station B: **Connectivity path identification in carbonate reservoirs using wolf pack optimization algorithm** | J. Zhao<sup>1\*</sup>, Q. Ran<sup>1</sup>, B. Zhu<sup>1</sup>, L. Yang<sup>1</sup>, J. Geng<sup>2</sup> (1. Sinopec Geophysical Research Institute; 2. Tongji University)
- Station C: **Exploring the Deep Offshore Mahanadi Basin: Insights into Carbonate Platforms and Petroleum Potential** | S. Krishnan, N. Gungor\* (University of Houston)
- Station D: **Quantitative Analysis for Velocity Model Building Based on Ultra-deep Reservoir Simulation** | Z. Liu<sup>1\*</sup>, H. Zhang<sup>2</sup>, D. Jiang<sup>2</sup>, Z. Ma<sup>1</sup> (1. Sinopec Petroleum Exploration and Production Research Institute; 2. Key Laboratory of Oil & Gas Reservoir Geophysics SINOPEC)

### CAEV P1 Carbonates by the Numbers

8:00 AM - 9:40 AM

*Session Chairs: Antonio Buono and William Morgan*

**Location: Poster Location 1 (on the 3rd level)**

- Station A: **Quantitative Delineation of Gross Depositional Environments Across the Slope to Basin Transition using Oil Geochemistry, Midland Basin, Texas, USA** | A. Eljalafi<sup>1\*</sup>, D. Hull<sup>2</sup>, R. Holman<sup>1</sup>, A. Bonilla-Rodriguez<sup>1</sup>, D. Katz<sup>1</sup> (1. Ovintiv; 2. Practical Geoscience and Petrography, LLC)
- Station B: **Lithofacies-Controlled CO<sub>2</sub> Transport and Reservoir-Seal Architecture in the Lockport Dolomite** | S. Bonsu\*, O. Oyawale, S. Bowman, S. Sharma, A. Weislogel (West Virginia University)
- Station C: **High-resolution geomodeling for multimineral well log interpretation and porosity partitioning of Permian carbonates via the Differential Staged Effective Medium model** | F. J. Angel-Saez\*, T. H. Khan, M. Myers, L. A. Hathon, G. Unomah (University of Houston)
- Station D: **Carbon And Oxygen Isotope Stratigraphy Of Paleogene-Neogene Carbonates from the Mumbai Offshore and Kerala-Konkan Basins, India** | N. Choudhary\* (Oil & Natural Gas commission Ltd., India)

### DAS P3 Near Surface

8:00 AM - 9:40 AM

*Session Chairs: Eileen Martin and Xiaoyu Zhu*

**Location: Poster Location 4 (on the 3rd level)**

- Station A: **Integrated DAS and 3C geophone seismic imaging for near-surface environmental monitoring** | E. R. Mohamed\*, M. Majdanski (Institute of Geophysics Polish Academy of Sciences)
- Station B: **Long term S-DAS interferometry on land: Practical considerations** | R. Bachrach\*, S. Re, A. Y. Sayed, Y. Luo, S. Crawley, J. Smith (SLB)

- Station C: **High-resolution seismic imaging of lakebed sediments in Yigong Lake, Tibetan Plateau using distributed acoustic sensing** | Y. Zhou<sup>1\*</sup>, J. Yang<sup>1</sup>, H. Zhang<sup>2</sup> (1. Tongji University; 2. Chinese Academy of Sciences)
- Station D: **Low-Frequency DAS for Non-Intrusive Traffic Load Measurement and Vehicle Weight Estimation on a Highway Bridge** | P. He\* (CSM)

### IPS P3 Induced and Passive Monitoring

8:00 AM - 9:40 AM

*Session Chairs: Ting Chen and Takashi Mizuno*

**Location: Poster Location 5 (on the 3rd level)**

- Station A: **Comparison of geophone and seismometer for regional-scale induced seismicity monitoring** | X. Fang\*, S. Li, T. Chen (SensorEra Inc)
- Station B: **Velocity Model Optimization in Vaca Muerta from Passive Seismic Monitoring** | N. Hermawan<sup>1</sup>, Y. Geng<sup>1\*</sup>, B. Witten<sup>1</sup>, R. Varela<sup>2</sup>, D. Curia<sup>2</sup>, E. Valeff<sup>2</sup> (1. Nanometrics Inc.; 2. TecPetrol)
- Station C: **Microseismic event localization in underground water-sealed oil-storage caverns** | Y. Tang<sup>1\*</sup>, D. Peng<sup>2</sup> (1. Sinopec Geophysical Research Institute; 2. Yangtze University)
- Station D: **Physics-Informed Neural Operator for DAS-Based Microseismic Localization at Utah FORGE** | B. A. Al-Qadasi<sup>1</sup>, U. Waheed<sup>1\*</sup>, A. Abdullin<sup>1</sup>, D. Anikiev<sup>1</sup>, C. Song<sup>2</sup> (1. King Fahd University of Petroleum and Minerals; 2. Jilin University)

### LCS P1 Storage Characterization 1

8:00 AM - 9:40 AM

*Session Chairs: Kathryn Denomme and Scott Singleton*

**Location: Poster Location 6 (on the 3rd level)**

- Station A: **The "Cold-Dense" Effect: How Geothermal Heterogeneity Controls CO<sub>2</sub> Storage Capacity** | S. Lee<sup>3</sup>, J. Kim<sup>2</sup>, J. Lee<sup>1\*</sup>, J. Byun<sup>2</sup> (1. The University of Texas Permian Basin; 2. Hanyang University; 3. SLB)
- Station B: **Basin-Scale Assessment of Salina Group Salt-Cavern Gas Storage Potential in the Michigan Basin, USA** | L. Ruiz Maraggi, E. Rodriguez Calzado\*, E. Radjef, L. Melani, L. Ko, L. G. Moscardelli (Bureau of Economic Geology, Jackson School of Geosciences, The University of Texas at Austin)
- Station C: **When data is short: characterizing potential carbon storage reservoirs with limited information** | J. W. Koster\*, K. Lechtenberg, B. Roth (Advanced Resources International)
- Station D: **CO<sub>2</sub> storage potential of the Lockport Group in the Appalachian Basin: insights from well logs and formation-water chemistry** | O. S. Oyawale\*, T. R. Carr, S. Sharma (West Virginia University)

# Poster Sessions

\*Denotes presenter.

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Wednesday, 19 August

## LCS P2 Storage Characterization 2

8:00 AM - 9:40 AM

Session Chairs: Katrina Coterill and Fabien Laugier

Location: Poster Location 7 (on the 3rd level)

- Station A: **Evaluating CO2 storage capacity and containment risk in a saline aquifer system, Cooper Basin, Australia** | S. M. Rijjiya\*, N. Thomas, V. Towaju, J. F. Hlavac, Q. Kalu, A. Trinh (Texas A&M University)
- Station B: **Subsurface Energy Storage Potential of Salt Domes in the Netherlands** | A. R. Cervantes, L. Ruiz Maraggi\*, L. G. Moscardelli (Bureau of Economic Geology, The University of Texas at Austin)
- Station C: **Potential for CO2 storage in the Whale and South Whale basins** | A. Johnson, A. Malcolm\*, K. Welford (Memorial University of Newfoundland)
- Station D: **Numerical study of mechanical properties of CO2 hydrate-cemented sediments** | G. ZHOU, J. Wang\*, Q. Li (Beijing Huairou Laboratory)

## SG P2 Structural Styles: Lithosphere to Thin Section

8:00 AM - 9:40 AM

Session Chairs: Leonel Gomez Torres and David Lankford-Bravo

Location: Poster Location 2 (on the 3rd level)

- Station A: **Role of basement heterogeneity on evolution of extensional and trans-tensional basins and faults: Examples from the Arabian Plate** | S. A. Alqahtani\* (Saudi Aramco)
- Station B: **Redefining the crustal architecture of continental margins: the end of 'transitional' crust** | P. J. Markwick<sup>1\*</sup>, D. Paton<sup>2</sup> (1. Knowing Earth; 2. Tectonknow)
- Station C: **WITHDRAWN: Advances in numerical modelling of salt basins and salt tectonics – from entire conjugate rifted margins to diapir-minibasin scale** | L. M. Pichel\*, R. Huismans, T. Theunissen (University of Bergen)
- Station D: **Characterization of Mechanical Parameters of detachment Layers and Application of Discrete Element Simulation Based on Petrophysical Modeling** | L. Chao<sup>2\*</sup>, S. Qianggong<sup>1</sup>, Y. Wen<sup>2</sup>, W. Wei<sup>1</sup>, Z. Shan<sup>1</sup>, W. Zhou<sup>1</sup>, X. Lian<sup>1</sup> (1. BGP; 2. China University of Petroleum (Beijing))

## AAS P2 Frequency Dependent Seismic Analysis

10:20 AM - 12:00 PM

Session Chairs: Venkatesh Anantharamu and Dhananjay Kumar

Location: Poster Location 5 (on the 3rd level)

- Station E: **Seismic identification of subtle sweet spots in tight sandstones using multiscale AVO attribute enhancement and pre-stack noise attenuation** | H. Zhang<sup>1\*</sup>, X. Huang<sup>1</sup>, J. Liu<sup>2</sup>, B. Li<sup>2</sup>, M. Lou<sup>2</sup> (1. Southwest Petroleum University; 2. CNOOC Shanghai)
- Station F: **Pre-stack Frequency-dependent Inversion Incorporating Pore Structure** | H. Pan\*, D. Chang, J. Gao, J. Gui (Research Institute of Petroleum Exploration & Development-Northwest (NWGI), PetroChina)

- Station G: **Non-stationary Seismic Inversion for Marine Oil Reservoirs in sparse well-control conditions** | K. Luo\*, Z. Zong, C. Wang (China University of Petroleum (East China))
- Station H: **Application of intelligent lithofacies constrained fusion frequency inversion technology in volcanic rock dessert prediction** | B. Wang\*, X. Yin, x. Guo, B. Sun, A. AiErKen, G. Zhong, S. Qin (BGP, CNPC)

## AAS P3 Case Study

10:20 AM - 12:00 PM

Session Chairs: Kaushik Banerji and Hemali Patel

Location: Poster Location 6 (on the 3rd level)

- Station E: **Research and Application of Seismic Prediction Method for In-situ Stress in Deep Coalbed Methane Reservoirs, Eastern Ordos Basin** | Z. Linke\*, Y. Wang, Y. Jingyang, H. Fuwen, X. Yao, M. Qiang, Y. Chen, X. Zhang (BGP, CNPC)
- Station F: **Research on Direct Inversion Method of Shale gas Reservoir Property Parameters Driven by Rock Physics** | X. Li<sup>2</sup>, Y. Zeng<sup>1\*</sup>, Y. Guo<sup>3</sup>, K. Zhang<sup>4</sup>, J. Sun<sup>4</sup> (1. Central South University; 2. China University of Petroleum (Beijing); 3. Kunlun Digital Technology Co., Ltd; 4. Beijing Precise Energy Technology Co., Ltd)
- Station G: **Effective space calculation method for karst paleochannels based on multi-parameter constraints** | L. Yin\*, H. Lv, J. Yang, L. Yang, J. Wu (Sinopec Geophysical Research Institute Co., Ltd.)
- Station H: **Optimal fluid-angle extended elastic impedance inversion for gas sand prediction in coal-bearing reservoirs: a case study from the Xihu Depression** | Q. Cao<sup>1\*</sup>, J. Zhang<sup>1</sup>, J. Huang<sup>2</sup>, T. Liu<sup>2</sup>, F. Zhou<sup>2</sup>, C. Jiang<sup>2</sup> (1. China University of Petroleum (East China); 2. SINOPEC Shanghai Offshore Oil & Gas Company)

## AAS P4 Machine Learning and More

10:20 AM - 12:00 PM

Session Chairs: Dwaipayan Chakraborty and Dileep Tiwary

Location: Poster Location 7 (on the 3rd level)

- Station E: **Acoustic Impedance Inversion Using Uncertainty-Regularized Evidential Deep Learning** | Z. Zhou<sup>1\*</sup>, G. Liu<sup>1</sup>, G. Xu<sup>2</sup>, Z. Li<sup>1</sup>, Y. Wang<sup>1</sup>, J. Sun<sup>1</sup>, C. Li<sup>3</sup> (1. China University of Petroleum (Beijing); 2. Hekou Oil Production Plant, Sinopec Shengli Oilfield Company, Dongying, Shandong, China.; 3. University of Texas at Austin)
- Station F: **Semi-supervised physics-constrained ResUNet for Elastic Parameter Inversion** | y. liu\* (China University of Petroleum (East China))
- Station G: **A robust Q-Least-Squares Reverse Time Migration based on Correntropy and Deblurring Filters** | S. E. da Silva, M. D. Gadelha\*, T. Câmara, L. Silveira, S. Xavier de Souza, T. Barros (Universidade Federal do Rio Grande do Norte)
- Station H: **A novel tau model-based approach for lithofacies prediction** | J. Li\*, Y. Chen, C. Liu, D. Zhou, H. Hu (Sinopec Geophysical Research Institute Co., Ltd.)





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## Wednesday, 19 August

### DAS P4 Modeling and Acquisition

10:20 AM - 12:00 PM

*Session Chairs: Frantisek Stanek and Aleksei Titov*

**Location: Poster Location 4 (on the 3rd level)**

- Station E: **Microseismic monitoring with DAS: performance modeling** | Y. Yao<sup>1\*</sup>, D. Anikiev<sup>3</sup>, O. Kalinichenko<sup>2</sup>, L. Eisner<sup>2</sup>, M. Mityska<sup>4</sup>, Y. Wang<sup>1</sup> (1. Institute of Geology and Geophysics, Chinese Academy of Science; 2. Seismik s.r.o.; 3. Center for Integrative Petroleum Research, King Fahd University of Petroleum and Minerals; 4. Ministry of the Environment of the Czech Republic)
- Station F: **Life of field optimization through multidisciplinary distributed fiber optic sensing** | I. Lim Chen Ning\* (Chevron U.S.A. Inc.)
- Station G: **Toward Real-Time Decision-Making for Optimal SNR in 3D VSP DAS Acquisition: Impact of Gauge Length on Signal Quality** | G. Michaud<sup>1\*</sup>, T. Le Du<sup>1</sup>, A. Stanbridge<sup>1</sup>, A. Constantinou<sup>1</sup>, A. Hartog<sup>1</sup>, B. Harvey<sup>2</sup>, J. Haataja<sup>2</sup>, I. Lim Chen Ning<sup>2</sup> (1. Fosina; 2. Chevron U.S.A. Inc.)
- Station H: **Automated DAS data quality assessment with machine learning** | J. Yin\*, T. Mizuno, A. Katayama, J. Le Calvez (SLB)

### DMLA P6 Seismic Inversion with Machine Learning

10:20 AM - 12:00 PM

*Session Chairs: Jie Qi and Guangchi Xing*

**Location: Poster Location 1 (in the Exhibit Hall)**

- Station E: **A dataset effectiveness metric for predicting semi-supervised seismic inversion accuracy** | X. Zhang\*, J. Geng (Tongji University)
- Station F: **Seismic-driven drilling risk prediction and well placement optimization in a structurally complex field** | T. Eliva<sup>1</sup>, L. Ismayilova<sup>3</sup>, O. Mammadov<sup>5\*</sup>, E. Roman<sup>4</sup>, N. Kuramshina<sup>3</sup>, O. Mustafayev<sup>2</sup>, R. Malikov<sup>1</sup> (1. WAVERITY; 2. GL LTD; 3. GL Group; 4. GLTS; 5. Baku State University)
- Station G: **Pipeline for Using Machine Learning and Physics-based Modeling for Rapid 3D Seismic Inversion and Optimization of Geophone Array Configurations** | D. Cardenas\*, W. Welch, J. Heylman (Synthetik Applied Technologies)
- Station H: **Hybrid Quantum Transformer Based Seismic Impedance Inversion** | V. C. Dodda<sup>1\*</sup>, G. Jammula<sup>1</sup>, L. Kuruguntla<sup>3</sup>, M. Sen<sup>2</sup> (1. Amrita Vishwa Vidyapeetham; 2. The University of Texas at Austin; 3. Koneru Lakshmaiah Educational Foundation)

### DMLA P7 Artificial Intelligence-Driven Lithology and Geochemical Characterization

10:20 AM - 12:00 PM

*Session Chairs: Anurag Bihani and James Cassanelli*

**Location: Poster Location 2 (in the Exhibit Hall)**

- Station E: **A Unified U-Former for Lithology Prediction: From Well-Log Interpretation to Seismic Lithology Volume with Uncertainty Quantification** | B. Wang\* (China United Coalbed Methane Corporation Ltd.)
- Station F: **Exploring brine geochemistry with the U.S. Geological Survey National Produced Waters Geochemical Database**

| K. Knierim\*, A. Masterson, C. Doolan, E. Moore, J. Ray, B. McDevitt, A. Herzberg, J. Chenault, A. Jubb (U.S. Geological Survey)

- Station G: **Geochemical Signatures of Preservation: An Integrated Inorganic-Organic Framework** | K. Alelg\*, A. Azzouni, A. Alnahwi (Saudi Aramco)
- Station H: **Random Forest classification of California oils using molecular marker ratios** | K. A. Bennett\*, J. Curiale, T. B. Malloy, J. Radovic (University of Houston)

### FWI P1 Deep Learning

10:20 AM - 12:00 PM

*Session Chairs: Guo-Xin Chen and Yongbo Zhai*

**Location: Poster Location 3 (in the Exhibit Hall)**

- Station E: **Diffusion-regularized neural operators for elastic velocity model building** | L. Ren<sup>1\*</sup>, X. Ma<sup>2</sup>, Q. Du<sup>1</sup>, T. Alkhalifah<sup>2</sup> (1. China University of Petroleum (East China); 2. KAUST)
- Station F: **Improved deep-learning-matching full waveform inversion on the Viking Graben dataset** | S. Swaminadhan\*, S. Fomel, C. Li, Y. Chen (The University of Texas at Austin)
- Station G: **Full waveform inversion with Max-Pooling-based approximate envelope** | X. Mu\*, O. Saad, T. Alkhalifah (King Abdullah University of Science and Technology)
- Station H: **Bridging the acoustic-elastic gap in seismic inversion via robust summary statistics** | Z. Deng\*, A. Gahlot, S. Zeng, F. J. Herrmann (Georgia Institute of Technology)

### FWI P2 Diffusion Models

10:20 AM - 12:00 PM

*Session Chairs: Weiping Cao and Soumya Roy*

**Location: Poster Location 4 (in the Exhibit Hall)**

- Station E: **Geologically guided full waveform inversion via diffusion model based adaptive regularization** | C. Li\*, Y. Chen (The University of Texas at Austin)
- Station F: **Diffusion model enhanced velocity model building using a neural operator** | X. Ma\*, T. Alkhalifah (KAUST)
- Station G: **Unifying seismic forward and inverse operators with a joint guided diffusion model** | S. Cheng\*, T. Alkhalifah (King Abdullah University of Science and Technology)
- Station H: **Enhanced multiscale FWI with guided diffusion sampling** | M. Khatami\*, T. Alkhalifah (King Abdullah University of Science and Technology)

### FWI P3 Imaging and Workflow Design

10:20 AM - 12:00 PM

*Session Chairs: Esteban Diaz and Yu-Tai Wu*

**Location: Poster Location 5 (in the Exhibit Hall)**

- Station E: **Imaging Uplift Beneath Complex Near-Surface Overburden Using Q-based Imaging Workflow** | A. Moschouris<sup>1</sup>, E. Polyakova<sup>1</sup>, V. Zhelanov<sup>1</sup>, B. Caselitz<sup>1</sup>, V. Marian<sup>2</sup>, D. Vlad<sup>2</sup>, J. Brittan<sup>3\*</sup> (1. TGS; 2. Black Sea Oil & Gas SA; 3. TGS (Non-Author))
- Station F: **Full Waveform Inversion with True Amplitude Angle Gather** | Y. Wang\*, G. Shan, L. Dickson, X. Wang, P. Shen, J. Chen (Chevron)
- Station G: **Optimizing FWI imaging via probabilistic wavenumber**



# Poster Sessions

\*Denotes presenter.

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Wednesday, 19 August

**sampling** | J. A. Acedo\*, A. I. Quiaro, W. Zhang, M. D. Sacchi (University of Alberta)

Station H: **Joint Full Waveform Inversion Using Primaries and Multiples** | B. Zhao<sup>1\*</sup>, Z. Li<sup>1</sup>, Z. Yu<sup>1</sup>, S. Peng<sup>2</sup> (1. China University of Petroleum; 2. Tianjin Branch Company, Bohai Oilfield Research Institute)

## FWI P4 Neural Inversion Frameworks

10:20 AM - 12:00 PM

*Session Chairs: Weihong Fei and Aravind Nangarla*

**Location: Poster Location 6 (in the Exhibit Hall)**

Station E: **Agentic AI-Based Multi-Band Full Waveform Inversion via Consistency-Guided Fusion** | J. Ali\*, W. K. Mohanty, S. Sarkar (Indian Institute of Technology Kharagpur)

Station F: **Stabilizing neural operator waveform inversion by latent-space optimization and invertible blocks** | M. H. Taufik\*, S. Cheng, T. Alkhalifah (King Abdullah University of Science and Technology)

Station G: **Multiparameter elastic FWI using implicit neural representations** | S. Berti<sup>2</sup>, J. Panizzardi<sup>1\*</sup>, N. Bienati<sup>1</sup> (1. Eni; 2. University of Pisa)

Station H: **AI-Assisted Wavefield Traveltime Inversion Using a 3D U-Net Architecture** | Y. Kim<sup>1\*</sup>, Y. Liu<sup>2</sup>, M. Dmitriev<sup>1</sup>, H. Salim<sup>1</sup> (1. Saudi Aramco; 2. Aramco Research Center - Beijing, Aramco Asia)

## INT P4 Fault Detection Methods

10:20 AM - 12:00 PM

*Session Chairs: Pablo Cervantes and Jacob Violet*

**Location: Poster Location 2 (on the 3rd level)**

Station E: **A Unified Multi-Attribute Discontinuity Framework for Simultaneous Structural and Stratigraphic Interpretation** | R. Negrete\* (Harbour Energy)

Station F: **A two-stage deep learning framework for seismic fault detection** | J. Ma\*, Y. Liu (China University of Petroleum (Beijing))

Station G: **Interpretation in reverse: from amplitude-first to context-first interpretation** | S. Salamoff\* (Bluware, Inc.)

Station H: **Application of Depth Domain Structural Attribute Analysis in Small Fault Identification of Shale Reservoirs** | H. Li\*, Q. Su, J. Gao, J. Gui (Research Institute of Petroleum Exploration & Development-Northwest (NWGI), PetroChina)

## NS P2 Inversion of Near Surface Data

10:20 AM - 12:00 PM

*Session Chairs: Weiyu Guo and Giacomo Roncoroni*

**Location: Poster Location 7 (in the Exhibit Hall)**

Station E: **Quantifying conceptual uncertainty in surface-wave inversion using trans-conceptual Bayesian inference** | J. Li\*, I. Sanchez, K. Innanen (University of Calgary)

Station F: **The application of surface wave inversion in the survey of near-surface structures in the Sichuan Basin** | Y. Li\*, S. Hu, X. Wang, Z. Wu, W. He, B. Yuan, Y. Yao (BGP, CNPC)

Station G: **Application of Simultaneous Joint Inversion by Refraction and Surface Wave in Kuwait** | S. Chen\* (BGP)

Station H: **When stability misleads: data-supported vs sensitivity-limited features in ERT inversion** | M. Zhang\* (DMT Geosciences Ltd.)

## RCM P4 Carbonates Reservoir Characterization

10:20 AM - 12:00 PM

*Session Chairs: Philipp Tesch and Nicholas Whitcomb*

**Location: Poster Location 3 (on the 3rd level)**

Station E: **Diagenesis dominated high permeability streak modeling integrated with seismic data and PLT data for waterflooding optimization in Middle East carbonates** | T. Zichang\*, C. Xin, L. Qiang, L. Jiajia, L. Yanjing, X. Yaliang, A. Fuli, X. Dengyi, L. Lu, W. bo, Y. Dayou, L. Caiqin (BGP, CNPC)

Station F: **Integrated Stratigraphic, Structural, and Petrographic Study of the Upper Cretaceous Abu Roash D Carbonate Reservoir, Northern Western Desert, Egypt** | A. M. Noureldin\* (Cairo University)

Station G: **Hierarchical Facies Modeling of Reef-Shoal Carbonate Reservoirs Assisted by Process-Based Simulation and Multipoint Statistics** | M. Tian<sup>1</sup>, Y. Huang<sup>1</sup>, S. Verma<sup>2\*</sup>, H. Pan<sup>3</sup> (1. SINOPEC Petroleum Exploration and Production Research Institute; 2. AxiaGeo; 3. Yangtze University)

Station H: **Research on Seismic Response Characteristics of Carbonate Fracture-Cavity Reservoirs Based on Forward Modeling** | T. Yin\*, Q. Qi, B. Zhu, L. Yang, S. Yang (SINOPEC Geophysical Research Institute)

## SILIC P1 Siliciclastic Characterization: Applications from Field Based Studies

10:20 AM - 12:00 PM

*Session Chairs: Corey Moss and Kathryn Sementelli*

**Location: Poster Location 1 (on the 3rd level)**

Station E: **Anoxic episodes of the Silurian Period: insights from the Qusaiba Member, Saudi Arabia** | D. Alabbas\*, S. Tofaif, H. Algheryafi, N. Bin Shihah (Aramco)

Station F: **Facies Architecture, Depositional Evolution, And Reservoir Characterization of Miocene-Pliocene Deep-Water Channel Complexes, Offshore Mahanadi Basin, India** | N. Gungor\*, M. Castele, D. Hume, R. Stewart (University of Houston)

Station G: **Characterization of reservoir heterogeneity in turbiditic sands: a semi-automated stratigraphic and multi-attribute approach in a deepwater canyon, eastern Brazilian Margin** | S. M. Fernandes Gaion<sup>2</sup>, E. C. Santos<sup>1\*</sup>, M. V. Alves<sup>1</sup>, S. Aurelio<sup>1</sup>, N. O. Santos<sup>1</sup>, M. G. Lowsby<sup>2</sup> (1. Eliis; 2. Petrobras)

Station H: **Comparison of wave and tide compound delta clinoforms in the outcrops of the Book Cliffs, Utah and Colorado, USA** | C. Olariu\* (The University of Texas at Austin)

## DMLA P8 Seismic Processing 2

1:20 PM - 3:00 PM

*Session Chairs: Shijun Cheng and Huseyin Tuna Erdinc*

**Location: Poster Location 1 (in the Exhibit Hall)**

Station A: **Mitigating overfitting in seismic DIP denoising: A baseline study on dynamic structural early stopping** | A. Z. Shafik<sup>1</sup>, Y. Li<sup>2\*</sup>, A. Cheng<sup>3</sup>, Z. Fang<sup>4</sup> (1. Mansoura University, Faculty



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## Wednesday, 19 August

of Science; 2. Purdue University; 3. The Chinese University of Hong Kong; 4. University of Electronic Science and Technology of China)

Station B: **3D spatio-temporal flexible demultiple with deep learning** | M. R. Fernandez<sup>1\*</sup>, N. Ettrich<sup>1</sup>, M. Delescluse<sup>2</sup>, J. Keuper<sup>3</sup> (1. Fraunhofer ITWM; 2. Ecole Normale Supérieure; 3. Offenburg University)

Station C: **Parallel Residual-Transformer GAN for Seismic Random Noise Attenuation** | W. Wang\*, W. Wang, J. Gao, D. Chang, S. Qi (Research Institute of Petroleum Exploration and Development-Northwest, PetroChina)

Station D: **Learnable Directional Decomposition Multi-Scale Attention Network for Ground-Roll Attenuation** | W. Wang\*, W. Wang, J. Gao, D. Chang, S. Qi (Research Institute of Petroleum Exploration and Development-Northwest, PetroChina)

### FWI P5 Objective Functions and Regularization

1:20 PM - 3:00 PM

*Session Chairs: Kaihang Guo and Junxiao Li*

**Location: Poster Location 7 (in the Exhibit Hall)**

Station A: **Reflection traveltimes shift estimation using template matching with characteristic reflector** | C. Wu<sup>1\*</sup>, H. Wang<sup>2</sup>, B. Feng<sup>2</sup>, K. Yang<sup>2</sup>, S. Shen<sup>3</sup>, R. Xu<sup>3</sup>, J. Wang<sup>1</sup>, J. Yan<sup>1</sup> (1. Shanghai Ocean University; 2. Tongji University; 3. Shanghai Institute of Technical Physics, Chinese Academy of Sciences)

Station B: **Structure-Guided Directional High-Order Regularization for Full-Waveform Inversion** | Z. Zhou<sup>1\*</sup>, G. Liu<sup>1</sup>, C. Li<sup>2</sup>, Q. Wu<sup>1</sup>, J. Shen<sup>1</sup>, J. Sun<sup>1</sup>, Q. Ban<sup>1</sup> (1. China University of Petroleum (Beijing); 2. University of Texas at Austin)

Station C: **How to Obtain the Necessary Low Frequencies and a Well-Matched Wavelets for Onshore FWI** | W. Liu\*, Y. Liu, Y. Diao, G. Li, Y. Zhu, J. Du, H. Feng, J. Ou (BGP)

Station D: **Two-Stage Elastic Full-Waveform Inversion of 3D Seismic Land Data Using Local Cross-Correlation** | Y. Kim<sup>1\*</sup>, M. Dmitriev<sup>1</sup>, H. Liang<sup>2</sup>, H. Salim<sup>1</sup> (1. Saudi Aramco; 2. Aramco Americas)

### INT P5 Fractures and Reservoir Geology

1:20 PM - 3:00 PM

*Session Chairs: Naveen Gupta and Chen Liang*

**Location: Poster Location 2 (on the 3rd level)**

Station A: **Prediction methods for multi-scale fractures in paleokarst underground rivers** | H. Lv\*, C. Zhang, Y. Gu, Z. Sun (Sinopec Geophysical Research Institute Co., Ltd)

Station B: **Separation analysis of large-scale fracture-cavity reservoirs** | J. Yang\*, L. Xiong, L. Yin (Sinopec Geophysical Research Institute Co.)

Station C: **Seismic Characterization and Outcrop Analog Analysis of Large-Scale Carbonate Platform-Margin Collapse: Insights from Tarim Basin, China** | R. Xiong\*, Y. Zhang, J. Zheng (PetroChina Hangzhou Research Institute of Geology)

Station D: **Microseismic evidence for contrasting fracture propagation mechanisms and differentiated stimulation strategies in deep shale gas, Sichuan Basin, China** | X. Wang\*, H. Zhong (Chengdu Weidong Technology Co., Ltd)

### INT P6 Geohazards and Energy Transition

1:20 PM - 3:00 PM

*Session Chairs: Eldar Guliyev and Fawz Naim*

**Location: Poster Location 3 (on the 3rd level)**

Station A: **Resolving subtle structural relief with ultra-dense 3D seismic for hydrogen storage at the Devine site** | A. Titova<sup>1\*</sup>, A. Bakulin<sup>1</sup>, C. Schuba<sup>1</sup>, I. Silvestrov<sup>2</sup> (1. Bureau of Economic Geology, University of Texas at Austin; 2. Professional Geo Solutions Kazakhstan)

Station B: **Geophysical characterization of subsurface hazards in offshore wind farm sites using seismic attributes and machine learning** | D. Mansourian\*, H. Bedle (University of Oklahoma)

Station C: **A Probability Volume Zoning-Constrained Facies Modeling Method for Natural Gas Hydrates Based on Well-Seismic Joint GBDT algorithm** | Z. Lei<sup>1\*</sup>, Y. Liu<sup>1</sup>, W. Zhang<sup>1</sup>, F. Ruan<sup>2</sup> (1. Sinopec Petroleum Exploration and Production Research Institute; 2. SLB)

Station D: **Natural gas hydrate in the Gulf of America: Exploration and shallow hazard risks** | A. E. Cook<sup>1\*</sup>, H. Daigle<sup>2</sup>, B. Kiel Reece<sup>3</sup>, A. Kumar<sup>1</sup> (1. Ohio State University; 2. University of Texas at Austin; 3. University of South Alabama)

### INT P7 Interpretation Machine Learning

1:20 PM - 3:00 PM

*Session Chairs: Ramses Meza and Derek Unger*

**Location: Poster Location 4 (on the 3rd level)**

Station A: **Automated geofeature discovery** | A. Katole, H. Maniar, R. Chhibber, W. Hu\*, A. Abubakar (SLB)

Station B: **An interpreter's workflow to reduce subjectivity in Principal Component Analysis (PCA)-based attribute selection for unsupervised Machine Learning (ML) seismic facies analysis** | D. Lubo-Robles\*, H. Bedle, K. Marfurt (The University of Oklahoma)

Station C: **Assessing Calibration and Entropy-Based Uncertainty in Machine Learning Predictive Geological Mapping Using Airborne Gamma-Ray Data** | R. Pires de Lima<sup>1\*</sup>, A. B. da Silva<sup>2</sup>, M. Pierson<sup>1</sup> (1. VerAI Discoveries; 2. Geological Survey of Brazil)

Station D: **Sedimentary Process Simulation-Driven Deep Learning for Geological Modeling: A Case Study from the Puguang Carbonate Gas Reservoir, Sichuan Basin, China** | Y. Liu<sup>2\*</sup>, Z. Lei<sup>2</sup>, Y. Huang<sup>2</sup>, W. Zhang<sup>2</sup>, F. Ruan<sup>1</sup> (1. SLB; 2. Sinopec Petroleum Exploration and Production Research Institute)

### INT P8 Emerging Methods

1:20 PM - 3:00 PM

*Session Chairs: Hai Nguyen and Alecia Wawrzynski*

**Location: Poster Location 5 (on the 3rd level)**

Station A: **Exploratory analysis of Distance-Quadrant (DQ) attribute responses through comparison with seismic inversion and well logs** | V. Tellez\* (University of Oklahoma)

Station B: **CT Super-Resolution for Oil Sands Mesotstructure Characterization** | J. Li<sup>1\*</sup>, H. Pang<sup>2</sup>, Q. Han<sup>1</sup>, C. Qin<sup>1</sup> (1. China University of Petroleum (Beijing); 2. )

# Poster Sessions

\*Denotes presenter.

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Wednesday, 19 August

- Resource Geophysics Academy, Imperial College London)
- Station C: **Research on time-depth dual-domain horizon mapping method based on dynamic image warping** | Y. Chen<sup>1</sup>, H. Liu<sup>2</sup>, Z. Han<sup>3</sup>, Q. Wang<sup>3</sup>, X. Li<sup>4</sup>, M. Ren<sup>4</sup>, J. Yang<sup>5\*</sup> (1. Shengli Oilfield Branch Company, SINOPEC; 2. CNOOC; 3. Geophysical Research Institute of Shengli Oilfield; 4. School of GeoScience and Technology, Southwest Petroleum University; 5. Southwest Petroleum University (Non-Author))
- Station D: **Application research of dual-exponential quantitative evaluation system based on 3d seismic data in horizontal well fracturing design** | J. Zheng\*, G. Chen, Y. Meng, B. Han, X. Zang, S. Wang, L. Song (BGP, CNPC)

## MME P1 Advance Modeling for Mineral Exploration

1:20 PM - 3:00 PM

Session Chairs: Lia Martinez and Jiajia Sun

Location: Poster Location 1 (on the 3rd level)

- Station A: **Integrated hyperspectral and aeromagnetic analysis of structural controls on hydrothermal alteration in the Jabal Hamra region, Arabian Shield, Saudi Arabia** | S. Alabbasi<sup>1\*</sup>, S. D. Khan<sup>1</sup>, N. Almunshry<sup>2</sup> (1. University of Houston; 2. King Abdulaziz University)
- Station B: **Bayesian Gravity Inversion for Stratigraphic Geometry Using Fourier Parameterization and Stein Variational Inference** | Z. Zhang<sup>2\*</sup>, X. Wei<sup>1</sup>, J. Sun<sup>2</sup>, Y. Huang<sup>2</sup>, J. Chen<sup>2</sup> (1. University of British Columbia; 2. University of Houston)
- Station C: **Magnetic data in joint analysis with radiometric data in Hicks Dome, Illinois** | A. Kadyanto\* (Colorado School of Mines)
- Station D: **Coupled Hydro-Mechanical Modeling of Excavation- and Seepage-Driven Deformation in Underground Mine Drifts** | M. Mudhina, D. Ning\* (Michigan Technological University)

## NS P3 Innovations in Near Surface Imaging

1:20 PM - 3:00 PM

Session Chairs: Saleh Al Nasser and Ted Stieglitz

Location: Poster Location 7 (on the 3rd level)

- Station A: **Edge-defined Radiometric Indices for Detecting Near-Surface Alteration in Natural Hydrogen Systems** | J. Weihermann, M. Zhang\*, Y. Li (Colorado School of Mines)
- Station B: **Quantitative identification of near-source scattering noise using energy ratio and spatial coherence** | X. Dong\*, B. Liu, G. Zhao (Sinopec Geophysical Corporation R&D Center)
- Station C: **3D Wave-Mode Separation for Elastic Time-Reverse Imaging** | M. Pels\*, J. C. Shragge, A. Girard (Colorado School of Mines)
- Station D: **A Modified Scheme of Wavepath Migration for Refraction Wavefield** | Y. Zhou, S. Hanafy\* (King Fahd University of Petroleum and Minerals)

## RP P1 New Developments

1:20 PM - 3:00 PM

Session Chairs: Hannah Proffitt and Mandy Schindler

Location: Poster Location 2 (in the Exhibit Hall)

- Station A: **Frequency-Dependent Seismic Modeling and Deep-Learning Inversion for CO2 Storage Monitoring** | Q. A. Bu khamseen<sup>1\*</sup>, M. Chapman<sup>2</sup>, G. Papageorgiou<sup>3</sup> (1. Saudi Aramco; 2. University of Edinburgh; 3. Mantis Geophysics)
- Station B: **Direct calculation of elastic wave velocity from voxel values in raw grayscale CT images** | X. Wang\*, D. Cao, Q. Liu (China University of Petroleum (East china))
- Station C: **Variational Autoencoder-Based Rock Physics Modeling for Linking Elastic Properties Under Physical Constraints** | F. Jiang\*, T. Dutta, K. Osyrov (Halliburton)
- Station D: **Improved empirical relationships between magnetic susceptibility and serpentinization** | C. M. Thomas\*, M. Zhang, Y. Li (Colorado School of Mines)

## RP P2 Measurement and Modeling

1:20 PM - 3:00 PM

Session Chairs: Teng Long and Cucha Lopez

Location: Poster Location 3 (in the Exhibit Hall)

- Station A: **Rock Physics Measurement, Modeling and Application of Velocity Anisotropy in Gulong Shale: A Case Study of the Qingshankou Formation, Songliao Basin** | M. Yang\* (BGP, CNPC)
- Station B: **Effect of Compaction on Anisotropy of Inorganic Shales** | U. Durmus\*, N. Mondol (University of Oslo)
- Station C: **Changes of elastic wave velocities with pore structure in ultra-deep carbonate reservoirs under coupled temperature-pressure variations** | Z. Ma, T. Liu, J. Liu\*, T. Chen (Sinopec Petroleum Exploration and Production Research Institute)
- Station D: **Novel Density Difference Porosimetry accounts for the ultra-high EUR or OGIP in southwest Marcellus** | S. Wu<sup>1\*</sup>, A. Sneddon<sup>2</sup>, E. Roper<sup>2</sup> (1. Power Energy and Environmental Research Institute; 2. MCWL PALADIN)

## RP P3 Applications

1:20 PM - 3:00 PM

Session Chairs: Alan Mur and Julian Yao

Location: Poster Location 4 (in the Exhibit Hall)

- Station A: **High-Resolution Prediction Method for Ultra-Deep Tight Sandstone Pore-Fracture Dual Reservoirs** | Z. Shan, L. Chao\*, P. Chen, D. Yong, C. Jia, M. Jinpeng, L. Zhenyu (BGP)
- Station B: **Intelligent pore pressure prediction for shale with rock physics constraints** | X. Liu<sup>1\*</sup>, J. Yu<sup>1</sup>, J. Liu<sup>3</sup>, X. Zhang<sup>2</sup>, H. Yuan<sup>1</sup> (1. China University of Geosciences Beijing; 2. RIPED, PetroChina; 3. China Oilfield Services Limited)
- Station C: **WITHDRAWN: Quantitative Assessment of Gas Hydrates in Deep-Marine Unconsolidated Sediments via Dynamic Morphology Partitioning and Acoustic-Electrical Calibration** | H. Du<sup>1\*</sup>, H. Heidari<sup>2</sup>, C. D. MacBeth<sup>2</sup>, Y. Zhang<sup>1</sup> (1. China University of Petroleum, Beijing; 2. HWU)
- Station D: **Orthorhombic rock physics modeling and application for fractured buried-hill reservoirs** | T. Cai, Z. Zhu\* (CNOOC Research Institute Co., Ltd.)





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## Wednesday, 19 August

### SP P7 Emerging Technologies: Signal Enhancement, Wavefield Separation, and S-DAS

1:20 PM - 3:00 PM

*Session Chairs: Jianyong Bai and Anjali Dixit*

**Location: Poster Location 5 (in the Exhibit Hall)**

- Station A: **Separating P- and S- waves in Land Seismic Exploration through Helmholtz Decomposition and Downward Continuation** | H. Hong\*, S. Choi, Y. Cho (Seoul National University)
- Station B: **From noisy to crisp: AI-powered seismic image enhancement for robust subsurface characterization** | S. Phan\*, A. Katole, W. Hu, A. Abubakar (SLB)
- Station C: **OVT-domain residual energy consistency correction method and application effects** | Z. Sun\*, X. Liu, W. Zhang, Y. Zhang (Sinopec Geophysical Research Institute Co., Ltd)
- Station D: **Case study: application of machine learning x-t domain dip filter for residual noise attenuation of a surface distributed acoustic sensing (S-DAS) land survey** | Y. Luo\*, R. Bachrach, C. Wilson (SLB)

### SP P8 Near Surface Processing

1:20 PM - 3:00 PM

*Session Chairs: Amour Hamdane and Maggie Jiao*

**Location: Poster Location 6 (in the Exhibit Hall)**

- Station A: **Direct-wave attenuation using dynamic time warping** | A. W. Camargo<sup>2</sup>, D. Rueda Serrano<sup>1\*</sup>, T. A. Coimbra<sup>1</sup>, J. H. Facciopieri<sup>1</sup> (1. Universidade Estadual de Campinas; 2. Cepetro/Universidade Estadual de Campinas)
- Station B: **A residual statics correction method based on sparse dictionary learning** | Z. Zhang\*, Z. Zhou, G. Liu (China University of Petroleum (Beijing))
- Station C: **Ultra-fast kinematic parameter search in irregular geometries** | N. T. Okita\*, T. A. Coimbra, J. H. Facciopieri (Universidade Estadual de Campinas)
- Station D: **AI-enabled basin-scale pseudo-3D near-surface modeling using first-arrival tomography** | L. Liu<sup>2</sup>, S. Bidikhova<sup>1\*</sup>, E. Floreani<sup>1</sup> (1. Absolute Imaging Inc; 2. PanImaging Software)

### STUD P6 New Methods, and New Insights

1:20 PM - 3:00 PM

*Session Chairs: Jose Miguel Gorosabel Araus and Zhehao Li*

**Location: Poster Location 6 (on the 3rd level)**

- Station A: **Frequency-domain Full Waveform Inversion with an Extended Helmholtz Equation** | Z. Wang<sup>1\*</sup>, H. Wang<sup>1</sup>, X. Gu<sup>1</sup>, Z. Ahmed<sup>2</sup>, Z. Fang<sup>1</sup> (1. University of Electronic Science and Technology of China; 2. Mansoura University)
- Station B: **Optimized Plane-Wave Least-Squares Reverse Time Migration via U-HRNet for High-Resolution Imaging with Low SNR Data** | Y. Ma<sup>2</sup>, Y. Huang<sup>1</sup>, Y. Liu<sup>1\*</sup>, J. Huang<sup>1</sup> (1. China University of Petroleum (East China); 2. University of Science and Technology of China (USTC))
- Station C: **Cross-site distribution mismatch in DAS microseismic detection: limitations of transfer learning** | H. Jeong<sup>1\*</sup>, Y. Cho<sup>1</sup>, B. Yoon<sup>2</sup> (1. Seoul National University; 2. Korea Institute of Geoscience and Mineral Resources)
- Station D: **Plane-Wave Least-Squares Reverse Time Migration**

**with Take-Off Angle Domain Common-Image Gathers Correction via U-Net** | Y. Huang, Y. Ma, Y. Liu\*, J. Huang (China University of Petroleum (East China))

### ACQ P1 Marine and Ocean Bottom Nodes

3:40 PM - 5:20 PM

*Session Chairs: Valeriy Brytik and Dalila Cherief*

**Location: Poster Location 3 (on the 3rd level)**

- Station E: **Joint acoustic and first break positioning inversion for OBN in shallow water area** | R. Lei\*, Z. Xu, X. Wei, Z. Liu, H. Du, X. Huang, J. Gao (BGP, CNPC)
- Station F: **Practical solutions for large single-element sources** | G. Nash\*, M. Bekara, H. Tabti, A. Vatn, H. Flores, M. Oscarsson-Nagel, M. Cvetkovic, M. Widmaier (TGS)
- Station G: **Embracing the power of UHR3D for shallow hazard site surveys for offshore drilling and construction** | S. Halder\*, K. Brandsegg, A. McKay, G. Myhr (TGS)
- Station H: **Hybrid streamer-OBN acquisition design in complex marine areas** | Y. Yaxuan\* (BGP, CNPC)

### ACQ P2 Land Seismic Methods

3:40 PM - 5:20 PM

*Session Chairs: Zachary Lawrence and Chris Tapie*

**Location: Poster Location 4 (on the 3rd level)**

- Station E: **Design of low-frequency harmonic suppression sweep signal for vibroseis based on ground force signal** | X. Leiliang<sup>2</sup>, J. Zhang<sup>1\*</sup>, Z. Guoyong<sup>1</sup>, X. Shuxue<sup>1</sup> (1. Sinopec; 2. Ocean University of China)
- Station F: **Applications of geophysical exploration methods to gravitational wave detection** | R. L. Abma\* (University of Texas at Austin)
- Station G: **Classification method for complex near-surface facies in front of the longmen mountains** | W. Duan\* (Geophysical Exploration)
- Station H: **Evaluation of land source directivity from a novel shaped explosive** | S. Contenti<sup>1\*</sup>, M. Hons<sup>2</sup> (1. Imperial Oil Resources Ltd.; 2. Illiance Solutions)

### ACQ P3 Acquisition Modeling and Optimization

3:40 PM - 5:20 PM

*Session Chairs: David Monk and Shashin Sharan*

**Location: Poster Location 5 (on the 3rd level)**

- Station E: **Deep reinforcement learning for the optimization of seismic acquisition in target-oriented imaging** | W. Zhang\*, M. D. Sacchi (University of Alberta)
- Station F: **Wavefield forward modelling for seismic acquisition with distributed helical fiber-optic cables** | J. Zhu\*, B. Liu, J. Wang, J. Zhu (Sinopec Geophysical Corporation)
- Station G: **Joint optimization of sparse sampling and vehicle routing for cost-effective vibroseis acquisition** | Y. Guo<sup>1\*</sup>, S. Fu<sup>1</sup>, R. Lin<sup>2</sup>, Z. Wang<sup>2</sup> (1. Harbin Engineering University; 2. Harbin Institute of Technology)
- Station H: **Quantitative Optimization of Wide-Azimuth High-Density Seismic Acquisition for Imaging Beneath Thick Loess Cover** | W. Zhang<sup>1</sup>, X. Dong<sup>1\*</sup>, X. Li<sup>2</sup>, B. Liu<sup>1</sup>, C. Yang<sup>2</sup>, G. Zhao<sup>1</sup> (1. SINOPEC Geophysical Corporation; 2. SINOPEC North China E&P Company)

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\*Denotes presenter.

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Wednesday, 19 August

## ACQ P4 Land Hardware

3:40 PM - 5:20 PM

Session Chairs: Robert Bodziak and Frank Janiszewski

Location: Poster Location 6 (on the 3rd level)

- Station E: **A custom low-power wireless mesh networking scheme for land nodal acquisition system** | Z. Gan\*, Y. Xia, Y. Liu, W. Liu, Y. Wei (BGP)
- Station F: **Tests of optimized phase arrays on several diverse datasets** | C. Stork\* (Land Seismic Noise Specialists)
- Station G: **Prospects of UAV precision deployment for nodes in seismic data acquisition** | W. Wang\* (BGP)
- Station H: **Development and test of green gas impulse seismic source** | J. Wang\*, G. Yang, W. Dang, H. Li, X. Zhang, L. Huang, Y. Bai, L. Zhao (BGP, CNPC)

## ACQ P5 Case Study

3:40 PM - 5:20 PM

Session Chairs: Milos Cvetkovic and Derek Unger

Location: Poster Location 7 (on the 3rd level)

- Station E: **Comparing Enhanced Frequency and Conventional Seismic Sources Offshore Angola** | S. Baldock\*, M. Widmaier, A. Misra, H. Tabti, L. Cramer, H. Shabaan, M. Cvetkovic (TGS)
- Station F: **Reduction Impact in Acquisition Parameters on 3D Seismic Imaging and Quantitative Characterization: A Case Study from the Middle Magdalena Valley Basin, Colombia** | E. Guzman\*, D. Rodriguez (Ecopetrol S.A.)
- Station G: **Research and application of high-precision positioning software for geophysical exploration outdoor operations** | Z. Li<sup>1</sup>, Y. Wang<sup>2\*</sup>, B. Li<sup>2</sup>, S. Xia<sup>2</sup>, Q. He<sup>2</sup> (1. China University of Petroleum; 2. Sinopec)
- Station H: **Optimal migration aperture for compact ultra-dense land surveys: Insights from field data** | A. Titova<sup>1\*</sup>, A. Bakulin<sup>1</sup>, I. Silvestrov<sup>2</sup> (1. Bureau of Economic Geology, University of Texas at Austin; 2. Professional Geo Solutions Kazakhstan)

## DMLA P9 Novel Concepts for Seismic Interpretation

3:40 PM - 5:20 PM

Session Chairs: Venkatesh Anantharamu and Son Phan

Location: Poster Location 1 (in the Exhibit Hall)

- Station E: **Understanding Seismic Attention: How Seismic Features are Attended in Transformer Models** | M. T. Alotaibi\*, G. AlRegib (Georgia Institute of Technology)
- Station F: **Toward a Synthetic Foundation Model for Seismic Interpretation Using Forward-Modeled Seismic Data** | Q. Zhou\*, M. M. Morales, M. Prodanović, M. Pycz (The University of Texas at Austin)
- Station G: **A joint identification method for horizon and fault based on fine-tuning of the DINOv3 visual foundation model** | Z. Peng, D. Cao\* (China University of Petroleum (East China))
- Station H: **Beyond predictive accuracy: Mechanistic interpretability of 2D convolutional and transformer architectures for resilient seismic fault detection** | A. Bihani\*, S. Manikani (SLB)

## DMLA P10 Seismic Interpretation 2

3:40 PM - 5:20 PM

Session Chairs: Olga Brusova and Atul Katole

Location: Poster Location 2 (in the Exhibit Hall)

- Station E: **StrataFlux: A Local, Invertible Attribute for Relative Geologic Time Estimation from Seismic Data** | S. T. Mensah\*, S. Fomel (University of Texas at Austin)
- Station F: **Toward accurate fault segmentation: An improved U-Net architecture and training strategy** | W. Liu<sup>1\*</sup>, L. Azevedo<sup>2</sup>, N. Akram<sup>2</sup>, C. Zhang<sup>1</sup>, Z. Liao<sup>1</sup> (1. China University of Petroleum (Beijing); 2. University of Lisbon)
- Station G: **AI-Assisted 3D Seismic Fault Detection Using Convolutional Neural Networks** | Y. Bashir<sup>1</sup>, D. Yüksel<sup>1</sup>, B. Akin<sup>1</sup>, D. Gezer<sup>1</sup>, M. Ehsan<sup>2</sup>, M. Khan<sup>3</sup>, S. Ali<sup>4</sup>, Z. Arshad<sup>5\*</sup> (1. Istanbul Technical University; 2. Bahria University; 3. Saudi Aramco; 4. University of Sargodha; 5. University of Houston (Non-Author))
- Station H: **Enhancing fault detection models with graph attention networks for global data utilization** | C. Zhou\*, H. Cai, X. Yao, G. Hu (University of Electronic Science and Technology of China)

## FWI P6 Distributed Acoustic Sensing and Near Surface

3:40 PM - 5:20 PM

Session Chairs: Ameer Hamdane and Yi Tao

Location: Poster Location 5 (in the Exhibit Hall)

- Station E: **Early Arrival Waveform Inversion of Shear Waves Based on 3C Seismograms** | Y. Zhou, W. Zhou, S. Hanafy\*, A. Al-Shuhail (King Fahd University of Petroleum and Minerals)
- Station F: **Strain-based full waveform inversion with automatic differentiation for distributed acoustic sensing** | M. Tran\*, J. Li (University of Houston)
- Station G: **Visco-Acoustic FWI Applied to a Novel CASSM-DAS Field Dataset** | J. W. Saftner<sup>1\*</sup>, V. Sobolevskaya<sup>2</sup>, J. Ajo-Franklin<sup>2</sup>, T. Zhu<sup>1</sup> (1. Pennsylvania State University; 2. RICE)
- Station H: **Improving 3D Site Characterization Velocity Models with High Frequency FWI** | L. Limonta<sup>1</sup>, B. Caselitz<sup>1</sup>, R. Ruiz<sup>1</sup>, J. Oukili<sup>1</sup>, S. Halder<sup>2\*</sup> (1. TGS; 2. TGS (Non-Author))

## LAC P2 Latin America Offshore

3:40 PM - 5:20 PM

Session Chairs: Jose De Vera and Leonardo Molinari

Location: Poster Location 1 (on the 3rd level)

- Station E: **Predicting the Charge Fairway as a Function of Source Rock UEP and Thermal Stress in the Guyana-Suriname Basin** | K. Shipper<sup>1\*</sup>, P. Mann<sup>1</sup>, A. Pepper<sup>2</sup> (1. University of Houston; 2. ThisIsPetroleumSystem)
- Station F: **Multidimensional integrated workflow for the evaluation of clastic reservoir quality at the basin-scale: An example from the Upper Cretaceous interval of the Suriname-Guyana Basin** | A. McGlannan\*, S. Tenepalli, A. Forge, C. Ribes, C. Roumeas (TotalEnergies)
- Station G: **Controls on source rock quality and maturity across the Ceará-Potiguar margin: Implications for deepwater exploration** | J. Gorosabel Araus<sup>1\*</sup>, P. Mann<sup>1</sup>, A. Pepper<sup>2</sup>, K. Leopoldino Oliveira<sup>3</sup>, A. Souza<sup>3</sup>, I. Cerdeira<sup>3</sup> (1. University of



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## Wednesday, 19 August

Houston; 2. ThisIsPetrolemSystem; 3. Universidade Federal do Ceará)

Station H: **A Multi-Scale Deep Learning Workflow for Improving Seismic Fault Interpretation** | K. Wong<sup>1\*</sup>, D. Howard<sup>2</sup>, M. Cluzan<sup>1</sup> (1. Eliis; 2. Staatsolie Maatschappij Suriname N.V)

### LAC P3 Mexico, Venezuela, and Andean

**3:40 PM - 5:20 PM**

*Session Chairs: Elvira Gomez and Tomas Zapata*

**Location: Poster Location 2 (on the 3rd level)**

Station E: **Accelerated global seismic interpretation and RGB mapping for deepwater sedimentary system evolution** | F. Ramirez Cuellar<sup>2</sup>, S. Treviño Garcia<sup>2</sup>, C. Veltman Zertuche<sup>1\*</sup>, C. Quijada Gil<sup>3</sup> (1. Eliis; 2. PEMEX; 3. Apogee Geomodeling)

Station F: **Integrated Artificial Intelligence and Multi-Horizon Seismic Analysis for Prospect Evaluation of Structural Traps of Situche Central Field, Peru** | C. Quevedo Nevra<sup>2</sup>, A. Quispe Muñoz<sup>2</sup>, K. Wong<sup>1</sup>, L. Giraldo<sup>1</sup>, C. Veltman Zertuche<sup>1\*</sup> (1. Eliis; 2. PeruPetro)

Station G: **Automatic Delineation of Salt Bodies Using Deep Learning Segmentation: Results from the Salina del Istmo Basin, Gulf of Mexico** | M. Rodriguez Hernandez<sup>2</sup>, C. Beristain Suarez<sup>2</sup>, S. Treviño Garcia<sup>2</sup>, R. Ramos Landeros<sup>2</sup>, C. Quijada Gil<sup>3\*</sup>, L. Robles Vazquez<sup>3</sup>, C. Veltman Zertuche<sup>1</sup> (1. Eliis; 2. Pemex; 3. Apogee Geomodeling)

Station H: **Revisiting the La Luna Formation: assessing its viability as an unconventional reservoir in the Maracaibo Basin** | A. Liborius<sup>\*</sup>, P. Philp, R. Slatt (The University of Oklahoma)

### NSF P1 Geological Hydrogen

**3:40 PM - 5:20 PM**

*Session Chairs: Yueqin Huang and Chenyu Zhou*

**Location: Poster Location 3 (in the Exhibit Hall)**

Station E: **Integrated hyperspectral imaging and geochemical evaluation of pegmatites hosting critical mineral deposits in collision zones** | A. Hussain<sup>\*</sup>, S. D. Khan (University of Houston)

Station F: **Leveraging Multi-Disciplinary Data to Unlock Natural Hydrogen Potential** | S. Elyas<sup>1\*</sup>, Y. Zayer<sup>1</sup>, C. Scheibe<sup>1</sup>, M. Yahyaoui<sup>1</sup>, O. Swientek<sup>1</sup>, N. Lababidi<sup>1</sup>, R. Goteti<sup>2</sup>, W. Yan<sup>2</sup>, P. Srinivasan<sup>2</sup> (1. Saudi Aramco; 2. Aramco Americas)

Station G: **Geochemical controls and hydrogen loss in subsurface storage: evidence from autoclave experiments** | M. Abu Alreesh<sup>\*</sup>, P. Eichhubl, D. Gajda (The University of Texas at Austin)

Station H: **Geophysical characterization of an ultramafic body in the Voi Suture Zone, SE Kenya: implications for natural hydrogen exploration** | N. A. Shariff<sup>\*</sup>, M. Zhang (Colorado School of Mines)

### NSF P2 Geothermal

**3:40 PM - 5:20 PM**

*Session Chairs: Joshua Osasona and Sumit Verma*

**Location: Poster Location 4 (in the Exhibit Hall)**

Station E: **Delineating geothermal prospects through seismic inversion and cokriging-based modeling in the Cooper-Eromanga Basin** | J. Kim<sup>2</sup>, S. Lee<sup>3</sup>, J. Lee<sup>1\*</sup>, J. Byun<sup>2</sup> (1. The University of Texas Permian Basin; 2. Hanyang University; 3. SLB)

Station F: **Magma-induced seismicity and its implications on assessing geothermal prospectivity in Western Anatolia** | G. Bozkurt<sup>\*</sup> (EGES Energy)

Station G: **Impact of Multi-Well Configurations and Fracture Patterns on Co-Production of Heat and Lithium in Geothermal Reservoirs** | J. Jafar<sup>\*</sup>, S. Bakhshian (Rice University)

### SP P9 Signal Processing, Quality Control and Field Workflows

**3:40 PM - 5:20 PM**

*Session Chairs: Merzlikin Dmitrii and Yu-Tai Wu*

**Location: Poster Location 6 (in the Exhibit Hall)**

Station E: **Reducing Turnaround Time in Frontier Basins through ML-Accelerated Preprocessing** | M. Roberts<sup>\*</sup>, L. Gabioli, O. Brusova, D. Bookes, X. Zhao, A. Valenciano (TGS)

Station F: **Attenuation of linear noise in irregular seismic data** | Y. Zhou<sup>\*</sup>, J. Yang, Y. Tao (Sinopec Geophysical Research Institute Co., Ltd)

Station G: **Practical application of efficient simultaneous-source separation for massive data in complex surface areas** | Y. Huidong<sup>\*</sup>, H. Huang, B. Wang, G. Ting, Y. Guan, F. Wang, W. Luo (BGP, CNPC)

Station H: **Estimating time shifts with the Wigner-Ville distribution** | L. d. Gurgel<sup>\*</sup>, J. M. Araujo, L. Dantas Machado, P. D. de Lima (UFRN)

### SP P10 Multiple Attenuation, Consistency and Operational Corrections

**3:40 PM - 5:20 PM**

*Session Chairs: Tong Bai and Salma Hanna*

**Location: Poster Location 7 (in the Exhibit Hall)**

Station E: **Pre-stack multiple suppression using wavelet convolution deep neural network** | J. Liu<sup>\*</sup>, F. Xie (Key Laboratory of Oil & Gas Reservoir Geophysics, Sinopec)

Station F: **Joint Demultiple with Modelled Water-Layer and Subsurface Reflectivity Model Augmented by Separated Wavefield Imaging** | E. Camarda<sup>\*</sup>, C. Ricardez, R. Huang, D. Cavalin (TGS)

Station G: **GulfNet: Large-Scale Nodal Seismic Deployment Along the Texas- Louisiana Coast** | J. Villagomez<sup>\*</sup>, Z. Zhang, J. McNease, M. Murphy, Y. Zheng (University of Houston)

Station H: **A practical workflow for low-frequency noise suppression in velocity-domain seismic data from digital nodal acquisition** | J. Lu<sup>\*</sup>, C. Cai (Sinopec Geophysical Corporation)



# Poster Sessions

\*Denotes presenter.

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Thursday, 20 August

## AAS P5 Amplitude Versus Offset

8:00 AM - 9:40 AM

Session Chairs: Adesh Pandey and Cyrille Reiser

Location: Poster Location 5 (on the 3rd level)

- Station A: **AVO attribute-driven coal suppression workflow enabling improved prestack inversion in offshore coal-bearing reservoirs** | Q. Cao<sup>1\*</sup>, J. Zhang<sup>1</sup>, J. Huang<sup>2</sup>, T. Liu<sup>2</sup>, F. Zhou<sup>2</sup>, C. Jiang<sup>2</sup> (1. China University of Petroleum (East China); 2. Sinopec Shanghai Offshore Oil & Gas Company)
- Station B: **Comparative analysis of Zoeppritz based approximations for AVO classification** | N. B. Albrrik<sup>\*</sup>, K. H. Liu (Missouri University of Science and Technology)
- Station C: **Waveform-based AVA inversion in T-X domain using recursive reflectivity method** | Y. Liu<sup>\*</sup> (Chevron)
- Station D: **A new pore fluid parameter prediction based on multi-component seismic** | H. Pan<sup>\*</sup>, D. Chang, J. Gao, J. Gui (Research Institute of Petroleum Exploration & Development-Northwest (NWGI), PetroChina)

## BH P1 Imaging and Petrophysical Interpretation

8:00 AM - 9:40 AM

Session Chairs: Vladislav Lesnikov and Michel Verliac

Location: Poster Location 4 (on the 3rd level)

- Station A: **Effect of Surface Roughness on Octadecyltrichlorosilane (ODTS) Wettability Alteration of Quartz and Calcite** | N. Paliwal<sup>\*</sup> (Kent State University)
- Station B: **Borehole Acoustic Reflection Traveltime Tomography via an Eikonal Solver and the Adjoint-State Method** | F. Xia<sup>1\*</sup>, X. Wu<sup>2</sup>, C. Li<sup>2</sup>, C. Torres-Verdin<sup>1</sup> (1. University of Texas at Austin; 2. Halliburton)
- Station C: **Karst imaging challenges with walkaway VSP data** | N. Alzamil<sup>1\*</sup>, A. Ramdani<sup>1</sup>, M. Malovichko<sup>2</sup>, K. Khemraev<sup>2</sup>, D. Sabitov<sup>2</sup>, E. Alfataierge<sup>1</sup> (1. EXPEC Advanced Research Center, Saudi Aramco; 2. Aramco Innovations)
- Station D: **Prediction of hard stringers while drilling using S-waves from PDC bits and real-time drilling data** | S. Ileri<sup>1\*</sup>, A. Pavlov<sup>1</sup>, S. Sangesland<sup>1</sup>, R. Örsvuran<sup>2</sup> (1. Norwegian University of Science and Technology; 2. Colorado School of Mines)

## DMLA P11 Digital Fieldwork and Artificial Intelligence Enabled Rock Characterization

8:00 AM - 9:40 AM

Session Chairs: Bryan McDowell and Tony Moraes

Location: Poster Location 6 (on the 3rd level)

- Station A: **Augmenting Digital Fieldwork: LLM-Enhanced Analysis of Digital Outcrop Models** | D. Hodgetts, B. Burnham<sup>\*</sup> (VRGeoscience Limited)
- Station B: **Integrated Machine Learning Workflow for 3D Geomechanical Property Modeling in the Marrat Formation, Sabriyah Field, North Kuwait** | M. Sitouah<sup>\*</sup> (SLB)
- Station C: **Improving rock typing using machine-learning-based rock images clustering** | M. A. Al Ibrahim<sup>1\*</sup>, R. Smith<sup>1</sup>, R. Zhu<sup>2</sup> (1. Saudi Aramco; 2. King Abdullah University of Science and Technology)
- Station D: **Application of machine learning for rock typing based**

on nuclear magnetic resonance data from the Rotliegend formation, Poland | K. Hebda<sup>\*</sup> (AGH University of Krakow)

## LCS P3 Carbon Capture and Storage

8:00 AM - 9:40 AM

Session Chairs: Ishtar Barranco and Tomohiro Yamaashi

Location: Poster Location 2 (on the 3rd level)

- Station A: **CCS based on natural based solutions: soils** | N. Bouton<sup>\*</sup> (Vinci Technologies)
- Station B: **Study on numerical simulation of CO2 expansion front based on sequestration mechanism constraints** | Q. Wang<sup>\*</sup>, W. Zhang, P. Chen, J. Yang, K. Wang, Z. He, H. Zheng (BGP, CNPC)
- Station C: **Quantifying the Critical Migration Threshold for CO2 Storage in Semi-Open Saline Aquifer System** | J. Zhou<sup>\*</sup>, A. Ghamdi, S. Egbeni, M. Alghamdi (Aramco)
- Station D: **Basin-scale evaluation of reservoir capacity and caprock integrity controlling CO2 storage in the Volta Basin, Ghana** | E. B. Nsarful<sup>1\*</sup>, P. Jaiswal<sup>1</sup>, K. Boadi<sup>2</sup> (1. Oklahoma State University; 2. Ghana National Petroleum Corporation)

## LCS P4 Advances in Monitoring Technology

8:00 AM - 9:40 AM

Session Chairs: Gordon Holmes and Kristoffer Walker

Location: Poster Location 3 (on the 3rd level)

- Station A: **Probabilistic delineation of CO2 plume boundaries using waveform-constrained variational normalizing flows** | X. Jiang<sup>\*</sup>, A. Malcolm, C. Farquharson (Memorial University of Newfoundland)
- Station B: **Detectability of CO2 plume evolution using THM simulations and poroviscoacoustic seismic modeling in the Gandhar Oilfield (India)** | S. Zia<sup>2\*</sup>, T. Pavan<sup>1</sup>, A. Malkoti<sup>1</sup>, N. Vedanti<sup>1</sup> (1. CSIR - National Geophysical Research Institute; 2. Academy of Scientific and Innovative Research (AcSIR))
- Station C: **Monitoring, Forecasting, and Decision-Making for CO2 Plume Dynamics in Carbon Storage Using Generative AI and Uncertainty-Driven Seismic Data Acquisition** | S. Chang<sup>1</sup>, C. Zhou<sup>1</sup>, D. Wang<sup>1</sup>, L. Lu<sup>2</sup>, C. Willacy<sup>2</sup>, J. Sun<sup>1</sup>, X. Fu<sup>1</sup>, Y. Huang<sup>1</sup>, X. Wu<sup>1\*</sup>, J. Chen<sup>1</sup> (1. University of Houston; 2. Shell)
- Station D: **Rock physics modeling technology for monitoring reservoir dynamic response to CO2 migration** | W. Zhang<sup>\*</sup>, Y. Zhou, Y. Liu, Q. Wang, Y. Cao, Y. Qian, H. Zheng (BGP, CNPC)

## TL P3 Novel Time Lapse and Carbon Capture, Utilization, and Storage

8:00 AM - 9:40 AM

Session Chairs: William Burnett and Zhaohui Yang

Location: Poster Location 1 (on the 3rd level)

- Station A: **Low-cost monitoring of CO2 sequestration using Null-Space Shuttle and the permanent source ACROSS: A synthetic time-lapse EFWI study at the Aquistore CO2 storage site** | M. Nakata<sup>1\*</sup>, M. Kitadai<sup>1</sup>, H. Tanaka<sup>1</sup>, K. A. Pike<sup>2</sup>, Z. Movahedzadeh<sup>3</sup>, D. White<sup>4</sup> (1. Japan Organization



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## Thursday, 20 August

for Metals and Energy Security; 2. University of Calgary; 3. Petroleum Technology Research Centre; 4. Geological Survey of Canada)

- Station B: **Simultaneous Prediction of Pore Pressure and CO<sub>2</sub> Saturation Changes using MQTransformer** | J. Kim\*, S. Seol, J. Byun (Hanyang University)
- Station C: **Uncertainty Quantification in CO<sub>2</sub> Time-Lapse Inversion using Ensemble Importance Sampling** | L. Qu<sup>3</sup>, L. Demanet<sup>2</sup>, M. Sarrouilhe<sup>4</sup>, M. Araya-Polo<sup>1\*</sup>, S. Frambati<sup>1</sup> (1. TotalEnergies; 2. MIT; 3. MIT; 4. INRIA)
- Station D: **Time-lapse full waveform inversion of VSP data: A comparison of methods and applications** | C. Liu<sup>1\*</sup>, A. Guitton<sup>2</sup>, T. Cullison<sup>1</sup>, B. Biondi<sup>1</sup> (1. Stanford University; 2. TotalEnergies E.P.)

### DMLA P12 Agentic Artificial Intelligence and Foundation Models

10:20 AM - 12:00 PM

*Session Chairs: Jack Fekete and Lewis Li*

**Location: Poster Location 5 (on the 3rd level)**

- Station E: **OpenSeisML: Open large-scale real seismic and well-log dataset for generative AI** | I. Bhar\* (Georgia Institute of Technology)
- Station F: **A Risk-Aware Agentic Framework for Optimizing Carbon Mineralization Operations** | K. Noh\*, A. Swidinsky (University of Toronto)
- Station G: **Edge Computing-Enabled Autonomous Digital Sonic Processing for Accelerated Wellsite Decision-Making** | C. Liu\*, T. Brandon, L. Ma, N. Sakiyama, M. Hamada, T. Lei, A. Donald, E. Velez, V. Lyzko, C. Jeong (SLB)
- Station H: **Building AI-Ready Seismic Foundations: Integrating Archive Intelligence, Cloud Infrastructure and OSDU** | P. Thompson<sup>2\*</sup>, Y. Gubanov<sup>1</sup> (1. Amazon Web Services; 2. Petrosys Group)

### DMLA P13 Advanced Artificial Intelligence Methods for Digital Rock Physics and Imaging

10:20 AM - 12:00 PM

*Session Chairs: Sailendra Mahapatra and Fortune Oyewole*

**Location: Poster Location 6 (on the 3rd level)**

- Station E: **Structure Tensor-Based Identification of Laminated Rocks in  $\mu$ -CT Digital Rock Images** | F. B. Guimarães<sup>1\*</sup>, J. Fernandes<sup>2</sup>, L. da Silva<sup>1</sup>, C. dos Anjos<sup>1</sup>, M. Albuquerque<sup>3</sup>, R. Surmas<sup>3</sup>, A. Gonçalves Evsukoff<sup>1</sup> (1. UFRJ; 2. LNCC; 3. Petrobras)
- Station F: **3D identification of mineral phases in mudrocks using a deep learning model** | T. D. Caldas<sup>1\*</sup>, M. T. Finamore<sup>1</sup>, C. A. Senna<sup>1</sup>, E. P. Pinto<sup>2</sup>, R. Prioli<sup>1</sup>, D. C. Dias-Filho<sup>3</sup>, M. K. Souza<sup>3</sup>, Y. Silva<sup>3</sup> (1. PUC Rio; 2. UNIFAP; 3. Petrobras)
- Station G: **Controllable Generation of Digital Rock Based on a Multi-Conditional Denoising Diffusion Probabilistic Model** | X. Zhang\* (Tongji University)
- Station H: **Deep learning-based grain segmentation and textural analysis from thin section images for reservoir characterization** | T. Alauddin\*, M. A. Al Ibrahim (Saudi Aramco)

### FWI P10 Marine Case Studies

10:20 AM - 12:00 PM

*Session Chairs: Khaled Dulaijan and Chirag Parekh*

**Location: Poster Location 6 (in the Exhibit Hall)**

- Station E: **Multi-parameter FWI imaging: the first case study of 3D marine streamer survey offshore Japan** | T. Ishiyama\*, K. Takahashi, H. Ikawa (INPEX)
- Station F: **Application of FWI on deep water streamer data: A case study in Nigeria** | O. Okpobia<sup>2</sup>, B. Wang<sup>1\*</sup>, M. Omudu<sup>2</sup>, X. Lv<sup>1</sup>, G. Kumar<sup>2</sup>, A. Oni<sup>2</sup>, N. Benfield<sup>2</sup>, H. Liu<sup>1</sup>, C. Ding<sup>1</sup>, Y. Chen<sup>1</sup>, Y. Zhang<sup>1</sup>, Q. Dong<sup>1</sup> (1. GRI, BGP Inc. CNPC; 2. Shell)
- Station G: **Advanced Q-FWI-Driven Imaging and Reprocessing in the Sarawak Basin, Offshore Malaysia** | J. Kumar, J. Oukili, S. Naumann, S. Mohamed, J. Brittan\* (TGS)
- Station H: **Multi-parameter FWI of WAZ streamer data for Norphlet imaging and reservoir characterization – Eastern Gulf of America** | M. Wong<sup>1\*</sup>, D. Bendeck<sup>1</sup>, D. Rocha<sup>1</sup>, H. Kuehl<sup>1</sup>, R. Schelstrate<sup>2</sup>, J. Hopkins<sup>2</sup>, Z. Tang<sup>3</sup>, I. Tsybulkina<sup>1</sup>, A. Gomes Dos Santos<sup>1</sup>, K. Matson<sup>1</sup>, J. Wang<sup>1</sup>, J. Western<sup>1</sup>, T. Gong<sup>1</sup>, J. Jimenez<sup>1</sup> (1. Shell International Exploration & Production Inc; 2. Shell Exploration & Production Company; 3. Shell Global Solutions International B.V.)

### FWI P7 Land

10:20 AM - 12:00 PM

*Session Chairs: Young Ho Cha and Stuart Schmitt*

**Location: Poster Location 3 (in the Exhibit Hall)**

- Station E: **Interpretation breakthroughs from multi-parameter FWI imaging, Delaware Basin** | M. Cogan\* (SLB)
- Station F: **Unlocking value from legacy land surveys: enhanced imaging of the Bossier and Haynesville formations using viscoacoustic MP-FWI imaging** | S. O. Zaman<sup>1\*</sup>, M. Varner<sup>1</sup>, C. Ansorger<sup>1</sup>, D. Pearce<sup>2</sup>, F. McIntosh<sup>2</sup> (1. DUG; 2. BPX)
- Station G: **Application of full waveform inversion to ultra-deep imaging in Fuman, Tarim Basin** | T. Gong<sup>2\*</sup>, X. Gu<sup>1</sup> (1. CNPC; 2. BGP Inc, CNPC)
- Station H: **Improving Drilling Confidence through FWI Enhanced Realtime Seismic Guidance in Structurally Complex Faulted Terranes: An Onshore Case Study** | A. H. Mohamed\* (SLB)

### FWI P8 Elastic and Imaging

10:20 AM - 12:00 PM

*Session Chairs: Amr Elsabee and Laurence Letki*

**Location: Poster Location 4 (in the Exhibit Hall)**

- Station E: **Elastic Full-Waveform Inversion Imaging for Vector Reflectivity and Impedance Recovery** | Q. Du<sup>1\*</sup>, W. Lv<sup>1</sup>, W. Wu<sup>2</sup>, P. Sun<sup>2</sup>, L. Ren<sup>1</sup>, Y. Zhang<sup>1</sup>, T. Moser<sup>3</sup> (1. China University of Petroleum (East China); 2. BGP, CNPC; 3. Moser Geophysical Services)
- Station F: **Robust elastic full wave inversion regularized by dynamic deep learning matching** | C. Li\*, Y. Chen (The University of Texas at Austin)
- Station G: **From Exploration to Development: Scalable FWI Model Building with Sparse OBN and Towed-Streamer Reimaging** | J. Burren\*, R. Huang, H. Xing, A. Sosa, R. Florendo, B. Caselitz (TGS)

# Poster Sessions

\*Denotes presenter.

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Thursday, 20 August

Station H: **Full Waveform Inversion Imaging Using Surface-related Multiples** | Z. Li<sup>1\*</sup>, B. Zhao<sup>1</sup>, Z. Yu<sup>1</sup>, S. Peng<sup>2</sup> (1. China University of Petroleum; 2. CNOOC China Ltd, Tianjin Branch Company, Bohai Oilfield Research Institute)

## FWI P9 Multiparameter and Extended Physics

10:20 AM - 12:00 PM

Session Chairs: Carlos Calderon and Gaurav Dutta

Location: Poster Location 5 (in the Exhibit Hall)

Station E: **Structure-Oriented Gradient Preconditioning Approach for Enhanced Elastic Full-waveform Inversion** | M. G. Gebre\*, P. D. de Lima, J. M. Araujo, C. Bezerra (Federal University of Rio Grande do Norte)

Station F: **Full-waveform inversion with embedded seismic data processing via a shared representation network** | X. Mu\*, O. Saad, T. Alkhalifah (King Abdullah University of Science and Technology)

Station G: **Acoustic vector-reflectivity inversion with first-order parametrization and mixed-norm regularization** | Á. S. Soares\*, W. Zhang, M. D. Sacchi (University of Alberta)

Station H: **Structure Tensor Constraint Waveform Inversion with Attenuation Compensation in Viscoacoustic Medium** | J. Ning<sup>1\*</sup>, G. Liu<sup>1</sup>, C. Li<sup>2</sup>, Q. Wu<sup>1</sup> (1. China University of Petroleum (Beijing); 2. University of Texas at Austin)

## LCS P5 Storage Modeling Studies

10:20 AM - 12:00 PM

Session Chairs: Ishtar Barranco and Ibrahim Goma

Location: Poster Location 4 (on the 3rd level)

Station E: **Sensitivity Analysis of Thermal Contraction Offsetting Pressure-Induced Surface Uplift During Geological CO<sub>2</sub> Storage** | S. Park, B. Chung\*, H. Yoon, W. Jo (Seoul National University)

Station F: **Crossing Sensitive Regimes: Near-Critical and Near-Equilibrium CO<sub>2</sub> Transients** | J. K. Pauyac Estrada\* (Louisiana State University)

Station G: **Permeability and pressure build-up effects on CO<sub>2</sub> storage capacity in an anticlinal structure: A case study from the Middle East** | M. Valderrama\*, M. Slinde, A. Ghamdi (Aramco)

Station H: **Sensitivity analysis of CO<sub>2</sub> storage efficiency factors, Arbuckle Group, Oklahoma** | L. Choiti\*, D. Devegowda, M. J. Pranter (University of Oklahoma)

## MECA P1 Seismic Insights Across Regional Basins

10:20 AM - 12:00 PM

Session Chairs: Hesham Moubarak and Susan Nash

Location: Poster Location 3 (on the 3rd level)

Station E: **Kinematic restoration of the Greater Caucasus foothills showing potential reservoir - source juxtaposition** | E. Nadir\* (SOCAR Exploration)

Station F: **Stratigraphic and Combination Trapping in the Middle Caspian, Azerbaijan: Mesozoic-Cenozoic Architecture and Petroleum System Implications** | T. Ahmadov\*, G. Gadirova, E. Aliyeva, R. Bakhtiyev (SOCAR Exploration)

Station G: **The influence of vibrator array orientation and spacing on seismic acquisition** | Y. Chen\*, M. Nie, Y. Qi, L. Zhai, C. Keji (BGP, CNPC)

## NS P4 Seismic Applications

10:20 AM - 12:00 PM

Session Chairs: Madeleine Pels and Mingyu Zhang

Location: Poster Location 1 (in the Exhibit Hall)

Station E: **SH-Wave Forward Modeling Using Velocity and Vector Reflectivity** | L. Zhang<sup>2\*</sup>, S. Sloan<sup>1</sup> (1. ERDC; 2. Crosstek Solutions)

Station F: **Use of ATV Traffic as a Passive Seismic Source - Implications for Surface Wave Inversion** | J. E. Mika\* (Near Surface Observations, LLC)

Station G: **Seismic imaging of Holocene coastal and inland sabkhas of the Arabian Gulf** | A. K. Eleslambouly<sup>1\*</sup>, G. Li<sup>2</sup>, G. Zhao<sup>1</sup> (1. Khalifa University; 2. Institute of Geophysical and Geochemical Exploration)

Station H: **Site-Response Estimation in the Mississippi Embayment Using Virtual Reference Stations** | Z. Abbasi Hafshejani\*, C. Cramer, S. Pezeshk (University of Memphis)

## NS P5 Hydrogeophysics

10:20 AM - 12:00 PM

Session Chairs: Dan Glaser and Eslam Mohamed

Location: Poster Location 2 (in the Exhibit Hall)

Station E: **Multi-Physics Characterization of Hydrogeology at the Proposed Mine Site** | A. B. Katumwehe\* (Oklahoma State University)

Station F: **Geophysical Imaging of Hydrogeologic System in Southern New Mexico** | M. E. Luna Lucero\*, M. Karplus (The University of Texas at El Paso)

Station G: **Time-Lapse Electrical Resistivity Tomography Monitoring of Hydrocarbon Leakage: A Laboratory-Scale Experiment** | O. Mrabet, S. Hanafy\*, B. Tawabini, T. Solling (KFUPM)

Station H: **Investigation of the influence of precipitation variability on the correlation between soil apparent electrical conductivity and crop yield** | K. L. Kriegshäuser<sup>2</sup>, H. W. Griepentrog<sup>2</sup>, A. HeiB<sup>2</sup>, P. P. De Lugao<sup>1\*</sup> (1. Strataimage Energy Services; 2. University of Hohenheim)

## SMT P3 Modeling and Imaging in Viscous Media

10:20 AM - 12:00 PM

Session Chairs: Shuhua Hu and Yongzhong Wang

Location: Poster Location 1 (on the 3rd level)

Station E: **Verification of reciprocity in anisotropic poroelastic wave simulation using symmetric Strang splitting** | M. Jakobsen\* (University of Bergen)

Station F: **A generalized complex-valued viscoacoustic wave equation based on Tsallis nonextensive statistics** | S. S. Galvão\*, C. N. da Costa, C. Santana, S. Xavier de Souza, T. Barros (Federal University of Rio Grande do Norte)

Station G: **Application of full-stratum q modeling and q migration technology in the loess tableland area of the ordos basin** | G. Li\* (BGP, CNPC)



Thursday, 20 August

Station H: **Application of diffusion filtering method in seismic fine characterization of multi-Type heterogeneous reservoirs in Daqing** | C. Keyang\* (Research Institute of Exploration and Development, PetroChina Daqing Oilfield Co. Ltd)

**SMT P4 Frequency Domain Modeling and Other Methods**

**10:20 AM - 12:00 PM**

*Session Chairs: Fuchun Gao and Shuang Gao*

**Location: Poster Location 2 (on the 3rd level)**

Station E: **Improved DRPSM with Implicit Correction and an Explicit Strategy** | S. Shi\*, H. Liu (China University of Petroleum)

Station F: **Observation-conditioned diffusion models for surrogate seismic forward operator** | S. Cheng\*, T. Alkhalifah (King Abdullah University of Science and Technology)

Station G: **Anisotropic Convergent Born Series for Solving Inhomogeneous Frequency-Domain qP-Wave** | W. Yang\* (China University of Petroleum (East China))

Station H: **Frequency-domain Seismic Modeling with Free Surface via the Rapid Expansion Method** | P. Tian\* (China University of Petroleum (East China))



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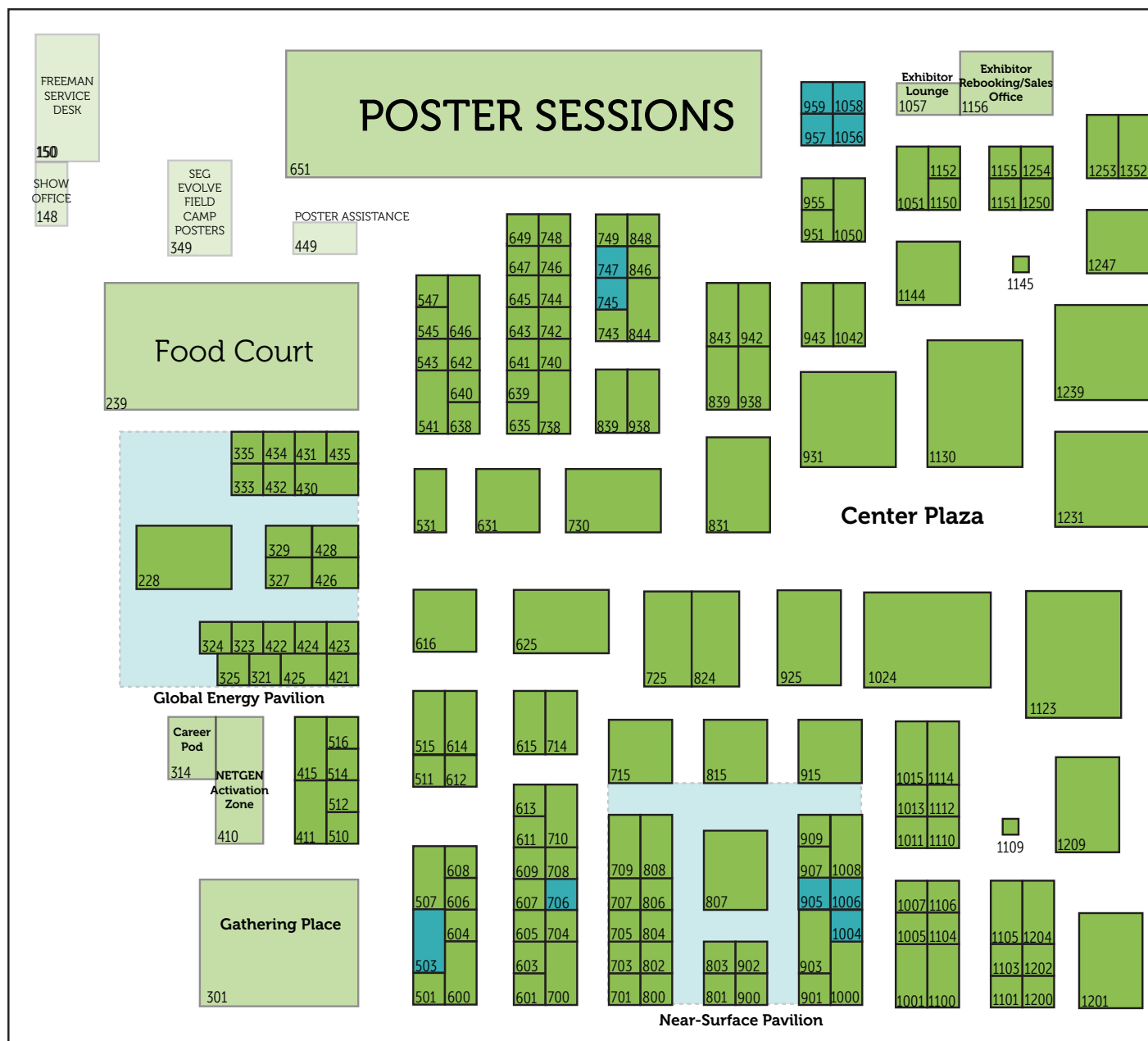
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## Exhibition Hours:

## Monday, 17 August

**Exhibition and Icebreaker Reception**  
5:30 p.m.–7:30 p.m.

## Tuesday, 18 August

Exhibition 9:00 a.m.–6:00 p.m.

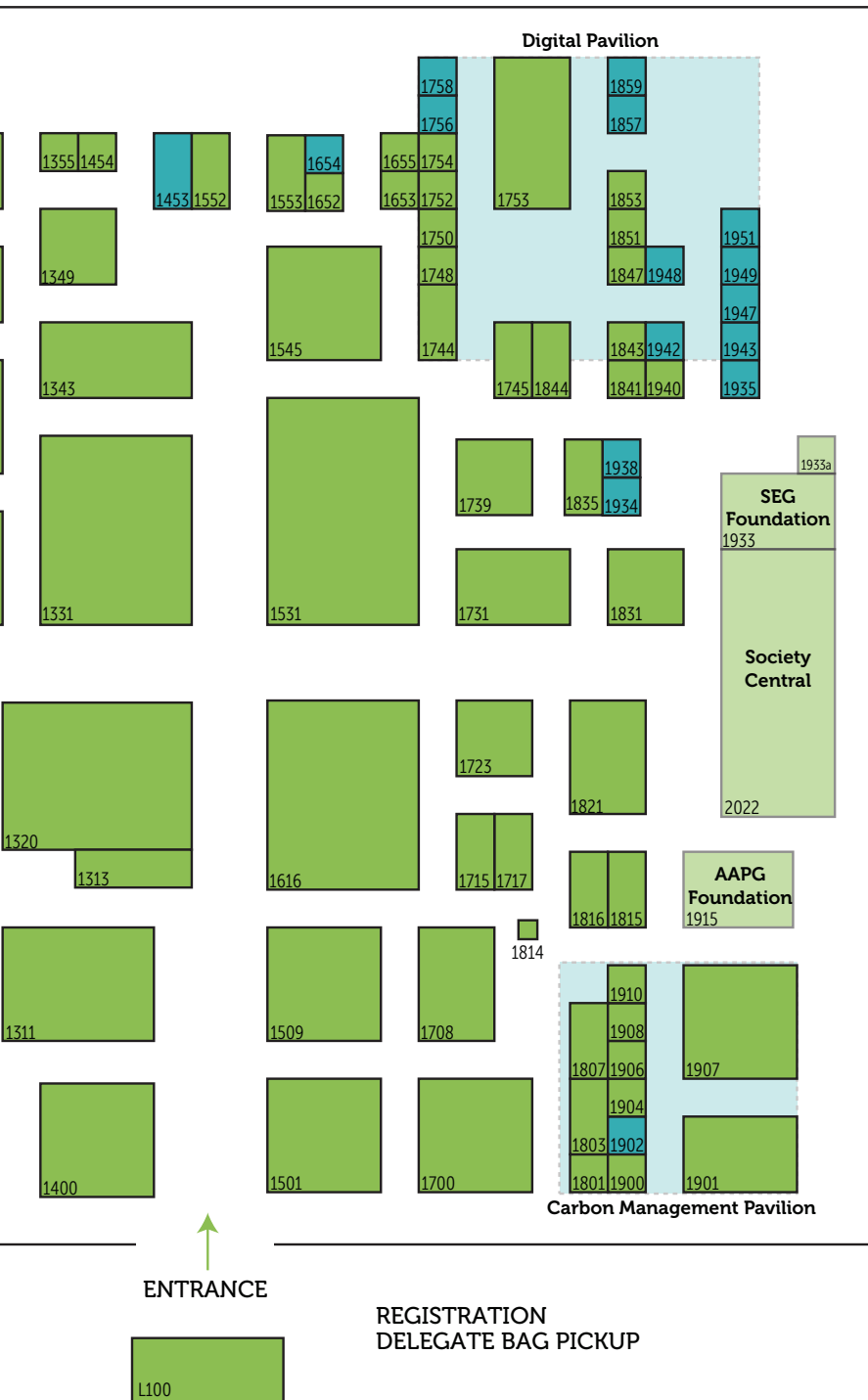
## Wednesday, 19 August

Exhibition 9:00 a.m.–6:00 p.m.

## Thursday, 20 August

**Exhibition 9:00 a.m.–3:00 p.m.**

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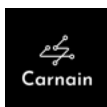
ARK CLS Ltd. ....1821



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Faraday Geophysics .....1723



OptiSeis Solutions Ltd .....531



University of Wyoming Department of Geology & Geophysics.....640



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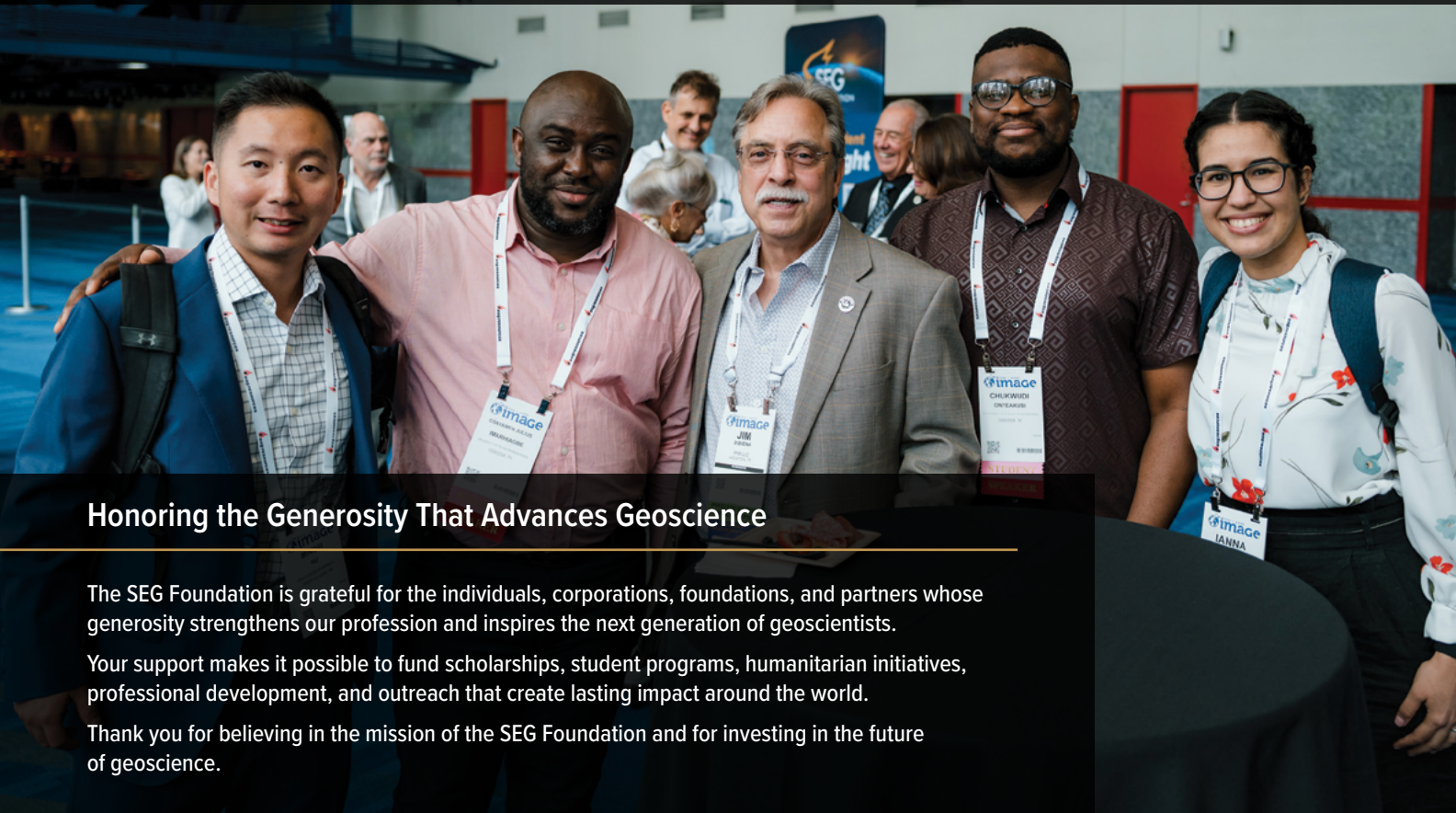


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# Exhibitor List

Exhibitor list is current as of 7 July

| Exhibitor Name                                                | Booth Number | Exhibitor Name                                             | Booth Number |
|---------------------------------------------------------------|--------------|------------------------------------------------------------|--------------|
| AAPG American Association of Petroleum Geologists             | 2022         | ETAP Entreprise d'Activites Petrolieres - Tunisia          | 431          |
| AAPG Foundation                                               | 1915         | European Association of Geoscientists and Engineers (EAGE) | 704          |
| AAPL American Association of Professional Landmen             | 1101         | EXHIBITOR LOUNGE                                           | 1057         |
| Absolute Imaging Inc.                                         | 943          | EXHIBITOR REBOOKING/SALES OFFICE                           | 1156         |
| Access                                                        | 1853         | ExxonMobil                                                 | 415          |
| ACTeQ                                                         | 1731         | Fairfield Geotechnologies                                  | 831          |
| Advanced Geophysical Technology Inc.                          | 1708         | Falmouth Scientific Inc.                                   | 1000         |
| Advanced Logic Technologies sa                                | 801          | Faraday Geophysics                                         | 1723         |
| Al Hazzazi Global Technologies Co                             | 800          | Faraday Geophysics "Hurricane"                             | L100         |
| AMGE                                                          | 514          | FEBUS Optics                                               | 543          |
| ANCAP - Uruguay                                               | 432          | FGPS Limited                                               | 1821         |
| ARK CLS Ltd                                                   | 1821         | Food Court                                                 | 239          |
| Atlas Fluid Controls Corporation                              | 1355         | FREEMAN SERVICE DESK                                       | 150          |
| ATLAS Technical Consultants                                   | 902          | Fugro                                                      | 600          |
| Avalon Sciences Ltd                                           | 615          | Gathering Place                                            | 301          |
| Badley Ashton                                                 | 611          | GEO EXPRO Magazine                                         | 1103         |
| Baylor University, School of Earth and Environmental Sciences | 645          | GeoCare Benefits Group Insurance                           | 545          |
| Because Science - Gift Shop                                   | 1155         | GEODEVICE                                                  | 707          |
| BEG CORE EXHIBIT                                              | 1907         | Geoex MCG                                                  | 1349         |
| BEICIP Inc.                                                   | 613          | Geoxplara SA de CV                                         | 909          |
| Beijing Premier-Union International Investment Co.            | 625          | GeOilGas                                                   | 1152         |
| BGP Inc.                                                      | 1616         | GeoLogica Training                                         | 1715         |
| Bits of Nature LLC                                            | 1253         | GeoMark Research                                           | 1051         |
| Brazilian Society of Geophysics (SBGf)                        | 510          | Geometrics, Inc.                                           | 808          |
| C&C Reservoirs                                                | 1050         | GeoMind                                                    | 725          |
| Cabral Energy                                                 | 1005         | GeoPartners Ltd                                            | 333          |
| Carbon Management Theater                                     | 1901         | Geophysical Deep Sensing Technology (GDST)                 | 1803         |
| Career Pod                                                    | 314          | Geophysical Society of Houston                             | 1655         |
| Carnain                                                       | 1112         | Geophysical Technology Inc                                 | 1731         |
| Cegal, LLC                                                    | 824          | GeoScienceWorld                                            | 1844         |
| Challenger GeoInstruments LTD.                                | ADD to FP'   | GeoSoftware                                                | 730          |
| China University of Petroleum (Beijing)                       | 641          | Geospace Technologies                                      | 1231         |
| China University of Petroleum (East China)                    | 426          | Geostuff                                                   | 703          |
| Chinook Consulting Services Ltd                               | 1940         | Geotek Ltd                                                 | 642          |
| CMG Seismic Solutions                                         | 1123         | Geoteric                                                   | 1247         |
| Colorado School of Mines                                      | 638          | Geothermal Rising                                          | 1908         |
| Comision Ejecutiva Hidroelectrica del Rio Lempa               | 421          | GeoTomo LLC                                                | 1201         |
| ConocoPhillips                                                | 411          | Geovista LTD                                               | 804          |
| Core Laboratories                                             | 1013         | Getech                                                     | 639          |
| COSL                                                          | 1700         | GIGABYTE                                                   | 612          |
| Danomics                                                      | 1104         | Global Energy Opportunities (GEO) Theater                  | 228          |
| DataLog & GeoVision                                           | 1841         | Global Geophysical Services                                | 1731         |
| DeepWave Consortium                                           | 547          | Government of Grenada                                      | 425          |
| Delegate Bag Pick Up                                          | A            | Government of Newfoundland and Labrador                    | 423          |
| Delft Inversion                                               | 649          | GVERSE GeoGraphix                                          | 1144         |
| dGB Earth Sciences                                            | 839          | Halliburton                                                | 1239         |
| Digital Theater                                               | 1753         | Hanyang University (RISE.ml)                               | 749          |
| Discoverseis                                                  | 1152         | Hasting Micro-Seismic Consulting, Inc.                     | 705          |
| Diversified AI                                                | 955          | Hefei Guowei Electronics Co.Ltd.                           | 909          |
| DMT                                                           | 900          | Herrenknecht AG                                            | 1910         |
| DUG                                                           | 1331         |                                                            |              |
| Dynamic Graphics, Inc.                                        | 1816         | High Tech, Inc.                                            | 709          |
| Earth Signal Processing                                       | 715          | Houston Geological Society                                 | 501          |
| EasyCopy Company & iGeos                                      | 844          | i2k Connect                                                | 1754         |
| EDCON-PRJ Inc                                                 | 1100         | Ikon Science                                               | 1545         |
| EIFGEOSOLUTIONS LTD.                                          | 609          | Imaged Reality Ltd.                                        | 1906         |
| Eliis                                                         | 1343         | In-Depth Geophysical, Inc.                                 | 1553         |
| EMGS                                                          | 1204         | INOVA Geophysical                                          | 714          |
| Empower Logistics LLC                                         | 511          | Instituto Nacional de Petroleo - Mozambique                | 434          |
| Engenius Software                                             | 1250         | IRIS Instruments                                           | 803          |
| Envoi Limited                                                 | 321          | ISTI                                                       | 1801         |



| Exhibitor Name                                   | Booth Number | Exhibitor Name                                                  | Booth Number |
|--------------------------------------------------|--------------|-----------------------------------------------------------------|--------------|
| Jensen Beach Technologies                        | 743          | SEPM Society for Sedimentary Geology                            | 1835         |
| JIO, A Lumina Company                            | 1752         | Sercel                                                          | 1313         |
| Katalyst Data Management                         | 1024         | Sesisgadget - Sound Oceanics                                    | 1717         |
| Land Seismic Noise Specialists, LLC              | 739          | Sharp Reflections                                               | 1123         |
| Leobersdorfer Maschinenfabrik GmbH (LMF)         | 1831         | SHEARWATER                                                      | 1509         |
| Lumina Geophysical                               | 1209         | SHOW OFFICE                                                     | 148          |
| METT & United Oil & Gas Plc.                     | 335          | SINOPEC Geophysical Corporation                                 | 1311         |
| MicroSeismic, Inc.                               | 1106         | Sisprobe by Egis                                                | 901          |
| Ministerio de Energia y Minas -Dominian Republic | 325          | SLB                                                             | 1531         |
| Ministry of Natural Resources Belize             | 329          | SmartSolo Inc.                                                  | 1007         |
| Moyes & Co.                                      | 323          | SOCIETY CENTRAL                                                 | 2022         |
| Nanometrics                                      | 1552         | Sonardyne                                                       | 507          |
| NAPE                                             | 1101         | Sound QI Solutions Ltd.                                         | 541          |
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| Nova Scotia Department Energy                    | 424          | Subsurface Clarity, LLC                                         | 1847         |
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| Oklahoma State University                        | 848          | Task Fronterra Geoscience Inc.                                  | 1652         |
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