

The World's #1 Geoscience Event



The International Meeting for Applied Geoscience and Energy

**Building Your Geoscience Success:  
5 Years of Discovery & Innovation**

OFFICIAL PROGRAM



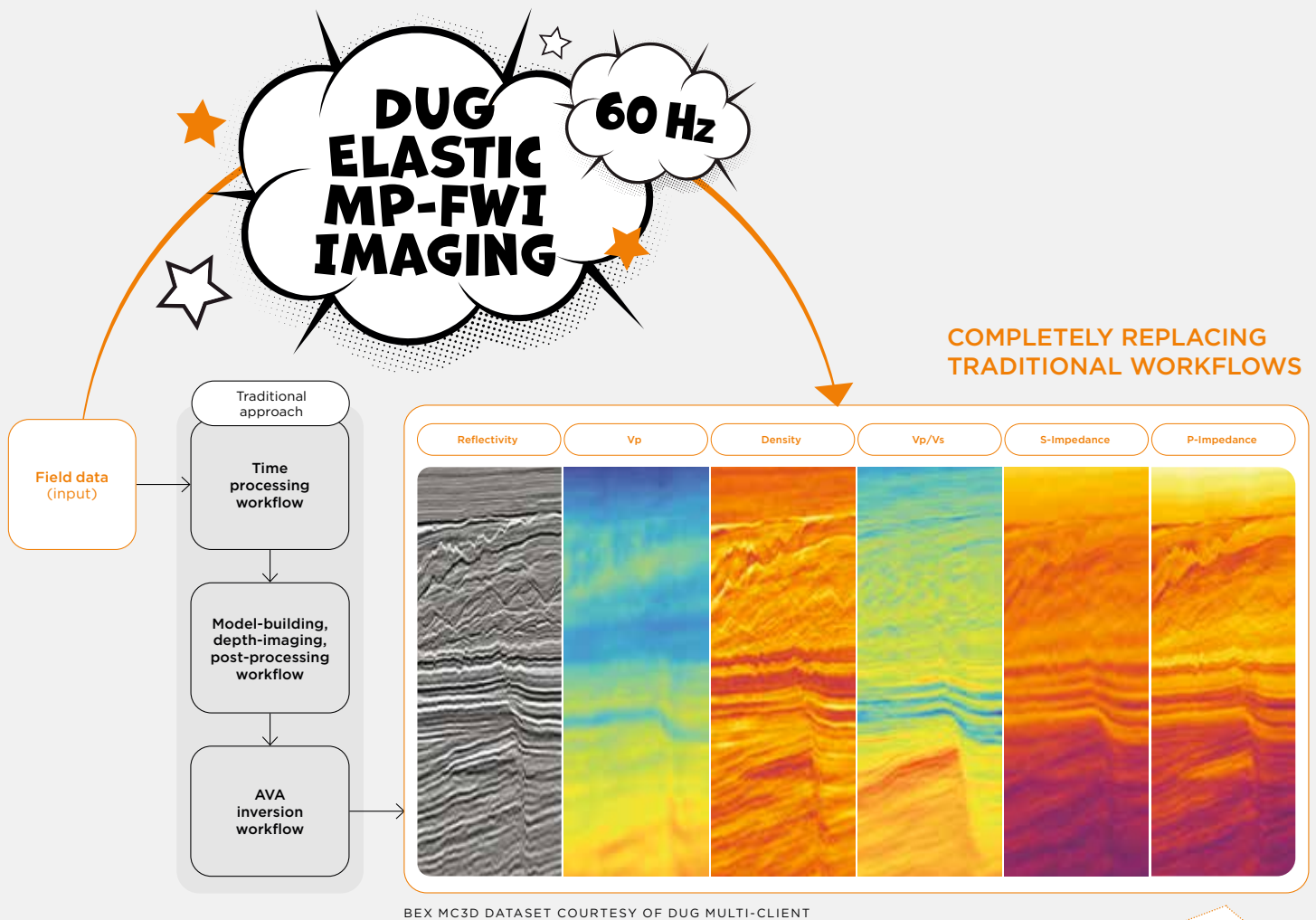
25–28 August 2025 • George R. Brown Convention Center • Houston, Texas



**Official Program  
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DUG Elastic MP-FWI Imaging enables simultaneous inversion of reflectivity (3-component, directional, horizontal), P-wave velocity, S-wave velocity, density, P-impedance, S-impedance, and Vp/Vs ratio, providing quantitative-interpretation-ready outputs of the highest resolution and amplitude fidelity — using field-data input. In this example we can readily identify the reservoir location — a beautiful flat spot!

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Drop by  
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# Welcome to IMAGE '25

CELEBRATING A LEGACY OF INNOVATION:

## Building Your Geoscience Success

IMAGE '25 is meticulously designed to be the central meeting point where our dynamic community converges. Through comprehensive technical sessions, extensive resources, and the presence of professionals wielding critical skills, advanced technology, and profound expertise, you will discover solutions to the industry's most pressing issues. Your path to future success begins at IMAGE '25.

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*Please note: Throughout this program all currency is listed in US\$ and all times are listed in Central Daylight Time.*

# Thank You 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.

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## Platinum Sponsors



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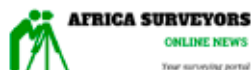
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# Navigate Like a Pro with the IMAGE Events App

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Make the most of your time at IMAGE '25 with the official IMAGE app — your digital guide to everything happening in Houston.

- 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
- Judge technical program 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 201 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.

## Journey to the top at Society Central!

Booth #201

See page 42 for details.

## Follow us on social media

to stay informed about everything  
happening at IMAGE.

#IMAGE25



**IMAGEEVENT.ORG**

# Explore the Bookstore — And Spin to Win!

## Located on Level 3 near the Technical Sessions

The AAPG | SEG Bookstore is more than just a shop—it's where geoscientists come to expand their knowledge, find answers to complex challenges, and grow their technical libraries. Browse an exceptional collection of new releases, best-sellers, and discounted titles from AAPG and SEG, covering the full spectrum of applied geoscience.

Whether you're exploring the latest innovations or deepening your expertise, this is the place to fuel your curiosity and connect with the science.

And don't miss the Big Wheel! Stop by and spin to win prizes, book discounts, and more. It's a fun way to engage while discovering what the bookstore has to offer.

## Author & Editor Signings:

Meet the minds behind the books at scheduled signings throughout the week. Use the mobile app for more details.

### Signings include:

Leon Thomsen, author of *Surely You're Joking, Mr. Thomsen!*

*Adventures of a Petroleum Scientist*

Monday, 3:30 p.m.–4:00 p.m.

Tuesday, 1:00 p.m.–1:30 p.m.

Wednesday, 3:00 p.m.–3:30 p.m.

Kurt Marfurt, coauthor of *Essentials of Seismic Attributes and Impedance Inversion*

Tuesday, 3:00 p.m.–3:30 p.m.

Wednesday, 10:00 a.m.–10:30 a.m.

## Bookstore Hours

Monday: 3:30 p.m.–6:00 p.m.

Tuesday: 8:00 a.m.–6:00 p.m.

Wednesday: 8:00 a.m.–6:00 p.m.

Thursday: 8:00 a.m.–3:00 p.m.



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## Help a **Student** **Take Flight**

***A small donation can lead to  
a big career breakthrough.***

SEG student members rely on travel support to attend conferences, present research, and build lifelong networks. Your \$10, \$25, or \$50 gift can help a student like you once were.

***Give now and help a student attend IMAGE 2026.  
Every gift makes a direct impact.***

- \$10, \$25, or \$50 gift – Contributes to flight cost
- \$100 – Helps with registration fees
- \$250-\$599 – Helps pay for hotel and meals
- \$600 – Buys a one-way flight
- \$1,250 – Gets a student halfway there
- \$2,500 – Fully sponsors one student's IMAGE experience

***What does \$2,500 do?***

It unlocks a future for one aspiring geoscientist.



**Stop by and visit us at the Foundation  
Lounge in Society Central! (Booth #201)**



# Inside IMAGE Podcast

Inside IMAGE, Presented by Seismic Soundoff  
Hosted by Andrew Geary

**Get a front-row seat to the conversations shaping the geosciences.**

Inside IMAGE is a special series from Seismic Soundoff, SEG's flagship podcast hosted by Andrew Geary, now in its 10<sup>th</sup> year. This limited-edition series takes you behind the scenes of IMAGE, the premier geoscience event, with exclusive interviews and in-depth discussions.

Hear from industry leaders, technical experts, and passionate professionals as they explore the latest in applied geophysics, geology, and the evolution of IMAGE itself. Whether you're a seasoned attendee or new to the field, Inside IMAGE brings the people, purpose, and progress of IMAGE straight to your ears.

Tune in during and after the event to experience the voices driving innovation in Earth science.



[IMAGEevent.org/podcast](http://IMAGEevent.org/podcast)

## SEG Corporate Members

The Society of Exploration Geophysicists proudly recognizes its Corporate Members, a dedicated group of organizations that are committed to advancing the science of applied geophysics and the education of geophysicists worldwide.



A Corporate Membership in SEG provides your company with outstanding visibility among the Society's growing membership, a highly targeted audience of applied geophysics professionals worldwide. Corporate membership offers a wealth of networking opportunities designed to help your company form mutually beneficial relationships with the best in the industry. If you are ready to team up with our staff and work together for premium results, we invite you to apply for corporate membership! Visit the SEG membership booth in Society Central or contact a representative at +1-918-497-4646 or [members@seg.org](mailto:members@seg.org).





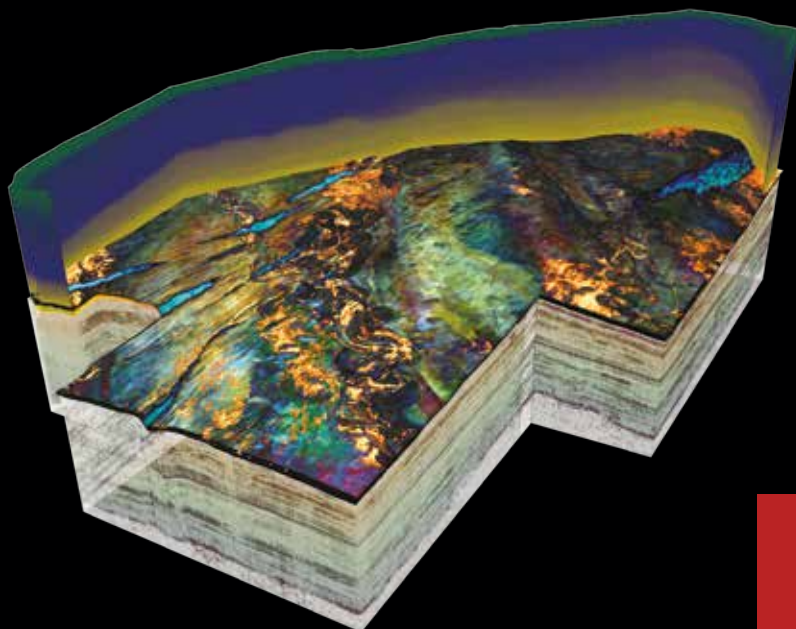
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Contributions are tax-deductible according to  
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# Hotel Maps

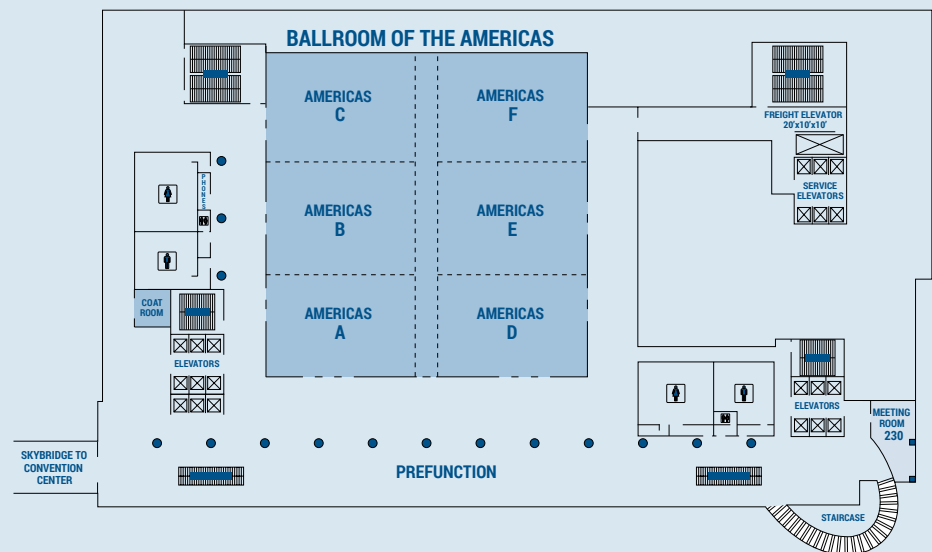
## Marriott Marquis Houston

### Level 2

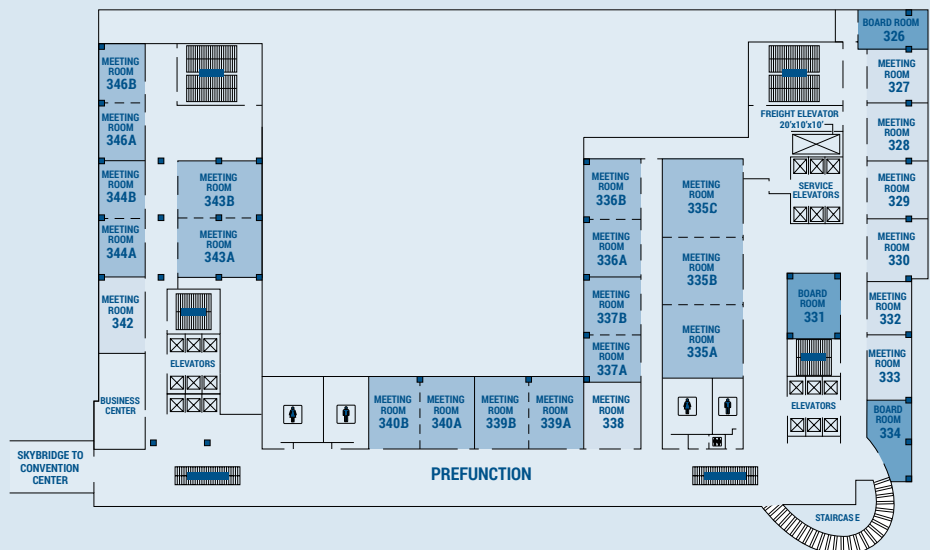


# Hilton Americas — Houston

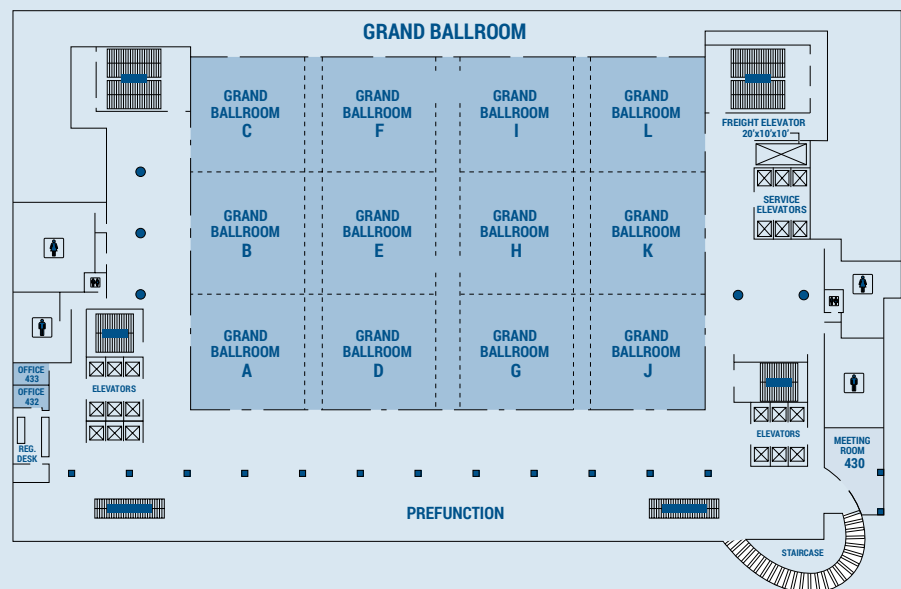
## Level 2



## 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 (at Hotels)

Location: Marriott Marquis Houston

Level 2 Near Skybridge to Convention Center

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.

Location: Hilton Americas — 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 D and E

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 '25 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

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

IMAGE is dedicated to providing a harassment-free convention experience for everyone, regardless of gender, sexual orientation, disability, physical appearance, body size, race, nationality, or religion. We do not tolerate harassment of convention 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 convention venue, including talks.

Harassment includes offensive communication related to gender, sexual orientation, disability, physical appearance, body size, race, nationality, religion, sexual images in public spaces, deliberate intimidation, stalking, following, harassing photography or recording, sustained disruption of talks or other events, inappropriate physical contact, and unwelcome sexual attention.

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. 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 convention with no refund.

## Reporting

If someone makes you or anyone else feel unsafe or unwelcome, please report the incident to a convention staff member as soon as possible. You can make a report either personally or anonymously online at <https://www.imageevent.org/attend/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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Engagement Chair



**Susan Nash**

**AAPG**  
New Technology Showcase  
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**Tom Agnew**

**SOCIETY OF EXPLORATION  
GEOPHYSICISTS**  
Staff Liaison



# Schedule at a Glance

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

## Saturday, 23 August

8:00 a.m.–6:00 p.m. Preconvention Field Trips  
12:00 p.m.–5:00 p.m. Satellite Registration (Hilton Americas — Houston)

## Sunday, 24 August

8:00 a.m.–5:00 p.m. Registration  
8:00 a.m.–5:00 p.m. Satellite Registration (Hilton Americas — Houston / Marriott Marquis Houston)  
8:00 a.m.–5:30 p.m. Preconvention Short Courses  
10:00 a.m.–6:00 p.m. SEG/Chevron Student Leadership Symposium (SLS) — Day 1  
5:00 p.m.–6:00 p.m. SEG Gravity and Magnetics Committee Meeting

## Monday, 25 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 (Hilton Americas — Houston / Marriott Marquis Houston)  
8:00 a.m.–3:30 p.m. SEG/Chevron Student Leadership Symposium (SLS) — Day 2  
9:00 a.m.–11:00 a.m. SEG Council Meeting and Presidential Address  
1:30 p.m.–3:30 p.m. AAPG Division of Professional Affairs Annual Meeting  
1:30 p.m.–4:30 p.m. C-Suite Strategic Panel and Networking Reception  
2:00 p.m.–3:30 p.m. Women's Network Geology of Coffee  
3:00 p.m.–4:30 p.m. SEG GEOPHYSICS Editors Meeting  
3:30 p.m.–6:00 p.m. IMAGE Bookstore  
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, 26 August

7:00 a.m.–5:30 p.m. Registration  
7:00 a.m.–1:00 p.m. Satellite Registration (Hilton Americas — Houston / Marriott Marquis Houston)  
8:00 a.m.–12:00 p.m. Oral and Poster Sessions  
8:00 a.m.–6:00 p.m. IMAGE Bookstore  
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.–2:00 p.m. Exhibition Food Court  
10:20 a.m.–12:00 p.m. Panel: Mergers and Acquisitions  
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)  
1:00 p.m.–5:00 p.m. Geothermal Hub Presentations  
1:20 p.m.–5:20 p.m. Oral and Poster Sessions  
3:00 p.m.–4:00 p.m. Refreshment Break  
2:00 p.m.–5:00 p.m. New Technology Showcase  
3:00 p.m.–5:00 p.m. Early Career Speed Mentoring  
4:30 p.m.–5:00 p.m. AAPG Imperial Barrel Award (IBA) Ceremony  
5:00 p.m.–6:00 p.m. End-of-Day Reception  
5:00 p.m.–6:00 p.m. AAPG Imperial Barrel Award (IBA) Reception (by invitation only)  
5:00 p.m.–6:00 p.m. SEG Geoscientists *without* Borders® Reception  
6:30 p.m.–7:30 p.m. AAPG Honors & Awards Ceremony  
6:30 p.m.–7:30 p.m. SEG Honors & Awards Ceremony  
7:00 p.m.–10:00 p.m. SEG Near-Surface Geophysics Reception  
7:00 p.m.–10:00 p.m. SEPM Carbonate Research Groups  
7:30 p.m.–9:00 p.m. AAPG/SEG Presidents' Reception (by invitation only)  
9:00 p.m.–12:00 a.m. Presidential Jam



## Wednesday, 27 August

- 7:30 a.m.–6:00 p.m. Registration  
 8:00 a.m.–9:40 a.m. Special Session: Best of EAGE 2025  
 8:00 a.m.–12:00 p.m. Oral and Poster Sessions  
 8:00 a.m.–6:00 p.m. IMAGE Bookstore  
 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  
 8:00 a.m.–5:00 p.m. SEG EVOLVE/Field Camps  
 10:00 a.m.–2:00 p.m. Exhibition Food Court  
 10:20 a.m.–12:00 p.m. Panel: New Energies and Energy Transition: CCS Economics, Environmental Aspects, and Regulatory Frameworks  
 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 Magnetics and Mining and Mineral Exploration Joint Luncheon  
 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. Special Session: Discovery Thinking  
 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  
 5:30 p.m.–7:30 p.m. All-Alumni Reception  
 5:30 p.m.–7:30 p.m. Alumni Receptions (by invitation only)  
 6:00 p.m.–7:00 p.m. SEG Passive Seismic Committee Meeting  
 6:30 p.m.–7:30 p.m. AGU/SEG Collaboration Committee Meeting  
 6:30 p.m.–8:30 p.m. AAPG Foundation Chairman's Reception (by invitation only)  
 6:30 p.m.–8:00 p.m. AAPG/SEG Latin America and Caribbean Region Meeting and Reception

## Thursday, 28 August

- 7:00 a.m.–9:00 a.m. Women's Networking Breakfast at Phoenixia MKT  
 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.–3:00 p.m. IMAGE Bookstore  
 8:00 a.m.–3:00 p.m. Applied Science Education Program (ASEP) for K-12  
 9:00 a.m.–12:00 p.m. Geothermal Hub Presentations  
 9:00 a.m.–3:00 p.m. Exhibition  
 9:00 a.m.–3:00 p.m. Pavilion Theatre 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 Energy and Minerals Division (EMD) and AAPG Division of Environmental Geosciences (DEG) Luncheon  
 12:00 p.m.–1:00 p.m. SEG Mining and Mineral Exploration Committee Meeting  
 1:00 p.m.–5:00 p.m. Geothermal Hub Presentations  
 1:20 p.m.–4:50 p.m. Oral and Poster Sessions  
 4:00 p.m.–5:00 p.m. SEG CO<sub>2</sub> Research Subcommittee Meeting  
 5:00 p.m.–7:00 p.m. SEG Research Committee Meeting  
 5:30 p.m.–6:30 p.m. SEG Development and Production Committee Meeting

## Friday, 29 August

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

# Have you downloaded the app yet?

It's your all-access pass to schedules, maps, speakers, and more.

Start building your IMAGE roadmap today.



# C-Suite Strategic Panel

New for  
2025!

Monday, 25 August | 1:30 p.m.–4:30 p.m.  
George R. Brown Convention Center, Ballroom B

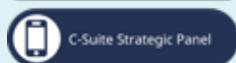
## Global Upstream for the 2030's: Energy Markets, Geopolitics and Growth Routes – Reshaping the Energy Landscape

Join top executives from the energy and finance sectors for a high-level strategic discussion on the future of upstream. This inaugural C-suite panel will explore how global market dynamics, shifting geopolitical forces, and emerging growth opportunities are redefining the upstream playbook for the decade ahead.

Discover why international investment and cross-border collaboration will be essential to navigating uncertainty and securing long-term value in a rapidly evolving energy landscape.

### Key discussion points:

- What is the long-term role of oil and gas in a rapidly evolving global energy mix?
- How should various types of oil and gas companies position themselves to remain competitive and resilient through the 2030's?
- With North American onshore basins reaching maturity, how can domestic players re-enter — or enter for the first time — the international upstream market?
- What portfolio strategies will offer the strongest balance of resilience, growth, and sustainability?
- How can both organic and inorganic growth approaches be optimized to support long-term strategic goals?



Scan for full speaker  
details and the latest  
information or use the  
mobile app.

### Sponsor:

Welcome and  
Introduction  
1:30 p.m.–1:40 p.m.



- **Jessica Ciosek**, Head of Americas Subsurface Research, Wood Mackenzie

### Executive Leadership Conversation

1:40 p.m.–2:10 p.m.

- **Gregory Hebertson**, Co-Head and Chief Operating Officer, Westlawn Americas Offshore
- **Andrew Latham**, Senior Vice President Energy Research, Wood Mackenzie (host)

### Upstream Strategy Panel

2:10 p.m.–3:30 p.m.

- **Helen Currie**, Chief Economist, ConocoPhillips
- **Sunday Shepherd**, General Manager Strategy, Chevron
- **Christopher Watson**, Managing Director, Barclays Capital
- **Robert Clarke**, Vice President Upstream Research, Wood Mackenzie
- **Michael Steinhacker**, Vice President Upstream Consulting, Wood Mackenzie (moderator)

### Networking Reception:

Following the panel discussions, guests are welcome to join a networking reception from 3:30 p.m.–4:30 p.m. in Ballroom C — just ahead of the IMAGE Opening Session. This gathering offers a unique opportunity to connect with fellow industry leaders, panelists, and C-suite peers in a more relaxed setting.

**Continue the conversation, build new relationships, and be part of the strategic dialogue shaping the future of upstream.**

# Don't miss the IMAGE '25 Opening Session

Capping off the day's strategic discussions, the IMAGE Opening Session is where the energy community comes together to set the tone for the week ahead.

Join industry leaders, innovators, and changemakers for a dynamic kickoff filled with insight, inspiration, and a look ahead at the forces shaping the future of geoscience. From big-picture trends to bold new ideas, this is the session that brings it all into focus.

If you're serious about the future of energy—this is where you need to be.

**Topic:** Exploration - Dealing with Reservoir Complexities

**Panelists:**

- **Faisal Bakar**, Vice President (Exploration) Upstream Business, PETRONAS
- **Kristian Johansen**, Chief Executive Officer, TGS
- **Danielle Carpenter**, General Manager, Global Exploration Review Team, Chevron
- **Chris Olson**, Vice President, Head of Exploration, Murphy

**Moderator:** • **Bob Fryklund**, Chief Upstream Strategist, S&P Global Commodity Insights

**Date:** Monday, 25 August

**Time:** 4:30 p.m.–5:30 p.m.

**Location:** George R. Brown Convention Center, Ballroom B

**Fee:** Included with registration

Over the past two decades, the oil and gas sector has added giant carbonate discoveries, giant and complex ultra deepwater turbidites, and basement reservoirs. Many of these challenge our technical and production capabilities. Additionally, recent giant discoveries have proven uneconomic due to difficult financial factors and reservoir complexities — in fluid and rocks. Moderated by Bob Fryklund, our expert panel will address the industry's continued challenges with basin limits surrounding exploration and conditions. The engaging and dynamic dialogue will focus on how to better predict and develop complex reservoirs. We will also examine the roles of technology, data, and operations in the prediction and development processes. And you won't want to miss the welcome address from AAPG President Brian Horn and SEG President John Eastwood, followed by an engaging panel discussion.



Faisal Bakar



Kristian Johansen



Danielle Carpenter



Chris Olson



Bob Fryklund

# Special Features

## Discovery Thinking Forum

**Topic:** Integrating Geology and Geophysics:  
DHI Reveals Major Subsurface Discoveries

**Speakers:** Multiple speakers presenting

**Chairs:** Charles Sternbach and Mike Forrest

**Date:** Wednesday, 27 August

**Time:** 1:20 p.m.–5:20 p.m.

**Location:** George R. Brown Convention Center  
Room 360A

**Fee:** Included with registration

Now in its 30<sup>th</sup> installment, the 2025 Discovery Thinking Forum continues AAPG's long-standing tradition of spotlighting the stories behind the science. Featuring five extraordinary case studies, this forum highlights the powerful role that integrated geology and geophysics play in achieving some of the world's most impactful discoveries.

Built on 17 years of success and more than 100 discoveries, Discovery Thinking presentations go beyond data—they celebrate the art, strategy, and human insight behind exploration. Speakers will share:

- First-hand accounts from remarkable careers
- Candid reflections on business, technical, and professional hurdles
- Memorable moments, colorful anecdotes, and lessons learned

For early-career geoscientists and seasoned professionals alike, these stories serve as living analogs—real-world examples of how innovation, persistence, and vision drive breakthrough results.

This is more than a session—it's a masterclass in exploration thinking.



*"From Moosehead to Mopane—Access to high quality data as a key driver for successful DHI led exploration in Namibia"*  
**Speaker:** Teresa Martins, Galp



*"Colombia & Sirius Discovery: Unveiling a New Frontier in Gas Exploration"*  
**Speaker:** Marcos Vallério Gonçalves Galvão, Petrobras



*"Sirius Gas Discovery - Geological Setting and Caribbean Offshore Exploration Historical Perspective"*  
**Speaker:** Antonio Jose Velásquez, Ecopetrol S.A.



*"Direct Hydrocarbon Indicators in carbonates: current landscape, future potential?"*  
**Speaker:** Henry S. Pettingill, Rose and Associates



*"New Frontiers in the Last Frontier—Pantheon Progress on the North Slope of Alaska"*  
**Speaker:** Max Easley, Pantheon Resources



**Scan code for more details on this year's Special Features or download the mobile app.**



# Michel T. Halbouty Lecture

**Topic:** Living in a Remote Field Camp 240 MM Miles from Home  
**Speaker:** Jim Reilly, Senior Executive Advisor, Booz | Allen | Hamilton Lead, In-Space Manufacturing Initiative  
**Date:** Wednesday, 27 August  
**Time:** 5:25 p.m.–6:15 p.m.  
**Location:** George R. Brown Convention Center Room 360A  
**Fee:** Included with registration

This distinguished lecture series honors the pioneering spirit of Michel T. Halbouty—explorer, innovator, and visionary. Funded by the AAPG Foundation, the Halbouty Lecture spotlights bold, frontier-pushing ideas that align with his legacy of exploration excellence.

Each year, the lecture focuses on one of two transformative themes:

**Wildcat Exploration:** Showcasing breakthroughs in untapped regions with the potential to significantly increase global petroleum reserves.

**Space Exploration:** Exploring how astrogeological discoveries can unlock new resource frontiers—both on Earth and beyond.

Don't miss this thought-provoking session that celebrates the courage to explore the unknown.

*Presented by the AAPG Foundation*



Jim Reilly

*Jim Reilly is a consultant to Booz Allen Hamilton's aerospace business. As a space systems expert and former astronaut, Jim works to develop innovative solutions for space-related services, earth systems characterization, and applications for a variety of clients including the Department of Defense, National Oceanic and Atmospheric Administration (NOAA), National Aeronautics and Space Administration (NASA), and the intelligence community. In addition to Booz Allen, Jim is working with academic and professional organizations in developing future enabling capabilities supporting human Moon to Mars Program missions. Jim has more than 25 years of multidisciplinary technical, engineering, and management experience in resource assessments; applications-focused earth systems characterization; space systems development, applications, and operations; and education. From 2018 to 2021, Jim Reilly was the director of the U.S. Geological Survey (USGS) where he managed an annual \$1.8 billion operating budget for the nation's largest water, earth resources, biological science, natural hazards, and civilian mapping agency. Before USGS, Jim served U.S. and allied militaries as a subject matter expert on space operations, and as a technical advisor supporting the National Security Space Institute of the U.S. Air Force. As an astronaut at NASA, he had a distinguished 13-year career where he flew on three space shuttle missions and conducted five spacewalks totaling more than 856 hours in space. Jim has held management positions in academia, in addition to TAEUS Corporation and PhotoStencil Corporation in Colorado Springs, Colorado. He also served 17 years with the U.S. Navy as a reserve engineering duty officer and was designated a space systems expert in the Space Cadre. Jim earned his bachelor's, master's, and doctorate degrees in geosciences from the University of Texas at Dallas.*

## Honors and Awards Ceremonies

### SEG Honors and Awards Ceremony

**Date:** Tuesday, 26 August  
**Time:** 6:30 p.m.–7:30 p.m.  
**Location:** Hilton Americas-Houston Ballroom of the Americas A/B/C  
**Fee:** Included with registration

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 Ceremony

**Date:** Tuesday, 26 August  
**Time:** 6:30 p.m.–7:30 p.m.  
**Location:** Hilton Americas-Houston, Ballroom of the Americas D/E/F  
**Fee:** Included with registration

You are cordially invited to attend the Honors and Awards program of AAPG, which provides a means for recognizing outstanding achievements and contributions by professional geologists and by other professionals who further the goals and objectives of our science, profession, and Association.

# Technical Program Panels

## Mergers & Acquisition Uncovered: Market Trends, Deal Execution, and Career Paths in Oil & Gas A&D and Private Equity

**Date:** Tuesday, 26 August  
**Time:** 10:20 a.m.–12:00 p.m.  
**Location:** George R. Brown Convention Center, 360A  
**Fee:** Included with registration  
**Panelists:** Don Burdick, Olifant Energy; Cristina Stellar, BOK Financial; Peter Dillelt, Birch Resources II  
**Speakers:** Matt Dangel, Red Stag Resources; Richard Ball, Red Stag Resources  
**Moderator:** Sean Kimiagar, Energy Basix

This panel highlights technical experts (Geoscientists & Engineers) who transitioned from purely technical roles to leading business strategy, M&A, and company growth. Hear how they broke into the deal world, lessons learned from the boardroom, and how technical expertise can drive commercial success. Ideal for anyone curious about expanding their impact beyond technical subsurface world.

The speakers will discuss what it takes to raise money and build a company in today's market. This talk features energy entrepreneurs sharing firsthand insights on capital raising, navigating A&D, and startup strategy. From deal structure to investor pitch, learn what founders need to success, and what they wish they'd known starting out.

## New Energies and Energy Transition: CCS Economics, Environmental Aspects, and Regulatory Frameworks

**Date:** Wednesday, 27 August  
**Time:** 10:20 a.m.–12:00 p.m.  
**Location:** George R. Brown Convention Center, 362A  
**Fee:** Included with registration  
**Panelists:** Wadii El Karkouri, TGS; Sarah Forbes, United States Department of Energy; Jennifer L Wilding, Chevron; Sandeep K. Chandola, PETRONAS  
**Moderator:** Lorraine Chambon, Technip Energies

This session will explore the financial, environmental, and regulatory dimensions of carbon capture and storage (CCS) through insights from energy executives, environmental advocates, and technical experts. Topics include financing models, environmental monitoring, global regulatory comparisons, and opportunities for international collaboration. Attendees will gain practical takeaways, including best practices, lessons learned, and a foundational understanding of how to implement CCS projects.

## Best of EAGE 2025

Don't miss the Best of EAGE!  
This year's program features standout presentations from EAGE 2025.

**Date:** Wednesday, 27 August  
**Time:** 8:00 a.m.–9:40 a.m.  
**Location:** George R. Brown Convention Center Room 361B  
**Speakers:** Multiple speakers presenting  
**Chairs:** Sandeep Chandola and Martin Widmaier  
**Fee:** Included with registration

# New Technology Showcase

George R. Brown Convention Center, Room 310

Discover innovation at its best. This showcase connects groundbreaking technologies to new markets and funding opportunities, and features new technology presentations and panels with scouts, investors, accelerators, and successful innovators.

## Tuesday, 26 August

- 2:00 p.m. **WOMEN IN TECHNOLOGY PANEL**  
**Panelists:** Maria Angela Capella, Red Tree; Andrea Crook, Optiseis; Wambui Mutoru, Equinor; Kristi McLin, ConocoPhillips; Alyssa Karotkin, Equinor; Deborah Sacrey, Auburn Energy
- 3:00 p.m. **Cold-ResStor™: Smarter Cooling for the Digital Age Powered by the Earth**  
Hamed Soroush, Teverra
- 3:10 p.m. **Open-Sources 3D PFA Software**  
Nicole Taverna, NREL
- 3:10 p.m. **EcoSeis™, enabling a reduction in land footprint and GHG emissions**  
Andrea Crook, Optiseis
- 3:20 p.m. **Space Weather Forecasts for More Accurate Oil and Gas Exploration**  
Scott McIntosh, Hale Spaceweather
- 3:30 p.m. **Platform for Real-Time Geoscience Data and AI for Smart, Fast Wells**  
Asim Siddiqui, Corva
- 3:40 p.m. **Modular Multi-Fuel Microgrid and Distributed Generation Facility (DGF) Platforms**  
Ademola Fagade, GeoPrime Energy
- 3:50 p.m. **Bridging the Innovation - Execution Gap through a collaboration-first platform**  
Rekha Patel, Xrathus
- 4:00 p.m. **Globally acclaimed geocommunication training program, Practical Geocommunication**  
Haydon Mort, Geologize
- 4:10 p.m. **Open-Sources 3D PFA Software**  
Nicole Taverna, NREL
- 4:20 p.m. **Sustainable Lithium Technology**  
Wambui Mutoru, Equinor
- 4:30 p.m. **AspenTech Subsurface Intelligence (ASI) connected to OSDU data platform**  
Emmanuel Gringarten
- 4:40 p.m. **Influencia: Maximize your social media impact**  
Michael Nash, Oklahomaware
- 4:50 p.m. **Automated Lithology: Utilization of digitally connected hardware to derive decision-ready subsurface information from cuttings**  
Benedict Geaghan, SLB

## Wednesday, 27 August

- 2:00 p.m. **NEW TECHNOLOGY TRENDS PANEL**  
**Panelists:** Nestor Santos, Chevron Technology Ventures; Alyssa Karotkin, Equinor; Rusty Gilbert, JR Gilbert Energy; Huyen Bui, Shell; Amy Henry, Eunike Ventures; Allen Bertagne, BRT Energy Advisors; John Hand, ConocoPhillips
- 3:00 p.m. **PIEScale Express: Smart, Rapid Data Ingestion & Management**  
Sashi Gunturu, Petrabytes
- 3:10 p.m. **DataMoKsha: Unleashing the Power of LLMs and Generative AI Across the Energy Value Chain**  
Sunil Garg, DataVedik
- 3:20 p.m. **Andy Cubes: Tool connecting fault and fractures to stresses**  
Molly Turko
- 3:30 p.m. **Shaleforce: AI for geothermal**  
Patrick Ng
- 3:40 p.m. **GeoGPT: LLM Gen AI for geoscience**  
Yitian Xiao
- 3:50 p.m. **Halliburton ResX: Ensemble Modeling**  
Megan Kuhn, Halliburton
- 4:00 p.m. **FIRESIDE CHAT: SUPPORTING START-UPS**  
**Panelists:** Lawson Gow, Greentown Labs, Nampetch Yamali, Chevron Technology Ventures, Haydon Mort, Geologize, Elizabeth Collins, Woodside
- 4:30 p.m. **CLARA: Discover, ask questions, generate reports from your vast array of data**  
John Boden
- 4:40 p.m. **AI Driller: Automated Drilling, frac designs, completions**  
Richard Zamora
- 4:50 p.m. **DWL: Use of Robotics, AI, and Automation for Real-Time Wellsite Geologic Analysis**  
Aaron Swanson
- 5:00 p.m. **CO<sub>2</sub> Smart: Real-Time Closed Loop Monitoring for Optimization and Risk Management**  
Behnam Jafapour, USC

# Special Events and Networking

## Monday, 25 August

### Women's Network Geology of Coffee

George R. Brown Convention Center, Room 310B  
2:00 p.m.–3:30 p.m.

### Exhibition and Icebreaker Reception

George R. Brown Convention Center, Exhibit Hall D/E  
5:30 p.m.–7:30 p.m.

Following the Opening Session head over to the Exhibition for drinks and hors d'oeuvres. Connect with old friends and colleagues or cultivate new business relationships while networking with exhibitors.

## Tuesday, 26 August

### Refreshment Breaks

George R. Brown Convention Center, Exhibit Hall D/E  
9:30 a.m.–10:30 a.m. (Tuesday–Thursday)  
and 3:00 p.m.–4:00 p.m. (Tuesday–Wednesday)

Face-to-face networking is one of the most effective ways to meet vendors, suppliers, and service providers. Grab a cup of coffee or tea and visit with industry experts, innovators, and influencers to see the latest technologies and innovations.

### End-of-Day Receptions

George R. Brown Convention Center, Exhibit Hall D/E  
5:00 p.m.–6:00 p.m. (Tuesday and Wednesday)

End your day in the Exhibition by enjoying a drink and appetizer. Meet fellow professionals, product and service providers, and business prospects to exchange ideas and gain competitive intel that will help drive your success.

### SEG Geoscientists *without Borders*® Reception

Marriott Marquis Houston, Scot Cotton  
5:00 p.m.–6:00 p.m.

Join us for drinks and hors d'oeuvres to immerse yourself in the humanitarian aspect of applied geosciences to serve the communities in need. Guests will have a chance to view short presentations and hear from student participants about how they are working to save lives from geohazards, providing safe water access and habitat management in India, Guatemala, Senegal, Vietnam, and USA. Presentations will be followed by a unique opportunity to interact with the principal investigators and students from these countries.

### SEG Near-Surface Geophysics Reception

Marriott Marquis Houston, Scot Cotton  
7:00 p.m.–10:00 p.m.

The Near Surface Geophysics Reception will include presentation of the Harold Mooney Award and the Near Surface Honorary Life Award to the 2025 recipients and introduction of the new leadership. NSG attendees and students are invited to join us as we network and enjoy some light food and beverages.

### AAPG/SEG Presidents' Reception

(by invitation only)

Hilton Americas-Houston, Grand Ballroom D/E/F  
7:30 p.m.–9:00 p.m.

## Presidential Jam

Hilton Americas-Houston, Grand Ballroom A/B/C  
9:00 p.m.–12:00 a.m.

Put on your dancing shoes and get ready to dance the night away with an evening full of music. Join your friends and colleagues for a fun-filled night of dancing. Performances brought to you by members of both AAPG and SEG.

## Wednesday, 27 August

### AAPG Foundation Forum

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

### All-Alumni Reception

Marriott Marquis Houston, Houston Ballroom 3  
5:30 p.m.–7:30 p.m.

Participating colleges and universities include:

- Rice University
- University of Colorado Boulder
- University of Miami
- University of Missouri-Rolla / Missouri University of Science and Technology

### Private Alumni Receptions

Marriott Marquis Houston  
5:30 p.m.–7:30 p.m.

- Colorado School of Mines Geophysics GP@100 Alumni Reception and Research Showcase: Houston Ballroom 4
- Texas A&M University Department of Geology & Geophysics: Scot Cotton
- Texas Tech University and the Department of Geosciences: Liberty
- University of Houston: Houston Ballroom 1
- University of Oklahoma: Fort Bend
- West Virginia University: Galveston B

#### Offsite

- The University of Kansas Department of Geology: Birch Resources, LLC, 909 Fannin St., 14th Floor, 5:30 p.m.–8:00 p.m.
- Jackson School of Geosciences at The University of Texas at Austin: Little Woodrow's EaDO, 801 St. Emanuel St., 6:00 p.m.–8:00 p.m.

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

Hilton Americas-Houston, Ballroom of the Americas D/E  
6:30 p.m.–8:00 p.m.

AAPG Latin America and Caribbean Region President, Carlos Macellari, and SEG Latin America Regional Advisory Committee Chair Marco Nieto, invite friends and members to join us for a meeting and networking reception. Enjoy light snacks and beverages, meet your leadership teams, and learn about upcoming events and educational programs.

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

Hilton Americas-Houston, Ballroom of the Americas A/B  
6:30 p.m.–8:30 p.m.





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# Breakfast and Luncheons

## All-Convention Luncheon

Topic: Leadership Dialogue  
Speaker: Sylvia Anjos  
Director of E&P, Petrobras  
Moderator: Bob Fryklund, S&P Global Commodity Insights  
Date: Tuesday, 26 August  
Time: 11:30 a.m.–1:15 p.m.  
Location: Ballroom B  
Fee: \$80

## SEG Gravity and Magnetics and Mining and Mineral Exploration Joint Luncheon

Topic: From the smallest to the largest — How nuclei help us to understand the stars  
Speaker: Philip Adsley, Assistant Professor at Texas A&M University, Department of Physics & Astronomy, and the Cyclotron Institute  
Date: Wednesday, 27 August  
Time: 11:30 a.m.–1:00 p.m.  
Location: Room 330  
Fee: \$75

## AAPG Division of Professional Affairs (DPA) Luncheon

Topic: Energy Update: Tariffs, Subsidies, and Uncertainty  
Speaker: Jesse Thompson, Energy Economist for the Dallas Federal Reserve Bank  
Date: Wednesday, 27 August  
Time: 11:30 a.m.–1:00 p.m.  
Location: Room 310B  
Fee: \$75

## Women's Network Luncheon

Topic: Beyond the Surface: Generative AI's Role in Next-Gen Subsurface Characterization  
Speaker: Kim Padeletti, Amazon Web Services  
Date: Wednesday, 27 August  
Time: 11:30 a.m.–1:00 p.m.  
Location: Room 320B  
Fee: \$75 Professionals, \$45 Students

## Women's Network Breakfast

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

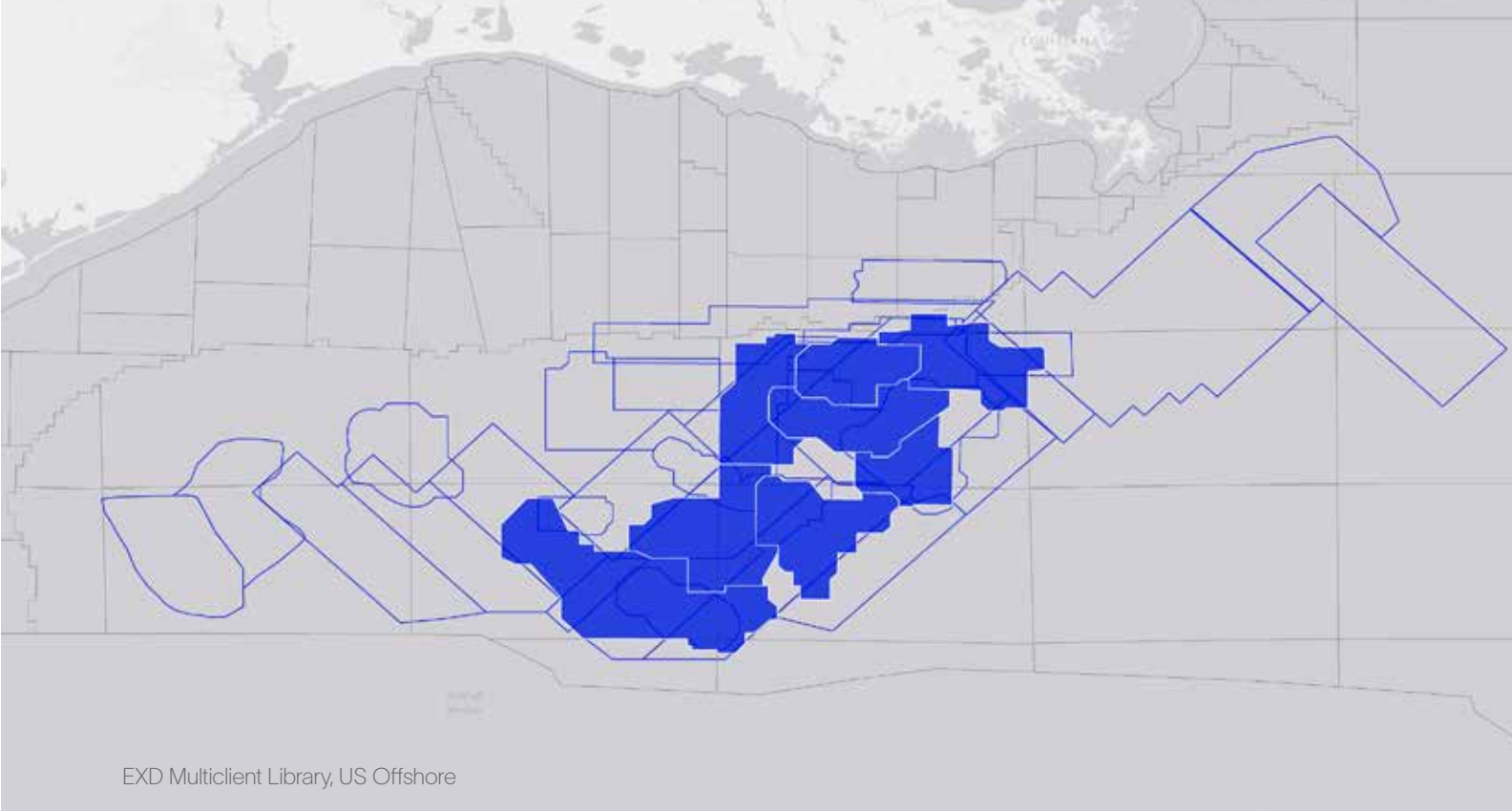
Date: Thursday, 28 August  
Time: 7:00 a.m.–10:00 a.m.  
Location: Phoenicia MKT  
Fee: \$15 Early and \$20 Walk-Ups

## SEG Development and Production Luncheon

Topic 1: Continuous improvement and value maturation of 4D seismic in mature fields  
Speaker 1: Maria Tatanova-Malhaire, Principal Production Geophysicist at Shell  
Topic 2: OBN for a passive margin? The streamer to seafloor transition story in Guyana  
Speaker 2: William A. Burnett, Geophysics Integrator at ExxonMobil  
Date: Thursday, 28 August  
Time: 11:30 a.m.–1:00 p.m.  
Location: Room 330  
Fee: \$75

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

Topic: The Relationship of Geology to Produced Water Composition and Quality  
Speaker: Kristie McLin  
Director, Subsurface Technology Development ConocoPhillips  
Date: Thursday, 28 August  
Time: 11:30 a.m.–1:00 p.m.  
Location: Room 310B  
Fee: \$75



# Explore the Offshore U.S. with SLB Exploration Data

- [Experience a step-change in imaging technology.](#) Discover our engagement program featuring ultralong-offset, elastic full-waveform inversion (EFWI) and ocean-bottom node (OBN) acquisition, providing continuous coverage from Green Canyon to Keathley Canyon
- [Comprehensive data coverage.](#) Access both wide-azimuth (WAZ) and recently reimaged seismic data to illuminate complex sub-salt targets.
- [Data is available for the December 2025 lease sale.](#)

**Visit us at Booth #1223**



Find out more at  
[slb.com/multiclient](https://slb.com/multiclient)

# Carbon Management Pavilion

Located at the front of the Exhibition Hall, the Carbon Management Pavilion is your destination for the latest in CCUS innovation. New this year, attendees can explore core samples from active carbon capture, utilization, and storage (CCUS) projects. The pavilion will also feature six themed sessions, each showcasing dynamic vendor presentations followed by engaging panel discussions led by industry operators.



## Tuesday, 26 August

9:15 a.m.–9:35 a.m. **Unlocking Carbon Storage Potential: Harnessing Legacy Data, Cutting-Edge Seismic, and Critical Well Information for CCUS Success**  
Ovation Data | James Laming, Vice President Global Operations

**Session Theme:** Complimentary Geophysics: Seismic and Non-Seismic Methods

10:00 a.m.–10:20 a.m. **Multi-Technology Imaging for Efficient & Effective MMV Plans**  
Optiseis | Andrea Crook, CEO

10:20 a.m.–10:40 a.m. **Legacy Insights to Modern CCS Evaluation: An Integrated Approach to Optimising Subsurface Suitability Analysis**  
Geoex MCG | Mike Powney, Geoscience Manager

10:40 a.m.–11:00 a.m. **Nexus of Carbon and Seismicity: Intricate Balance of Subsurface Activity**  
Instrumental Software Technologies, Inc. | Josh Stachnik, Chief Geophysicist

11:00 a.m.–11:20 a.m. **To Image or Not to Image? The Dilemma of CCS Surveillance**  
Spotlight | Habib Al Khatib, CEO

11:20 a.m.–12:00 p.m. **PANEL DISCUSSION**  
**Panelists:** Mike Powney (Geoex MCG), Josh Stachnik (ISTI), Habib Al Khatib (Spotlight)  
**Moderator:** Michel Verliac (TotalEnergies)

12:30 p.m.–1:10 p.m. **PANEL: Leading the Charge in CCS: Women Driving Innovation and Change**  
**Panelists:** Jeniffer Masi (Geoex MCG, Chief Geoscientist), Tais Soares (Vallourec New Energies, North America Business Development Manager), Sougata Halder (TGS, New Energies Project Management)  
**Moderator:** Maria Angela Capello (Red Tree Consulting LLC)

1:20 p.m.–1:40 p.m. **Fueling the Energy Workforce: The Value of Technical Experience & Exposure Within your Education**  
Oklahoma State University/SEG EVOLVE | Magnolia McLaughlin, Student/Rising Early Professional

**Session Theme:**

2:40 p.m.–3:00 p.m.  
3:40 p.m.–4:00 p.m.

4:10 p.m.–5:00 p.m.

**Core for Carbon Management Projects**

Seequent | Kathleen Gould, Booth Tour  
**Significance of Core Data in Characterizing Fluvial Reservoirs for CO<sub>2</sub> Sequestration: An Example from the Cranfield Pilot Project, Mississippi, USA**  
Bureau of Economic Geology (BEG), Univ. of Texas at Austin | Carlos A. Uroza, Research Scientist Associate  
**Core Viewing with BEG Experts**

## Wednesday, 27 August

9:15 a.m.–9:35 a.m. **Geological Carbon Storage: Scope and Challenges in India**  
CSIR-National Geophysical Research Institute | Nimisha Vedanti, Chief Scientist

9:35 a.m.–9:55 a.m. **Fit For Purpose Seismic Acquisition for Carbon Storage Applications**  
MicroSeismic, Inc. | Peter M. Duncan, President and CEO

**Session Theme:** Winning the Race for Pore Space: Class I v. Class II v. Class VI

10:20 a.m.–10:40 a.m. **The Well that Wasn't: Profiting from Not Producing**  
Haas and Cobb Petroleum Consultants | Melissa Northcott, Principal Geologist

10:40 a.m.–11:00 a.m. **Balancing Injection Projects and Pore Space Competition in the Gulf Coast**  
Geostock Sandia | Sylvain Riba, CEO

11:00 a.m.–11:20 a.m. **The Role of Class II AGI Wells in Carbon Sequestration**  
BKV Corporation | Grace Bastianon, Geophysical Advisor

11:20 a.m.–12:00 p.m. **PANEL DISCUSSION**

**Panelists:** Melissa Northcott (Haas and Cobb Petroleum Consultants), Sylvain Riba (Geostock Sandia), Grace Bastianon (BKV Corporation)  
**Moderator:** Caroline Wachtman (Oxy)



**Session Theme:** **Risk Management for CCS/CCUS projects**  
 1:20 p.m.–1:40 p.m. ***A New Paradigm for Quantitative Risk Assessment of CCS Projects***  
 Rose Subsurface Assessment | Juliet Irvin, Principal Consultant  
 1:40 p.m.–2:00 p.m. ***CCUS Project Risk in Focus: Key Strategies and Risk Finance Considerations***  
 Marsh | Bill Kost, Energy & Power Advisory Leader–SVP  
 2:00 p.m.–2:20 p.m. ***Coupled Flow-Geomechanics Simulations for Predicting Leakage Pathways***  
 Ridgeline Engineering, LLC | Kyle Trainor, Principal Consultant & President  
 2:20 p.m.–3:00 p.m. **PANEL DISCUSSION**  
**Panelists:** Peter Carragher (Rose Subsurface Assessment), Bill Kost (Marsh), Kyle Trainor, (Ridgeline Engineering, LLC)  
**Moderator:** Camelia Knapp (Oklahoma State University)  
 3:05 p.m.–3:25 p.m. ***Review of Environmental Testing and Monitoring Plans Proposed for UIC Class VI Sites***  
 GSI Environmental Inc. | Danny Kingham, Senior Associate Hydrogeologist

**Session Theme:** **Visualization Tools for Impactful Carbon Management Projects**  
 3:40 p.m.–4:00 p.m. ***VSP's - An Up Close Look***  
 Optiseis Solutions | Shane Bossaer, VSP Manager  
 4:00 p.m.–4:20 p.m. ***Visualizing Data Availability for Carbon Management Assessment and Operations***  
 Katalyst Data Management | Jess Kozman, Senior Principal Consultant  
 4:20 p.m.–4:40 p.m. ***Surface Fiber Imaging for CCS***  
 Viridien | Trevor Coulman, Business Development Associate  
 4:40 p.m.–5:20 p.m. **PANEL DISCUSSION**  
**Panelists:** Jess Kozman (Katalyst Data Management), Trevor Coulman (Viridien)  
**Moderator:** Rachael Moreland (S&P Global)

## Thursday, 28 August

9:15 a.m.–9:35 a.m. ***Unlock CCS Potential: Risk Reduction through Data Completeness and Auditability***  
 Ovation Data | Jasmine Tran, Head of Strategic Partnerships and Global Key Accounts  
 9:40 a.m.–10:00 a.m. ***The RegReady Map Tool: How Ready Is Your State for Geologic Carbon Sequestration?***  
 GSI Environmental Inc. | Danny Kingham, Senior Associate Hydrogeologist

**Session Theme:** **Software for the Long Game: Visualization and Databases for CCS Projects**  
 10:20 a.m.–10:40 a.m. ***Generative AI for CCUS Permitting***  
 ClassVI.ai | Anya Shvilpe, Chief Product Officer  
 10:40 a.m.–11:00 a.m. ***Timely Subsurface Monitoring: A Critical Need for Widespread Utilization of Subsurface***  
 Teverra LLC | Qiuliang Yao, Rock Physics Lead  
 11:00 a.m.–11:20 a.m. ***Digital Management of Multiple Platforms for CO<sub>2</sub> Numerical Simulation***  
 Orinda Geophysical | William Abriel, CEO  
 11:20 a.m.–12:00 p.m. **PANEL DISCUSSION**  
**Panelists:** Anya Shvilpe (ClassVI.ai), Qiuliang Yao (Teverra LLC), William Abriel (Orinda Geophysical)  
**Moderator:** Rachael Moreland (S&P Global)

**Session Theme:** **Optimizing Low Carbon EOR Projects**  
 1:20 p.m.–1:40 p.m. ***Low-Carbon Additive-EOR: Innovation and Scale-Up Through Strategic Partnerships***  
 The Dow Chemical Company | Amit Katiyar, Technology Leader–EOR  
 1:40 p.m.–2:00 p.m. ***Optimizing Low Carbon EOR Projects: A Laboratory Perspective***  
 Intertek Westport Technology Center | Yani Carolina Araujo de Itriago, Program Manager EOR and Flow Assurance Services  
 2:00 p.m.–2:20 p.m. ***Tracer-Based CO<sub>2</sub> Management: Differentiation, Detection, and Digital Verification***  
 Tracerco | Fredrick Tyler, Global Sales Executive  
 2:20 p.m.–3:00 p.m. **PANEL DISCUSSION**  
**Panelists:** Amit Katiyar (The Dow Chemical Company), Yani Carolina Araujo de Itriago (Intertek Westport Technology Center), Fredrick Tyler (Tracerco)  
**Moderator:** Caroline Huet (Oxy)



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# Digitalization Pavilion

Explore three full days of cutting-edge content in the Digitalization Pavilion, featuring key themes that are shaping the future of geoscience: Data Standards, High Performance Computing, Generative AI, and Digital Innovation for Energy Production and Transition. Don't miss this opportunity to see digital transformation in action!



## Tuesday, 26 August

- 9:15 a.m.–9:35 a.m. **AAPG KEYNOTE**  
*Impact of AI/ML on Technology Trends in Geoscience*  
Rocky Ridge Resources, Inc. | Rocky Roden, Owner
- 10:20 a.m.–10:40 a.m. **History of WITSML and current Interoperability in Drilling and Completion Operations with WITSML 2.1 and ETP 1.2**  
Bardasz | Robert Schave, Director of Operations & IT
- 10:40 a.m.–11:00 a.m. **Industry Transformation in the Era of AI**  
Microsoft | Maitri Erwin, Energy Industry Advisor
- 11:00 a.m.–11:20 a.m. **ExxonMobil: Our Past and Future with the OSDU Data Platform**  
ExxonMobil | Jacob Jackson, OSDU Product Manager
- 11:20 a.m.–12:00 p.m. **PANEL DISCUSSION**  
**Panelists:** Robert Schave (Bardasz), Maitri Erwin (Microsoft), Jacob Jackson (ExxonMobil)
- 1:20 p.m.–1:40 p.m. **Powering the Future: Is AI Just Buzz or the Real Deal in Energy?**  
NVIDIA | Nefeli Moridis, Global Head of Subsurface Energy
- 1:40 p.m.–2:00 p.m. **AI Agents and Agentic AI: Keeping Pace with the Changing Face of "Digital"**  
Chadwick Holmes, Sr. Manager, Data Technology & AI
- 2:00 p.m.–2:20 p.m. **Next Generation Data Transformation: Evergreen Data Solution**  
Viridien | Porsche Adams, Project Leader
- 2:20 p.m.–2:40 p.m. **Agentic AI in Action: Context-Driven AI for Real-Time Reservoir Optimization**  
Microsoft | Julian Moreno, Senior Industry Advisor  
Energy & Resources
- 2:40 p.m.–3:00 p.m. **Next-Generation FWI for Onshore and Offshore Applications**  
S-Cube | Christos Mavropoulos, Cloud and Machine Learning Lead
- 4:00 p.m.–4:20 p.m. **AWS PANEL DISCUSSION**
- 4:20 p.m.–4:40 p.m. **Maximizing Digital Transformation: The Power of AI-Ready Data**  
Ovation Data | Jasmine Tran, Head of Strategic Partnerships and Global Key Accounts

## Wednesday, 27 August

- 9:15 a.m.–9:35 a.m. **SEG KEYNOTE**  
*Address from the President*  
SEG | Joseph Michael Reilly, President
- 10:20 a.m.–10:40 a.m. **Practical Applications for AI in the E&P Industry**  
S&P Global | Rachel Moreland, Vice President-Global Energy Software & Technology Strategy
- 10:40 a.m.–11:00 a.m. **The Future of Energy is Here: How AI is Driving the Energy Transition**  
Microsoft | Rob Schapiro, Senior Director, Energy Partnerships
- 11:00 a.m.–11:20 a.m. **Enriching Your Data Using Artificial Intelligence Builds a Foundation of Trust, Transparency, and Timeliness**  
i2k Connect | Eric Schoen, Chief Technical Officer
- 11:20 a.m.–11:40 a.m. **AI Assisted Data Pipelines**  
Bahwan Cybertek | Clay Harter, CTO
- 11:40 a.m.–12:00 p.m. **The Power Behind the Image: HPC for Geoscience**  
Viridien | Kavin Nimsaila, Senior Research Advisor
- 1:20 p.m.–1:40 p.m. **Visual Data Science and Geoscience in Energy**  
Spotfire | Michael O'Connell, Chief Analytics Officer
- 1:40 p.m.–2:00 p.m. **Drill Smarter: How ROGII's Cloud Solutions Transform Geosteering & Drilling Practices**  
ROGII | Igor Uvarov, CEO
- 2:20 p.m.–3:00 p.m. **PANEL DISCUSSION**  
**Panelists:** Michael O'Connell (Spotfire), Igor Uvarov (ROGII)  
**Moderator:** Chris Hanton (Amazon)
- 3:40 p.m.–4:00 p.m. **Optimizing Seismic Survey Design Part 1**  
Optiseis Solutions | Andrea Crook, CEO
- 4:00 p.m.–4:20 p.m. **Why Geophysics needs a Reasoning Large Language Model**  
i2k Connect | Joshua Eckroth, Chief Research Engineer
- 4:20 p.m.–4:40 p.m. **Building GenAI Knowledge Management Systems: Challenges and Best Practices**  
NVIDIA | Pavel Dimitrov, Solutions Architect Manager
- 4:40 p.m.–5:00 p.m. **Unlocking Subsurface Insights: Case Studies in Computer Vision for the Energy Sector**  
Occidental Petroleum | Ali Karimi, Lead Machine Learning Engineer

## Thursday, 28 August

- 9:15 a.m.–9:35 a.m. **HPC and AI KEYNOTE**  
**The HPC-AI Society, Purpose & Mission**  
The HPC-AI Society | Kannan Venkataraman, Vice-President
- 10:20 a.m.–10:40 a.m. **Optimizing Seismic Field Operations Part 2**  
Optiseis Solution | Alyson Yip, Geophysicist & GIS Analyst
- 10:40 a.m.–11:00 a.m. **RAG Is Not All You Need. How We Built Successful Chat.**  
i2k Connect | Joshua Eckroth, Chief Research Engineer
- 11:00 a.m.–11:20 a.m. **Building Tomorrow's Energy Operations: How Well-Organized, Integrated Data Drives Success, Future-Proofing, and Sustainable Growth**  
Ovation Data | James Laming, Vice President Global Operations
- 11:20 a.m.–11:40 a.m. **Blockchain For Energy**
- 11:40 a.m.–12:00 p.m. **A Midland Basin Case Study Predicting Reservoir Properties Direct from Seismic Gathers - A Rock Physics Guided Machine Learning Approach**  
GeoSoftware LLC | Ted Holden, Region Technical Manager - North America
- 1:20 p.m.–1:40 p.m. **Make Better and Faster Business Decisions with the Energy Industry Supported Trusted Data Ecosystem (OSDU)**  
RockNRG LLC | Ryan Jarvis, Owner and CTO

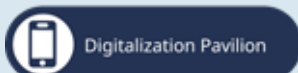


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## Booth #1557

# Geothermal Hub

**Tap into the future of sustainable energy at the Geothermal Hub!**  
Join us for three full days of programming dedicated to geothermal exploration, subsurface innovation, and real-world project development. Hear from experts advancing geothermal technology and discover how geoscience is powering the global energy transition. Don't miss the conversations shaping geothermal's next chapter.

## Panels and Networking Socials Tuesday, 26 August

- 1:00 p.m.–2:00 p.m.

**Data Sharing: Improving Models by Improving Inputs**

**Panelists:** Mohammad (Jabs) Aljubran, Geothermal Researcher, National Renewable Energy Lab; Nicole Taverna, Geothermal Data Scientist, National Renewable Energy Lab; Paul Schwering, Subsurfer, Pacific Northwest National Lab

**Moderator:** Angela Seligman, Senior Geoscientist, Clean Air Task Force (CAFT)

Unlocking the potential of superhot rock geothermal depends on high-quality models, and these models are only as good as the data that feeds them. This panel explores how better data sharing across institutions, industries, and disciplines can lead to more accurate and reliable simulations. By improving model inputs, we can accelerate innovation, reduce risk, and realize the potential of superhot rock geothermal faster.
- 2:15 p.m.–3:15 p.m.

**Drilling Innovation in Diverse Superhot Geodynamic Settings**

**Panelist:** PV (Suri) Suryanarayana, Chairman, Blade Energy Partners; Roman Shor, Associate Professor, Texas A&M University

**Moderator:** Jenna Hill, Superhot Rock Geothermal Innovation Manager, Clean Air Task Force (CAFT)

Drilling into superhot rock in diverse geodynamic settings demands bold innovation to overcome extreme heat, pressure, and rock variability. This panel explores how breakthroughs in drilling technologies enable access to untapped geothermal resources in new regions. Expanding where we can drill is key to scaling superhot geothermal globally - unlocking its potential as a major clean energy source.
- 3:30 p.m.–4:30 p.m.

**Oil and Gas to Superhot: Exploring the Opportunities**

**Panelists:** Greg Leveille, Chief Technology Officer, ConocoPhillips (Retired); Pradeep Ashok, Senior Research Scientist, University of Texas at Austin; Chuck Wright, Corporate R&D Manager, NOV

**Moderator:** Angela Seligman, Senior Geoscientist, Clean Air Task Force (CAFT)

The oil and gas industry has the infrastructure, supply chains, and skilled workforce that can accelerate the rise of superhot rock geothermal. This panel explores how strengths from fossil energy can be used to power geothermal's expansion. Bridging these worlds offers a fast track to scalable, deep geothermal deployment.
- 4:30 p.m.–5:00 p.m.

**Geothermal Hub: Networking Social**

Continue the conversation and connections as we delve deeper into the future of clean energy. This networking session is a chance to

Presented by:



**GEO THERMAL RISING**

### Companies Participating in the Geothermal Hub:

Geothermal Rising  
MicroThermal Energy  
NOV  
Clean Air Task Force (CATF)  
National Renewable Energy Lab  
Pacific Northwest National Lab  
Blade Energy Partners  
Texas A&M University  
Ignis H2 Energy Inc.  
Texas Bureau of Economic Geology  
Geothermal Energy Advisors LLC.  
Ormat Technologies  
Sequent  
Teverra  
Wintermoon Geotechnologies  
Bird Geophysical  
RESPEC  
ResFrac  
Bentley Systems  
Exceed Geo Energy  
400C Energy  
Tidal Wave Technologies  
RAPID at UT Austin  
Weatherford  
Eavor Technologies, Inc.  
Vallourec New Energies  
Great Basin Center for Geothermal Energy

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Hub schedule





meet others working across disciplines, explore collaboration opportunities, and discuss emerging priorities not yet covered in panel discussions.

## Wednesday, 27 August

9:00 a.m.–10:00 a.m. **WING - A Panel Discussion on The Geothermal Good Life**

**Panelists:** Lauren Lopez, Business Development Manager, NOV; Paul Schwering, Subsurfer, Pacific Northwest National Lab; Analiese Andersen, MicroThermal Energy Account Executive, MicroSeismic Inc.; Malcolm I. Ross, Strategic Marketing Director and Black Swan Detector, Eavor Technologies, Inc.

**Moderator:** Elizabeth Cambre, Business Development Manager, New Energies, Vallourec New Energies

Our mission is to promote the education, professional development, and advancement of women in the geothermal community. Please attend this conversation to learn about the origins and objectives of Women In Geothermal (WING), the initiatives and committees of the WING USA Chapter, and most importantly the benefits and impacts you can experience by becoming a WING member!

3:00 p.m.–4:00 p.m. **Acquiring Geophysics for Geothermal: Unexpected Challenges and Surprising Solutions**

**Panelists:** Josh Sellars, Project Geophysicist, Seequent; Kelly Blake, Resource Manager, Exploration Operations and Geophysics, Ormat Technologies

**Moderator:** Philip Ball, Managing Director, Geothermal Energy Advisors LLC

Geophysical data acquisition for geothermal exploration presents unique technical and logistical challenges that differ significantly from oil and gas or mining applications. This panel examines the real-world obstacles encountered when deploying seismic, electromagnetic, gravity, and other geophysical methods in geothermal environments, from high-temperature equipment failures to complex subsurface geology interpretation. The discussion will cover both greenfield exploration and brownfield development scenarios, addressing the evolving needs of the geothermal industry as it scales up globally.

4:00 p.m.–5:00 p.m. **Geothermal Hub: Networking Social**  
Converse with geothermal geophysicists, geologists, and industry professionals. This networking session is an opportunity to build relationships to support your work in geothermal exploration, development, and operations.

## Presentations

### Tuesday

9:30 a.m.

**Drill Bits for Geothermal Applications**, Walker Olson, NOV

10:00 a.m.

**The “Clash” Between Oil and Gas and Geothermal and How to Overcome This**, Nasikul Islam, Exceed Geo Energy

10:30 a.m.

**Drilling Fluid Temperature Control**, Reza Fard and Mark Canlas, NOV

11:00 a.m.

**Superhot-Capable Stimulation and Flow Control Technologies for Economically Viable EGS**, Blake Wood and Jabs Aljubran, 400C Energy

11:30 a.m.

**High-Temperature Tools for Geothermal Drilling and Formation Evaluation Services**, Shaun Toralde, Weatherford

2:00 p.m.

Geothermal Hub: Networking Break

3:15 p.m.

Geothermal Hub: Networking Break

### Wednesday

10:00 a.m.

**Microseismic Monitoring for EGS: Choosing the Right Technology**, Analiese Andersen, MicroSeismic Inc.

10:30 a.m.

**Building the Next Generation Energy Company**, Marcus Oesterberg, Ignis H2 Energy Inc.

11:00 a.m.

**Regional Geothermal Resource Assessment and Play Fairway Mapping for the Gulf Coast and East Texas**, Shuvajit Bhattacharya, HotRock, Bureau of Economic Geology, The University of Texas at Austin

11:30 a.m.

Geothermal Hub: Networking Break

1:00 p.m.

Geothermal Hub: Networking Break

1:30 p.m.

**Geophysical Workflows to Reduce Uncertainty in the Depth Prediction to [Petrothermal] Thermal Reservoir**, Philip Ball, Geothermal Energy Advisors LLC  
**Optimized Stimulations of Enhanced Geothermal System Doublet**, Jon McKenna, MicroSeismic Inc.

2:00 p.m.

2:30 p.m.

**Field-Scale Innovation in Geothermal Geophysics: Lessons from Ormat**, Kelly Blake, Ormat Technologies

### Thursday

10:30 a.m.

**The Geothermal Opportunity**, Joe Batir, Teverra

11:00 a.m.

**Meet Your New Geothermal Exploration Best Friends: The Utility of Gravity and Magnetics to Jumpstart Geothermal Exploration**, Michal Ruder, Wintermoon Geotechnologies

11:30 a.m.

**Machine Learning Applications for Predicting Heat Flow and Thermal Conductivity in Northwest U.S.**, Dale Bird, Bird Geophysical

1:00 p.m.

**From Concept to Confidence: Accelerating Geothermal Modeling from Structure to Simulation**, Samantha Sellars, Seequent

1:30 p.m.

**Seasonal Storage in Middle-Deep Geothermal Systems**, Roman Shor, Texas A&M University

2:00 p.m.

**Geothermal Power: The Next Frontier**, Matthew Minnick, and Saurabh Agarwal, RESPEC

2:30 p.m.

**Advancing Enhanced Geothermal Systems: Leveraging Oil and Gas Technology to Unlock Heat at Scale**, Koenraad Beckers, ResFrac

3:00 p.m.

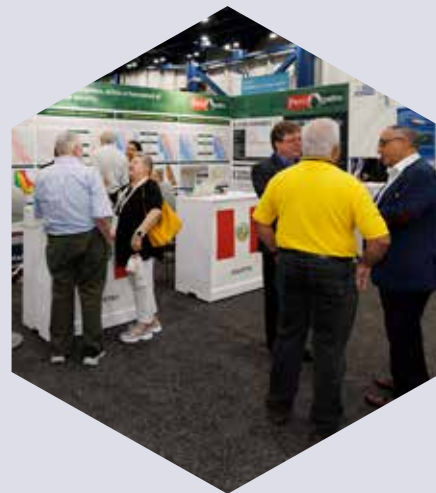
**A Digital Framework for Integrated Geothermal Asset Performance**, Sharon Soler, Bentley Systems

# Global Energy Opportunities Pavilion

## Explore Global Opportunities at the GEO Pavilion

The GEO Pavilion features an International Theatre with in-depth presentations from exhibitors around the world.

Attendees will have the unique opportunity to explore a wide range of energy prospects and connect directly with country representatives who offer deep knowledge of local geology. Walk away with valuable insights into today's global energy landscape and emerging trends.



**BELIZE** / Ministry of Natural Resources, Petroleum & Mining  
***Belize Corozal Basin: Proven Plays, New Insights & Untapped Potential***  
Ashley Middleton, Geologist, Geology & Production Department



**EL SALVADOR** / Rio Lempa Hydroelectric Commission  
***From Untouched Frontier to Active Opportunity-Unlocking Offshore Potential in a Strategic Margin***  
Adrian Mayen, Geophysicist, Head of Hydrocarbon Studies Unit



**ENVOI**  
***Global Deals***  
Martin Riddle, Technical Director



**GAMBIA** / Republic The Gambia  
***Unlocking Potential: Exploration Opportunities in The Gambia***  
Jerreh Barrow, Director General, Petroleum Commission, The Gambia



**GHANA** / Petroleum Commission  
***Exploration & Production Potential in Ghana***  
Ali Yahaya-Amin



**GEOPARTNERS LTD**  
***Revealing Untapped Potential in a new ERA of Exploration, Offshore West Africa***  
Jim Gulland, Managing Director



**INDIA** / UH DGH Center for Hydrocarbon Exploration  
***India's Bid Round X: An Opportunity to Acquire some of the Most Promising Frontier Acreage in the World***  
David Hume, Research Manager



**MOROCCO** / Onhym  
***Unlocking Morocco's Promising Oil & Gas Potential***  
Didi Salwa, Offshore Evaluation Division Manager



**MOZAMBIQUE** / INP  
***Mozambique's Prospectivity: Unlocking Untapped Potential***  
Ezequias Matlava, Exploration Manager



**NEWFOUNDLAND & LABRADOR** / Department of Industry, Energy & Technology  
***Newfoundland & Labrador Energy Update 2025***  
Jovan Petrovic, Director of Petroleum Geosciences



**NOVA SCOTIA** / Department of Energy  
***Emerging Resource Development Opportunities***  
Natasha MacAdam, Senior Geophysicist



**OVATIONDATA**  
***Maximizing Digital Transformation: The Power of AI ready Data***  
Jasmine Tran, Head of Strategic Partnerships & Global Key Accounts



PERU / Perupetro  
**Exploration Opportunities in Peru**  
Ysabel Calderon, Exploration Contracts Executive



SOUTH AFRICA / Petroleum Agency SA  
**Exploration Opportunities in South Africa**  
Sean Davids, Lead Geoscientist, Resource Management



SURINAME / Staatsolie (Offshore)  
**New Opportunities Beyond the Golden Lane Offshore Suriname**  
Mitch Jie-A-Looi, Team Lead Open Acreage Management



TRINIDAD & TOBAGO / Ministry of Energy & Energy Resources  
**2025 Deep Water Competitive Bidding Round**  
Kimberlee London, Sr. Geologist, Resource Management Division



TUNISIA / ETAP  
**Tunisia Exploration Opportunities**  
Chadha Merdassi, Geologist



URUGUAY / ANCAP  
**E & P Offshore Uruguay: Insights, Advances & Path Forward**  
Santiago Ferro, Energy Transition Manager



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# Near-Surface Pavilion

Located at the front center of the Exhibition Hall, this pavilion features technical panels covering a wide range of topics, including infrastructure, geohazards, hydrogeophysics, and climate impacts on the built environment. Additional activities are in the works — be sure to visit the Near-Surface Geophysics Pavilion webpage for the latest program updates.



## Monday, 25 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. **Summer of Applied Geophysics Experience (SAGE)**  
John Furguson, UT, Dallas

## Tuesday, 26 August

- 9:00 a.m.–9:10 a.m. Laurie Whitesell, SEG–Near Surface Geophysics
- 9:10 a.m.–9:20 a.m. **Sustainable Solutions for Seismic Imaging**  
Andrea Crook, OptiSeis
- 9:20 a.m.–9:30 a.m. **Digital Workflows for Groundwater Management: Leveraging Advanced Modeling and Data Integration**  
Laura Quigley, Seequent
- 9:30 a.m. – 9:40 a.m. **SEAM LEAP**  
Michael Oristaglio, SEAM
- 9:40 a.m.–9:50 a.m. **eXtreamer — System Expansion for the Future**  
Tommy Rosa, Geometrics
- 10:00 a.m.–10:20 a.m. **eXtreamer**  
Shawn Rice, Teledyne Marin
- 10:30 a.m.–11:50 a.m. **Net Zero Emissions Panel – The Future is Bright for Geophysics**  
**Panelists:** Adriana Citlali Ramirez, SEG; John Bradford, Colorado School Mines; Derek Gonsuron, S&P Global
- This panel will discuss the factors driving the energy transition and subsurface technologies that impact energy transition projects, including CCS, geothermal, minerals, wind, and nuclear.
- 12:00 p.m.–1:00 p.m. **Near Surface Geophysics Community Meeting**
- 1:10 p.m.–1:20 p.m. **GEOSTUFF Developments**  
Doug Crice, GEOSTUFF
- 1:20 p.m.–1:30 p.m. **Development of a Small Vibrator for use in Shallow Imaging Projects**  
Mark Davidson, Telemark Energy Services
- 1:30 p.m. – 1:50 p.m. **Decoding Near Surface Seismic Complexities: Insights from the Permian Basin to the Arabian Peninsula**

2:00 p.m. – 2:10 p.m.

Gabriele Busanello, SLB

### **Advances in High Resolution Near Surface Marine Geophysical Data and Interpretation**

Shane Smith, Fugro

3:30 p.m.–5:00 p.m.

### **Agrogeophysics Panel**

**Panelists:** Barry Allred, Ohio State University; Solomon Ehosioko, University of California, Davis; Larisa Golovko, Landvisor and GeoTools LLC; Javier Peralta, Ramboll

The panel on agrogeophysics aims to discuss the role of geophysics in agriculture and how the use of technology such as drones, ML/AI, etc. help to determine infiltration of water, nutrients, pesticides to address groundwater use and impacts. Also, the panel will discuss how the use of geophysics can reduce the amounts of pesticides and strategically place proper amounts of fertilizers, etc. We will also tie into the discussion the best practices and state of the art for geophysics in agriculture.

## Wednesday, 27 August

- 9:00 a.m.–9:10 a.m. **Near Surface Geophysics**  
Laurie Whitesell, SEG
- 9:30 a.m.–9:40 a.m. **Interpreting Shallow Seismic Surveys: A Geometry Comparison Case Study**  
Michelle Montano, OptiSeis
- 9:40 a.m.–9:50 a.m. **MagElement**  
Tiffany Bachtel, Geometrics
- 10:00 a.m.–10:10 a.m. **Offshore Infrastructure Assessment Post-Hurricane Study for Deep Learning Based Three-Dimensional Inversion of Magnetic Data**  
Souvik Mukherjee, EmPact-AI
- 10:30 a.m.–11:50 a.m. **Near Surface Geophysics Student Career Panel**  
**Panelists:** Nicolette Filippone, Rutgers University; Cathy Truffert, IRIS Instruments; Jose Arce, Arce Geofísicos
- This panel addresses topics relevant to students entering careers and some of the challenge and opportunities for near surface geophysics students in a variety of endeavors.
- 12:00 p.m.–1:00 p.m. **Hydrogeophysics Meeting**



1:10 p.m.–2:40 p.m.

***Cryogeophysics: Geophysical Characterization in Cold Regions Panel***

This panel focuses on the use of near-surface geophysics to support site characterization, infrastructure development, and engineering design in Arctic, Alpine, and other cold-region environments. Panelists will discuss applications of geophysical methods—including ground-penetrating radar, electrical resistivity, seismic, and electromagnetic techniques—for mapping permafrost extent, identifying subsurface ice, assessing ground stability, and monitoring freeze-thaw processes. The session will highlight both field challenges and innovative solutions relevant to working in frozen ground and seasonally dynamic terrains.

2:50 p.m.–3:10 p.m.

***UHR Streamer***

Shawn Rice, Teledyne Marine

3:30 p.m.–5:00 p.m.

***SEG-AEG Climate Change Deformation Impacts on Infrastructure and the Built Environment Panel***

**Panelists:** Jacob Sheehan, Schnabel Engineering; Mark Higgins, Exponent; Kathryn Murdock, Exponent; Phillip Sinclair, Terracon

The impact of climate change on infrastructure from roads, bridges, tunnels, rail lines as well as building foundations and stability cannot be underestimated. Consequences of climate change from flooding, differential compaction, erosion, slope failure, storm-surge and rising sea-level to premature deterioration of materials caused by increased freeze-thaw cycles, increased moisture, and extreme temperatures can be observed worldwide. In areas characterized by clay soils like those encountered in and around Houston, where expansion and contraction of the overburden materials modify the competency of the bearing surfaces, degrading foundations and impacting infrastructure that over time can contribute to damage and failure on the urban environment. This panel discussion will focus on identifying and addressing impacts to the subsurface caused by climate related issues, especially the role of clay soils.

5:10 p.m.–5:20 p.m.

***Geostuff Developments***

5:20 p.m.–5:30 p.m.

Doug Crice, GEOSTUFF

***Development of a Small Vibrator for use in Shallow Imaging Projects***

Mark Davidson, Telemark Energy Services

5:30 p.m.–5:40 p.m.

***Digital Workflows for Groundwater Management: Leveraging Advanced Modeling and Data Integration***

Laura Quigley, Seequent

5:40 p.m.–5:50 p.m.

***Summer of Applied Geophysics Experience (SAGE)***

John Furguson, UT, Dallas

**Thursday, 28 August**

9:00 a.m.–9:10 a.m.

Laurie Whitesell, SEG, Near Surface Geophysics

9:10 a.m.–9:20 a.m.

***Summit on Drone Geophysics and UAVs and Drones in the Geosciences***

Laurie Whitesell, SEG

10:30 a.m.–11:50 a.m.

***UAV and Drone Applications in the Geosciences Panel***

**Panelists:** Nathan Campbell, EDCON-PRJ; Juan Ortega, Collier Geophysics; Yuxin Wu, Lawrence Berkely National Laboratory

This panel will discuss the various applications for drones in geoscience research and industrial applications as well as some of the challenges and opportunities the use of various geophysical sensors has in solving the customer's objectives. The focus will be on case studies.

1:20 p.m.–2:50 p.m.

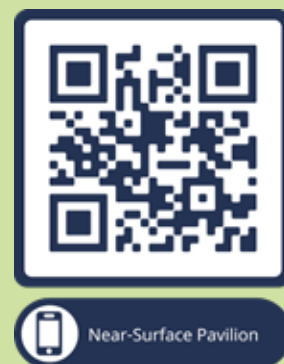
***Novel Geophysical Sensors and UAV Technologies Panel***

**Panelists:** Ty Audronis, Tempest Droneworx; Aaron Becker, University of Houston; Shuhab Khan, University of Houston

This panel is designed to address the next generation of research into improved UAVs, geophysical sensors for both on and off planet, and technologies that are moving drones forward in their capabilities to gather and generate data for geosciences and related fields.



**Scan for the latest  
information or use  
the mobile app.**



# Short Courses

## Expand Your Expertise with IMAGE Short Courses

Get ahead in your career with IMAGE's expert-led short courses, designed to deliver practical, in-depth training on today's most relevant geoscience topics. Whether you're brushing up on fundamentals or diving into advanced techniques, these courses offer hands-on learning and direct access to industry thought leaders. Don't miss the chance to sharpen your skills and gain valuable insights before the main event kicks off.

SC #	Title	Instructor(s)	Dates   Times Location	Fees
SC-01	Chemometric Tools to Establish Petroleum Systems, Predict Physical Properties, and De-Convolute Mixed Production (AAPG)	Kenneth E. Peters, SLB NExT Training Brian G. Rohrback, Infometrix, Inc.	Sunday, 24 August 8:00 a.m.–5:00 p.m. Room 381A	\$600 Professional \$150 Student
SC-02	Seismic Methods for Urban Engineers (SEG DISC)	Yunyue Elita Li, Purdue University	Sunday, 24 August 8:00 a.m.–5:00 p.m. Room 352A	\$400 Professional Member \$560 Professional Nonmember \$100 Student
SC-03	Unconventional Reservoir Engineering for Geoscientists (AAPG)	Yogashri Pradhan, IronLady Energy	Sunday, 24 August 8:30 a.m.–5:00 p.m. Room 381B	\$600 Professional \$150 Student
SC-05	Forensic Data Processing (SEG DISC)	Joe Dellinger, BP	Sunday, 24 August 9:00 a.m.–5:00 p.m. Room 352B	\$400 Professional Member \$560 Professional Nonmember \$100 Student
SC-07	Advanced Sequence Stratigraphic Applications for Exploration and Development (SEPM)	Vitor Abreu, Consultant Rene Jonk, ACT Geosciences	Sunday, 24 August 8:30 a.m.–4:00 p.m. and Monday, 25 August 8:30 a.m.–4:00 p.m. Room 381C	\$600 Professional \$230 Student
SC-09	Understanding Carbonate Processes, Deposition, and Preservation: Breakthroughs and Challenges (SEPM)	Ben Rendall, University of Potsdam Buddy Price, Devon Energy Ted Playton, Chevron Paul (Mitch) Harris, University of Miami	Sunday, 24 August 8:30 a.m.–5:30 p.m. and Monday, 25 August 8:30 a.m.–4:00 p.m. Room 371BCEF	\$250 Professional \$50 Student
SC-11	Exploration and Development Aspects of Geothermal Energy (AAPG EMD Geothermal Committee)	Nicole Wagoner, University of Nevada Reno Ken Wisian, Texas Bureau of Economic Geology Kevin McCarthy, Baker Hughes Benjamin Burke, Gradient Geothermal Emilie Gentry, TEVERRRA Shanna Chu, Fervo Energy	Monday, 25 August 8:00 a.m.–4:00 p.m. Room 381A	\$500 Professional \$150 Student
SC-12	Innovations in Land Seismic Acquisition (SEG)	Andrea Crook, OptiSeis	Monday, 25 August 8:00 a.m.–4:00 p.m. Room 352A	\$500 Professional Member \$650 Professional Nonmember \$250 Student
SC-13	Applied Biostratigraphy: Utility in the Oilfield (AAPG and SEG Women's Networks)	Alicia Kahn, Lawrence Febo, and Rebecca Hackworth, Chevron Katrin Ruckwied, Ellington Geological Services Iain Prince, Shell	Monday, 25 August 8:00 a.m.–5:00 p.m. Room 381B	\$150 Professional \$25 Student
SC-15	Introduction to Scientific Machine Learning for Geophysicists (SEG)	Umair bin Waheed, King Fahd University of Petroleum and Minerals	Monday, 25 August 8:00 a.m.–5:00 p.m. Room 352B	\$850 Professional Member \$1,000 Professional Nonmember \$150 Student
SC-16*	Seismic Stratigraphy and Geomorphology for Graduate Students (SEPM)	Kenn Ehman, Selen Esmeray-Senlet, Andrea Lisi, Shann Khan, and Chad Holmes, Chevron	Monday, 25 August 8:30 a.m.–5:00 p.m. SLB Training center	\$30 Students Only

\*The location for SC-16 will be the SLB Training Center, 10001 Richmond Avenue, Houston. All other courses will be held at the George R. Brown Convention Center.

# Postconvention Workshops

## Wrap Up Your Week with Postconvention Workshops

Cap off a productive week at IMAGE by attending one (or more!) of the 17 Postconvention Workshops, all happening Friday, 29 August. These workshops cover a wide range of timely and technical topics designed to deepen your expertise.

### Pricing:

- \$150 – SEG/AAPG Members
- \$270 – Nonmembers
- \$50 – Student Members
- \$70 – Student Nonmembers

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

*Please note: Seating is limited and available on a first-come, first-served basis. If space allows, attendees may switch between workshops. For full speaker details and session info, visit the [IMAGE website](#) or check the mobile app.*

W #	Workshop Title	Lead Organizer(s)	Location	Time
W-1	Advancements and the Road Ahead in 4D Seismic: A Follow-Up Discussion	Xin Cheng	GRBCC Room 370A	8:30 a.m.–12:00 p.m.
W-2	Advancements and the Road Ahead in 4D Seismic: Case Studies	Shauna Oppert	GRBCC Room 370A	1:30 p.m.–5:00 p.m.
W-3	New Insights and Methods of Basin Modeling for Predicting Hydrocarbon Play Fairways	Paul Mann	GRBCC Room 351A	8:30 a.m.–12:00 p.m.
W-4	Advances in Subsurface Characterization, Fractures, and Geomechanics	Julian Yao	GRBCC Room 361A	8:30 a.m.–12:00 p.m.
W-5	Bridging the Gaps for Effective CCS Deployment	Nimisha Vedanti	GRBCC Room 362A	8:30 a.m.–12:00 p.m.
W-6	Distributed Fiber-Optic Sensing (DFOS): New Frontiers in Geophysical Applications	Aleskei Titov	GRBCC Room 360A	8:30 a.m.–5:00 p.m.
W-7	FWI Hackathon Showcase CANCELLED	▪	▪	▪
W-8	FWI Products for Reservoir Characterization	Dhananjay Kumar	GRBCC Room 361B	8:30 a.m.–12:00 p.m.
W-9	Innovative Solutions in Quantitative Interpretation (QI): Bridging Challenges with Advanced Technologies	Leticia Luebbert	GRBCC Room 362B	8:30 a.m.–12:00 p.m.
W-10	Lithium Mineral Systems Analysis	Alexandra Price; Eric Schrimisher; Francesco Putzolu; Cristian Pereira	GRBCC Room 351A	1:30 p.m.–5:00 p.m.
W-11	Machine Learning in Geosciences in the Age of Generative AI	Haibin Di	GRBCC Room 351B	8:30 a.m.–5:00 p.m.
W-12	Quantum Computing in Geosciences: Is it time to get ready?	Mrinal Sen	GRBCC Room 371B	8:30 a.m.–12:00 p.m.
W-13	Recent Advances in Applied Math and Potential Applications in Seismic Imaging and Analysis	John Etgen	GRBCC Room 361A	1:30 p.m.–5:00 p.m.
W-14	Re-thinking Induced and Passive Seismic (IPS)	Dan Hollis; Weiping Cao	GRBCC Room 362A	1:30 p.m.–5:00 p.m.
W-15	The Business of Heat: Technoeconomic Insights into Geothermal Energy	Gabe Matson; John Holbrook	GRBCC Room 362B	1:30 p.m.–5:00 p.m.
W-16	The Leading-Edge Developments in Geothermal Energy: Enhanced Geothermal Systems, Closed-Loop, and Superhot Systems	Shuvajit Bhattacharya	GRBCC Room 371A	8:30 a.m.–12:00 p.m.
W-17	The Use of Seismic in Well Delivery: Current Practices and Road Ahead	Jennifer Holley	GRBCC Room 371B	1:30 p.m.–5:00 p.m.
W-18	Understanding Uncertainty Quantification in FWI: Its Value and Impact	Carlos Calderon	GRBCC Room 361B	1:30 p.m.–5:00 p.m.

# Field Trips

Learn in an experiential way by participating in one of the IMAGE '25 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.

FT #	Title	Leader(s)	Date / Time	Fees
FT-01	Texas Coastal Processes–Brazos River Delta to Galveston Island (SEPM)	Dr. Erik Scott (Rice University & Vecta Oil & Gas)	Saturday, 23 August 8:00 a.m.–6:00 p.m.	Professionals \$325 Students \$150 (limited)
FT-02	Building Resilient Coastal Communities at Matagorda Bay–A Geoscientists <i>without Borders</i> ® Initiative (SEG/AAPG)	Brandee Carlson and Shuhab Khan (University of Houston)	Saturday, 23 August 8:00 a.m.–6:00 p.m.	Professionals \$250

## Texas Coastal Processes–Brazos River Delta to Galveston Island (SEPM)

Sites ~60 miles south of Houston along ~35 miles of the SE Texas coastline from the Brazos River Delta and along the barrier islands of Follets and Galveston Islands provide locations to observe coastal sedimentological processes and their resultant deposits. The trip will look at the various processes that shape the coastline and the characteristics of the sediments that are deposited. The trip will observe processes on the beach, recent erosion, various styles of washover deposits, different types of delta systems, and sand ridges.



## Building Resilient Coastal Communities at Matagorda Bay–A Geoscientists *without Borders*® Initiative (SEG/AAPG)

The Texas coast, with valuable recreational, industrial, and ecological resources, faces critical threats from land loss due to subsidence and erosion. Matagorda County, with 36,225 residents, has been heavily impacted by storms and rapid erosion (approx. 1 m/year on the ocean side).

The project is using near surface geophysical methods such as GEM-2 to carry out EM surveys and moored instruments for offshore explorations to aid in habitat management activities.

Field trip participants will have a one-hour introduction to the project at the George R. Brown Convention Center describing the goal and approach of the project, how to take measurements, and logistics for the field work. The attendees will be transported to Matagorda Beach to participate in geophysical data acquisition and demonstrations with moored equipment. Attendees will later return to the convention center to visualize the data acquired and understand from previous engagements how the data is processed to aid in the visualization and quantification of sediment transport and ground water quality. This project addresses UN-SDGs: 4, 6, 11, 14 and 17.



See full descriptions and field trip details at [IMAGEevent.org/program/field-trips](https://imageevent.org/program/field-trips).



# Student Events

## Sunday, 24 August

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

#### Day 1 (By invitation only)

Hilton Americas-Houston  
Ballroom of the Americas A/B/C  
10:00 a.m.–6:00 p.m.

## Monday, 25 August

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

#### Day 2 (By invitation only)

Hilton Americas-Houston  
Ballroom of the Americas A/B/C  
8:00 a.m.–3:30 p.m.

### Early Career Networking Reception

George R. Brown Convention Center  
Avenida Balcony, Level 2  
6:30 p.m.–8:00 p.m.

## Tuesday, 26 August

### Early Career Speed Mentoring

Marriott Marquis Houston  
Houston Ballroom 4  
3:00 p.m.–5:00 p.m.

### AAPG Imperial Barrel Award (IBA) Ceremony

Hilton Americas-Houston  
Ballroom of the Americas D/E/F  
4:30 p.m.–5:00 p.m.

### AAPG Imperial Barrel Award (IBA)

#### Reception (By invitation only)

Hilton Americas-Houston  
3<sup>rd</sup> Level Pre-Function Area  
5:00 p.m.–6:00 p.m.

## Wednesday, 27 August

### SEG EVOLVE Carbon Solutions & Energy Exploration/SEG Field Camp

George R. Brown Convention Center  
Room 332  
8:00 a.m.–5:00 p.m.

## Thursday, 28 August

### Applied Science Education Program (ASEP) for K-12

George R. Brown Convention Center  
Room 332 and Exhibition Hall  
8:00 a.m.–3:00 p.m.

# SEPM Activities at IMAGE

<b>SEPM Research Symposium: Mixed Turbidite-Contourite Reservoirs</b>	Thursday, 8 :00 a.m.–12:00 p.m.	Room 351A
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## SEPM Research Group Meetings

All research group meetings will take place at the George R. Brown Convention Center.

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

## SEPM Field Trip and Short Courses

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

## Visit SEPM.org for updates

# Things to Do in Houston

This is just a sampling of all the things to do in Houston. The city is rich with history, science, fine arts, great cuisine, and endless entertainment. For a complete list go to [visithoustontexas.com/things-to-do/](https://visithoustontexas.com/things-to-do/).

## Space Center Houston

The Official Visitor Center of NASA Johnson Space Center is Houston's No. 1 attraction for international visitors and the first Smithsonian Affiliate in the greater Houston area.

Discover the exciting future and remarkable past of America's human spaceflight program set among the largest collection of space artifacts in the southwestern United States. There is always something new to see and do. With more than 400 space artifacts including flown spacecraft, the largest collection of moon rocks on public display and at multiple major seasonal exhibits a year, Space Center Houston offers an array of exciting attractions for people of all ages.

## Houston Museum of Natural Science

As one of the most heavily attended museums in the United States, and one of the most attended venues in Houston, the Museum houses the Burke Baker Planetarium, Wortham GIANT Screen Theatre, Cockrell Butterfly Center and a fascinating variety of permanent exhibit areas that examine astronomy, space science, Native American culture, paleontology, energy, chemistry, gems and minerals, seashells, Texas wildlife and much more.

## Blaffer Art Museum

Blaffer Art Museum is a contemporary art museum located on the University of Houston campus. Their vision is to foster engagement and exchange by and among artists, curators, scholars, and the museum's diverse audiences through exhibitions and public programs. It is free and open to the public Wednesday through Sunday.

## The Galleria

The Galleria, an international shopping destination that hosts more than 24 million visitors annually, offers world-class shopping with more than 375 stores, 30 restaurants, two hotels, and a full-sized ice rink. The Galleria is home to many upscale boutiques and a who's who list of designers, including Louis Vuitton, Cartier, Chanel, Jimmy Choo, and Ralph Lauren, among many others.

## The Holocaust Museum Houston

Charged with educating students and the public about the dangers of prejudice and hatred in society, The Holocaust Museum Houston is dedicated to remembering the 6 million Jews and other innocent victims of the Holocaust and honoring the legacy of the survivors. Using the lessons of the Holocaust and other genocides, they teach the dangers of hatred, prejudice and apathy.

## The Health Museum

The Health Museum, an affiliate of the Smithsonian Institution, is a multi-sensory and ever-evolving interactive experience featuring health science advances and the intricacies and implications of how bodies work. The Health Museum offers year-long programs and camps for all ages, special events, corporate rentals and exhibitions including the DeBakey Cell Lab, which puts guests in the center of their own hands-on science exploration.

## Moody Center for the Arts

Open and free to the public, the Moody Center for the Arts is dedicated to trans-disciplinary collaboration in the arts, sciences and humanities, and is located on the Rice campus. The Moody Center houses facilities including an art gallery space, a 150-seat black box theater, a gallery for experimental performance and a café. It's open to the public Tuesday through Saturday.

## Downtown Aquarium

Part attraction, part restaurant, the 500,000-gallon Downtown Aquarium complex is a multi-functional destination boasting a Ferris wheel, an aquatic carousel, Shark Voyage, a white tiger exhibit and a restaurant. The spectacular wall-to-wall aquarium view complements the surf-and-turf menu. Parents can dig into silky lobster bisque and crabmeat-topped Gulf red snapper, while the little ones nosh on popcorn shrimp, 'sand dollar' pizza and 'Captain's' grilled cheese. During dinner, keep an eye out for scuba divers feeding fish in the restaurant-set tank.

# Gathering Place

## Connect, Recharge, and Engage — Visit the Gathering Place (Booth #2035)

Take a break from the busy conference floor and stop by the IMAGE Gathering Place, located in Exhibit Hall E. The Gathering Place is a dynamic, multipurpose area where attendees meet, interact, and learn about the industry and AAPG and SEG programs and initiatives.

Representatives from the Program Committees including special interest groups: Women's Network, K-12, DEI/JEDI, Next Gen, Students, Sustainability, and Young Professionals will be on hand to share updates, answer questions, and spotlight new initiatives.

Stop by for a free professional headshot! Whether you need an updated photo for LinkedIn, your company website, or your next conference bio, this is a quick and easy way to elevate your professional presence. No appointment needed — just swing by, smile, and leave with a polished new look.

On display will be an interactive augmented reality sandbox and core samples. Whether you're seeking inspiration, mentorship, or just good conversation, this is the perfect place to unwind — and bring a friend along, too!

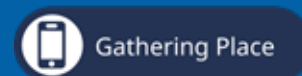
### Tuesday, 26 August

- 9:30 a.m.–10:00 a.m. Sustainable Seas Initiative
- 10:00 a.m.–11:00 a.m. Hard Truth: Navigating US Job Market as an International Student/Professional
- 11:00 a.m.–12:00 p.m. SEG WNC Meet & Greet + LEGO Giveaway
- 1:30 p.m.–2:00 p.m. K-12 and Community Outreach Resources
- 2:00 p.m.–3:00 p.m. Get to know SEG EPIC & Learn How To Stand Out Above the Rest!
- 3:00 p.m.–3:30 p.m. Empowering LACs Next Gen: Impact of SEG LARAC YP Mentorship Program
- 3:30 p.m.–4:00 p.m. Aligning India's Efforts & SEGs Initiatives with SDGs to Advance Global Development

### Wednesday, 27 August

- 10:00 a.m.–11:00 a.m. Powering Through: Careers, Challenges & Intergenerational Insights from Women in Energy
- 1:30 p.m.–2:00 p.m. TBD
- 2:30 p.m.–3:00 p.m. Sound and Marine Life Joint Industry Programme (JIP)
- 3:00 p.m.–4:00 p.m. Roleplay: Social Impact in Geoscience: Utilizing ESG for Community and Stakeholder Engagement

Use the mobile app or  
Scan the QR code for the full  
Gathering Place schedule



# Work, Connect, and Play at IMAGE

IMAGE isn't just the premier destination for world-class technical content — featuring more than 1,100 presentations and talks — it's also where the energy geoscience community comes together to connect, collaborate, and have some fun. From impromptu hallway chats to structured networking spaces, this is your opportunity to make meaningful connections while exploring the latest science and innovations. Check out some of the standout experiences happening throughout the week:

## Society Central – Booth #201

### Find Your Community and Fun at Society Central.

Society Central, located just behind the food court near GRBCC Hall D Entry, is your go-to destination for information, support, and connections.

**Need help navigating the event?** Our friendly staff can walk you through the IMAGE mobile app, provide tech assistance, or help you connect with SEG and AAPG resources. Come say hello—we're here to help you make the most of IMAGE.

Society Central is your one-stop shop for everything related to SEG and AAPG. You can:

- **Join the societies:** Become a member and connect with other geoscientists
- **Learn about vital programs:** Discover the latest initiatives and resources
- **Support the future of geoscience:** Learn how the Foundations of each society help advance the field.

### Looking for more than just information?

Society Central is also a place to relax and have some fun. You can take a break from the busy conference floor, play virtual reality games, and take a picture at our selfie station. Share your photos on social media by tagging AAPG, SEG, and IMAGE using #IMAGE25. We look forward to seeing you there!

## The Gathering Place – Booth #2035

This central hub is designed for casual conversations, networking, and learning more about key community groups. Stop by and meet with representatives from the Women's Network, Diversity, Equity and Inclusion Committee, Veterans Network, and Young Professionals to discover their latest initiatives. See page 41 for more details.

## Pause 4 Paws: Relaxation Dog Park – Booth #1557

Want a minute to decompress? Then stop by Pause 4 Paws to decompress with cuddly rescue dogs from the Houston Humane Society in our Pause 4 Paws Relaxation Dog Park. Whether you're stopping by for a quick snuggle or considering adoption, this one-of-a-kind experience brings comfort and joy to your IMAGE week.



## AAPG | SEG Bookstore – 3<sup>rd</sup> Level

Located on the 3<sup>rd</sup> level near the technical sessions, the combined bookstore features must-have titles—from the latest releases to timeless classics in geoscience. Drop in to browse, chat with publication staff, and spin the wheel for a chance to win books, discounts, and swag. It's a great way to take a break and bring home something valuable.

## Inside IMAGE Podcast – 3<sup>rd</sup> Level

### Hosted by Andrew Geary

Join us on the 3<sup>rd</sup> level, near the Geothermal Hub, 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).





# Division and Committee Meetings

## Sunday, 24 August

### SEG Gravity and Magnetism Committee Meeting

Hilton-Americas Houston, Room 335 A/B

5:00 p.m.–6:00 p.m.

## Monday, 25 August

### AAPG Division of Professional Affairs Annual Meeting

Marriott Marquis Houston, Houston Ballroom 3

1:30 p.m.–3:30 p.m.

### SEG Geophysics Editors Meeting

Marriott Marquis Houston, Houston Ballroom 2

3:00 p.m.–4:30 p.m.

## Tuesday, 26 August

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

George R. Brown Convention Center, Exhibit Hall D/E,  
Near-Surface Pavilion

12:00 p.m.–1:00 p.m.

## Wednesday, 27 August

### SEG Passive Seismic Committee Meeting

Hilton-Americas Houston, Room 337

6:00 p.m.–7:00 p.m.

### AGU/SEG Collaboration Committee Meeting

Marriott Marquis Houston, Montgomery

6:30 p.m.–7:30 p.m.

## Thursday, 28 August

### SEG Mining and Mineral Exploration Committee Meeting

Marriott Marquis Houston, Montgomery

12:00 p.m.–1:00 p.m.

### SEG CO<sub>2</sub> Research Subcommittee Meeting

Marriott Marquis Houston, Fort Bend A

4:00 p.m.–5:00 p.m.

### SEG Research Committee Meeting

Marriott Marquis Houston, Fort Bend A

5:00 p.m.–7:00 p.m.

### SEG Development and Production Committee Meeting

Marriott Marquis Houston, Montgomery

5:30 p.m.–6:30 p.m.



**Beyond  
Geophysical  
Prospecting**



BGP is a worldwide leading geophysical solution provider which offers a comprehensive range of leading-edge geophysical products and quality services to the energy industry.

**Booth #1427**

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# Technical Program Information

The technical program features over 1,100 high-quality presentations across 292 diverse sessions, including 34 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, 17 postconvention workshops will be offered on Friday, 29 August, including 15 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.

## Evaluate/Judge 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.



## Posters

The poster program has been expanded for the second 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.

## Special Sessions

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

- 2024 SEG 4D Forum: From 4D Acquisition to Seismic History Matching
- AAPG Academy 1
- AAPG Academy 2
- Abandoned Mine Lands
- Best of EAGE 2025
- Black Shales to Brines: Unconventional Sources for Critical Elements in the Energy Transition
- Discovery Thinking: Integrating Geology and Geophysics: DHI Reveals Major Subsurface Discoveries 1
- Discovery Thinking: Integrating Geology and Geophysics: DHI Reveals Major Subsurface Discoveries 2
- Emerging Geoscience Technologies for Geothermal Energy 1
- Emerging Geoscience Technologies for Geothermal Energy 2
- Geologic Hydrogen Exploration 1
- Geologic Hydrogen Exploration 2
- Geophysics for Urban Spaces and Infrastructure 1
- Geophysics for Urban Spaces and Infrastructure 2
- Geoscientists without Borders: Applied Geosciences to Solve Humanitarian Challenges 1
- Geoscientists *without* Borders: Applied Geosciences to Solve Humanitarian Challenges 2
- History of Petroleum Geosciences
- Leveraging Technology for Sustainability
- Monitoring of the Near Surface Earth
- Natural Source Electromagnetic for Mining 1
- Natural Source Electromagnetic for Mining 2
- Near Surface Geophysics Applied to Geothermal Resource Exploration and Characterization
- Passive Seismic Rising 1
- Passive Seismic Rising 2
- Pathways to Sustainable Resources
- Recent Advances and the Road Ahead: Hot Topics in Geoscience 1
- Recent Advances and the Road Ahead: Hot Topics in Geoscience 2
- Recommended Practices in Subsurface Assurance
- Road Ahead to Quantum Computing in Geosciences
- SEG/AGU Hydrogeophysics: Innovative Geophysical Approaches to Improve Understanding of Environmental Transformation
- SEPM Research Symposium: Mixed Turbidite-Contourite Reservoirs 1
- SEPM Research Symposium: Mixed Turbidite-Contourite Reservoirs 2
- The Business of Oil and Gas 1
- The Business of Oil and Gas 2

# Technical Program Committee

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Vanessa Simoes  
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Vladimir Puzyrev  
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Xiaolong Wei  
Xie Yi  
Xin Cheng  
Yaoguo Li  
Yi Shen  
Zehao Li  
Zhiqiang Zhang  
Zhiyong He

# Best Presentations at IMAGE '24

## Geophysical Technology

### Oral Paper Award

**Paper Title:** Sparse ocean bottom node seismic interferometry and inversion: A Gulf of Mexico study  
**Byline:** Ivan Lim Chen Ning, Justin Tan, and Ranjan Dash, Chevron U.S.A. Inc.  
**Speaker:** Ivan Lim Chen Ning

### Poster Award

**Paper Title:** A simple modeling experiment for understanding the impact of noise on high resolution high density near surface seismic reflection data  
**Byline:** Ted Stieglitz, Jim Pfeiffer, Juan Ortega and Doug Laymon, Collier Geophysics  
**Speaker:** Ted Stieglitz

## Geological Technology

### Oral Paper Award

**Paper Title:** Fault displacement gradients in mechanically layered rock  
**Byline:** Adam J. Cawood, David A. Ferrill, Kevin J. Smart, Southwest Research Institute  
**Speaker:** Adam J Cawood

### Poster Award

**Paper Title:** Assessing Carbopol as a mobile-shale analog in the laboratory: preliminary results under contraction  
**Byline:** Tim P. Dooley, Juan I. Soto, Jacqueline E. Reber, Michael R. Hudec, Frank J. Peel, Gillian M. Apps, Bureau of Economic Geology, The University of Texas at Austin  
**Speaker:** Tim Paul Dooley

## Regional Themes

### Oral Paper Award

**Paper Title:** Exploration and Production in China of Recently Discovered Giant-Size Oil and Gas Fields in Precambrian (Archean) Basement  
**Byline:** Koning Tako, Basement Oil & Gas GeoConsulting (Calgary) Ltd.  
**Speaker:** Tako Koning

### Poster Award

**Paper Title:** Multidisciplinary iterative approach in characterization of unconventional reservoirs: a case of study on Vaca Muerta Formation, Neuquén Basin, Argentina  
**Byline:** M. Aimé Valdez Ávila, Mariana Monti, Leonardo A. Tórtora, Paula C. Bedini, Ezequiel González, Lara Fernández Kavanagh, Santiago M. Casala, Juan A. Pineda Álvarez and Fabian A. Brea, YPF-Tecnología S.A.  
**Speaker:** Maria Aime Valdez Avila

## Integrated Themes

### Oral Paper Award

**Paper Title:** Enhancing reservoir characterization through isochore mapping of geobodies integrated with relative geological time model  
**Byline:** Alfredo Fernandez, Eliis Inc.; Dylan Wiemer, Diamondback Energy Inc.; Ryan Banas, PetroRes Consulting; Jorge Peinado, Independent Consultant  
**Speaker:** Alfredo Fernandez

### Poster Award

**Paper Title:** Seismic impedance inversion via neural networks and linear optimization algorithm  
**Byline:** Bo Zhang, Yitao Pu, University of Alabama, Department of Geological Science, Ruiqi Dai, Danping Cao, China University of Petroleum (East China), College of Geosciences  
**Speaker:** Bo Zhang

## Student Session Poster Awards

**Paper Title:** Characterization of seismic anomalies in Youngil Bay, Pohang, and its geological implication  
**Byline:** Min Je Lee and Yongchae Cho, Dept. of Energy Systems Engineering, Seoul National University  
**Speaker:** Min Je Lee

**Paper Title:** Clinoform evolution and up-dip trapping mechanisms in an exhumed shelf margin, Upper Cretaceous, Magallanes Basin, southern Chile  
**Byline:** Thomas G. E. Peplow<sup>1,8</sup>, M. Poyatos-Moré<sup>2</sup>, B. W. Romans<sup>3</sup>, S. A. D. Kaempfe<sup>3</sup>, P. R. Nesbit<sup>1,4</sup>, S. Hage<sup>1,5</sup>, R. G. Englert<sup>1,6</sup>, L. P. Bailey<sup>1</sup>, D. Bell<sup>1</sup>, P. Ronnau<sup>7</sup>, L. Stright<sup>7</sup>, S. M. Hubbard<sup>1</sup> (1 – Department of Earth, Energy, and Environment, University of Calgary; 2 - Departament de Geologia, Universitat Autònoma de Barcelona; 3 – Department of Geosciences, Virginia Tech University; 4 - Department of Environmental Sciences, University of San Francisco; 5 - Université Brest, Ifremer, CNRS, Geo Ocean; 6 - Institute of Geoscience, Kiel University; 7 - Warner College of Natural Resources, Colorado State University; 8 – Chevron Canada Limited)  
**Speaker:** Thomas G. E. Peplow

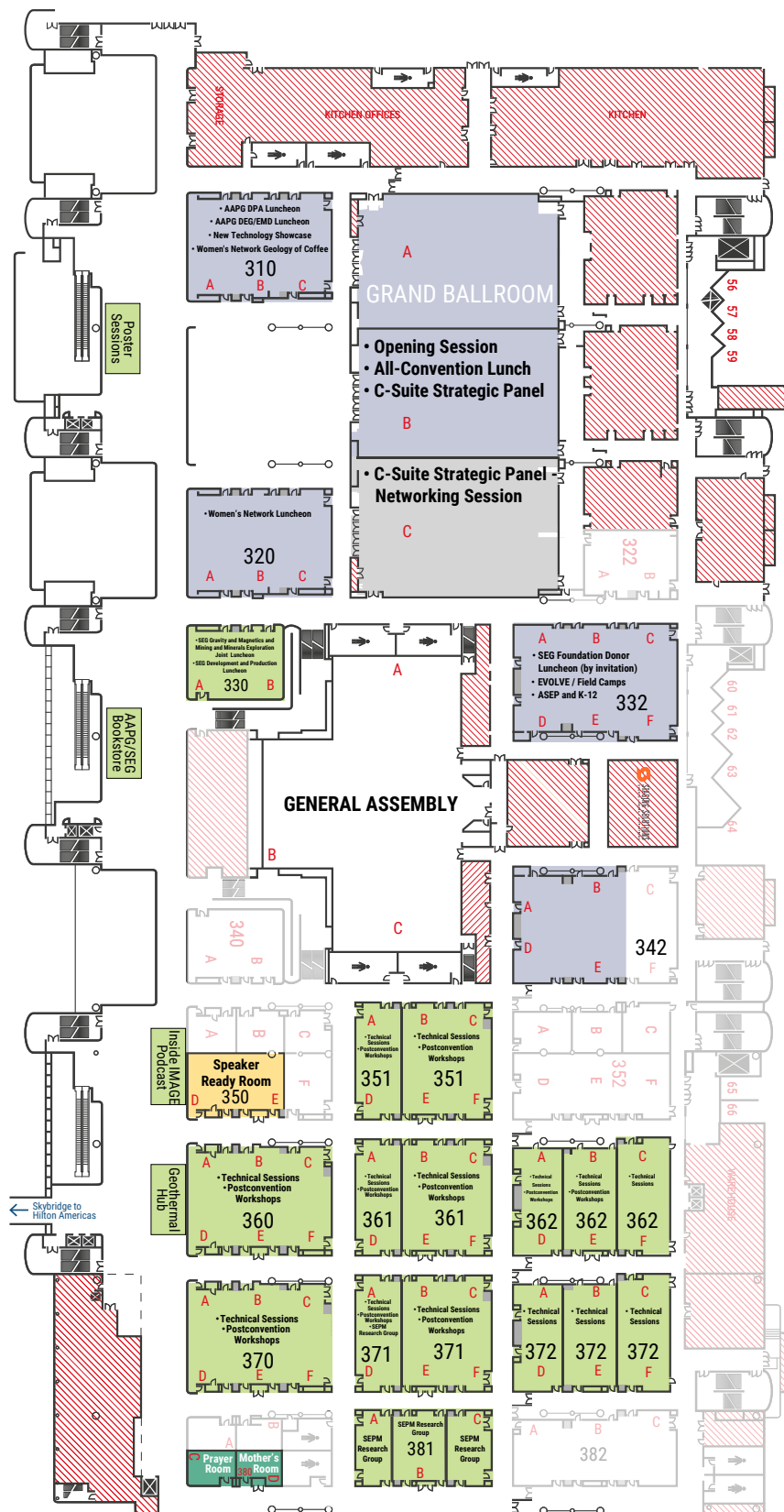
**Paper Title:** Origin of dolomite in the Late Devonian upper Three Forks Formation, Fort Berthold Indian Reservation, Williston Basin, North Dakota  
**Byline:** Lauren Bettinger, Colorado School of Mines  
**Speaker:** Lauren Bettinger

## Evaluate/Judge Presentations

Download the "IMAGE Events" mobile app to evaluate Technical Program presentations. Locate the presentation and select "Rate Presentation."



# Technical Program Floor Map



## Key to Topic Areas

### Exploration and Development (Geographic Regions)

- AFR: Africa
- AP: Asia Pacific
- EMME: Eastern Mediterranean/  
Middle East
- LAC: Latin America and the Caribbean
- USC: United States and Canada

### Geology

- CAEV: Carbonates and Evaporites
- GEOPS: Geochemistry and Petroleum  
Systems
- SILIC: Siliciclastic
- STGM: Structure, Tectonics, and  
Geomechanics

### Geophysics

- AAS: Anisotropy, AVO, and Seismic  
Inversion
- ACQ: Acquisition
- BH: Borehole
- DAS: Distributed Acoustic Sensing
- EM: Electromagnetics
- FWI: Full-Waveform Inversion
- GM: Gravity and Magnetics
- IPS: Induced and Passive Seismic
- NS: Near Surface
- RP: Rock Physics
- SMT: Seismic Modeling and Theory
- SP: Seismic Processing
- TL: Time Lapse

### Geosciences

- CO2: Low Carbon Solutions/CCS
- DMLA: Digitalization, Machine Learning,  
and Analytics
- GI: Geoscience Innovation
- INT: Geologic and Geophysical  
Interpretation
- INTD: Deep Integration of Data and  
Disciplines
- MME: Mining and Mineral Exploration
- NEF: New Energy Frontiers, Critical  
Minerals, and Geothermal
- RC: Reservoir Characterization
- STUD: AAPG, SEG, and SEPM Student  
Research
- SUS: Sustainability Energy  
Development and Environmental  
Geoscience

### Special Sessions

- SS: Special Sessions

# Technical Program Grid: Oral Sessions

## KEY TO TOPIC AREAS

AAS..... Anisotropy, AVO, and Seismic Inversion  
 ACQ..... Acquisition  
 AFR..... Africa  
 AP ..... Asia Pacific  
 BH..... Borehole  
 BM ..... Basin Modeling  
 CAEV..... Carbonates and Evaporites

CO2..... Low Carbon Solutions/CCS  
 DAS..... Distributed Acoustic Sensing  
 DMLA.... Digitalization, Machine Learning, and Analytics  
 EM ..... Electromagnetics  
 EMME ... Eastern Mediterranean/Middle East  
 FWI..... Full-Waveform Inversion  
 GEOPS.. Geochemistry and Petroleum Systems

GI..... Geoscience Innovation  
 GM..... Gravity and Magnetism  
 INT ..... Geologic and Geophysical Interpretation  
 INTD .... Deep Integration of Data and Disciplines  
 IPS ..... Induced and Passive Seismic  
 LAC ..... Latin America and the Caribbean

Room	Tuesday, 26 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	GEOPS 1: Tools of the Trade: Machine Learning Applications in Geochemistry	GEOPS 2: All about the Hydrocarbon: Where is it and where it came from	GEOPS 3: Setting the Stage: Source Facies and Paleoenvironment	GEOPS 4: Are you up to date? What's new and what's working	BM 1: Petroleum System Analysis and Modeling	BM 2: Geological Controls
351B	CAEV 1: Deepwater Carbonates	CAEV 2: Mixed Carbonates and Siliciclastics	CAEV 3: In Memoriam and In Honor 1	CAEV 4: In Memoriam and In Honor 2	CAEV 5: Unconventional Carbonate Systems	CAEV 6: Advancements in Carbonates
360A	USC 1: Studies of Geologic and Geophysical Processes: Gulf Coast	PANEL 1: Mergers & Acquisition Uncovered: Market Trends, Deal Execution, and Career Paths in Oil & Gas A&D and Private Equity	SS 10: AAPG Academy 1	SS 14: AAPG Academy 2	TL 1: Full-waveform Inversion and Analysis	SS 22: 2024 SEG 4D Forum: From 4D Acquisition to Seismic History Matching
361A	SS 1: The Business of Oil and Gas 1	SS 5: The Business of Oil and Gas 2	SS 11: Emerging Geoscience Technologies for Geothermal Energy 1	SS 15: Emerging Geoscience Technologies for Geothermal Energy 2	AFR 1: Africa's Exploration Past and Future Opportunities	AFR 2: African Integrated Geosciences
361B	SS 2: Passive Seismic Rising 1	SS 6: Passive Seismic Rising 2	USC 2: Studies of Geologic and Geophysical Processes: Permian Basin and Eastern Shelf System 1	USC 3: Studies of Geologic and Geophysical Processes: Pacific Region and Canada	SS 19: Best of EAGE	SS 23: Cryogeophysics: Near-Surface Geophysical Tools to Elucidate the Cryosphere CANCELLED
362A	STGM 1: Faults, Fractures, and Fluids 1	STGM 2: Faults, Fractures, and Fluids 2	STGM 3: Petroleum System Tectonics and Structural Styles: Lithosphere to Thin Section 1	STGM 4: Geomechanics 1	STGM 5: Faults, Fractures, and Fluids 3	PANEL 2: New Energies and Energy Transition: CCS Economics, Environmental Aspects, and Regulatory Frameworks
362B	BH 1: Machine Learning Applied to Borehole Data 1	BH 2: Petrophysics and Formation Evaluation	BH 3: Sonic and Signal Processing Techniques	SS 16: Monitoring of the Near Surface Earth	LAC 1: South American Equatorial Margin 2	LAC 2: South Atlantic Offshore 2
362C	SS 3: Recommended Practices in Subsurface Assurance	SS 7: Near Surface Geophysics Applied to Geothermal Resource Exploration and Characterization	SS 12: Geophysics for Urban Spaces and Infrastructure 1	SS 17: Geophysics for Urban Spaces and Infrastructure 2	SMT 1: Forward Modeling: Wave Equation with Vector-Reflectivity and Beyond	SS 24: Black Shales to Brines: Unconventional Sources for Critical Elements in the Energy Transition
370A	FWI 1: Theory and Methods 1	FWI 3: Land	FWI 2: Machine Learning 2	FWI 4: Objective Functions and Uncertainty	FWI 5: Elastic and Multiparameter	FWI 6: Case Studies from the Gulf of America
371A	INTD 1: Seismic Data Integration and Utilization 1	SS 8: History of Petroleum Geosciences	SS 13: Recent Advances and the Road Ahead: Hot Topics in Geoscience 1	SS 18: Recent Advances and the Road Ahead: Hot Topics in Geoscience 2	SS 20: Geologic Hydrogen Exploration 1	SS 25: Geologic Hydrogen Exploration 2
371B	DAS 1: Full-Scale 3D Vertical Seismic Processing	DAS 2: Theory and Simulation	DAS 3: Surface Seismic and Interferometry	DAS 4: Innovative Applications 1	DAS 5: Innovative Applications 2	SS 26: Road Ahead to Quantum Computing in Geosciences
372A	EM 1: Modeling and Inversion 1	EM 2: Machine Learning	DMLA 1: Subsurface Model Building	DMLA 2: Surrogate Models and Image Enhancement	SS 21: SEG/AGU Hydrogeophysics: Innovative Geophysical Approaches to Improve Understanding of Environmental Transformation	DMLA 3: Automation and Digitalization
372B	SP 1: Surface Multiple Removal	SP 2: Machine Learning in Seismic Data Processing 1	SP 3: Velocity Model Building and Tomography	SP 4: Near Surface Solution and Elastic 2	SP 5: Denoise, and Demultiple	SP 6: Deblending
372C	SS 4: Geoscientists without Borders: Applied Geosciences to Solve Humanitarian Challenges 1	SS 9: Geoscientists without Borders: Applied Geosciences to Solve Humanitarian Challenges 2	AAS 1: AVO Inversion 1	AAS 2: Stochastic Seismic Inversion and Analysis	AAS 3: Poststack Seismic Inversion	AAS 4: Anisotropy and Uncertainty

## Color Key:

Geoscience
Geophysics
Geology
Regions
Special Sessions
Panel

MME..... Mining and Mineral Exploration  
 NEF..... New Energy Frontiers, Critical Minerals, and Geothermal  
 NS ..... Near Surface  
 RC ..... Reservoir Characterization  
 RP ..... Rock Physics  
 SILIC ..... Siliciclastic  
 SMT ..... Seismic Modeling and Theory  
 SP..... Seismic Processing

SS ..... Special Session  
 STGM.... Structure, Tectonics, and Geomechanics  
 STUD .... AAPG, SEG, and SEPM Student Research  
 SUS ..... Sustainability Energy Development and Environmental Geoscience  
 TL..... Time Lapse  
 USC ..... United States and Canada

27 August		Thursday, 28 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.
SILIC 1: Deepwater Sedimentary Systems	SILIC 2: Conventional Studies in Sedimentary Processes	SS 31: SEPM Research Symposium: Mixed Turbidite-Contourite Reservoirs 1	SS 33: SEPM Research Symposium: Mixed Turbidite-Contourite Reservoirs 2	NEF 1: Characterization of Natural Hydrogen Reservoir	NEF 2: Geothermal and Critical Minerals
EMME 1: Exploration and Development: Middle East and Europe	EMME 2: Regional Geology of the Middle East	AP 1: Exploration Frontiers	AP 2: Regional Studies and Technology	AP 3: China Case Studies and Technology 3	AP 4: China Case Studies and Technology 4
SS 27: Discovery Thinking: Integrating Geology and Geophysics: DHI Reveals Major Subsurface Discoveries 1	SS 29: Discovery Thinking: Integrating Geology and Geophysics: DHI Reveals Major Subsurface Discoveries 2	TL 2: 4D Seismic Acquisition and Processing 2	TL 3: Analysis using Machine Learning 2	TL 4: Case Studies 2	TL 5: Inversion and Quantitative Interpretation
NS 1: Advances in Near Surface Seismic Applications	NS 2: Near Surface Electrical and Electromagnetics	GI 1: Case Studies 2	GI 2: Case Studies 3	SMT 2: Seismic Imaging: Novel Approaches	SMT 3: Seismic Inversion
ACQ 1: Marine Ocean Bottom Nodes 2	ACQ 2: Innovation in Source and Sensors	ACQ 3: Survey Design and Compressive Sensing 2	ACQ 4: Land Seismic Challenges and Opportunities 2	ACQ 5: Time Lapse and 4D Acquisition	
SS 28: Leveraging Technology for Sustainability	SS 30: Pathways to Sustainable Resources	CO2 1: Monitoring	CO2 2: Reservoir Characterization	CO2 3: Modeling	CO2 4: Screening
LAC 3: Frontier Basins 2	LAC 4: Mexican Basins	USC 4: Studies of Geologic and Geophysical Processes: Gulf of Mexico 1	USC 5: Studies of Geologic and Geophysical Processes: Gulf of Mexico 2	MME 1: Mineral Prospectivity Mapping and Data Processing	MME 2: Modeling and Drilling for Mineral Exploration
RC 1: Geomodelling	RC 2: Applications 2	IPS 1: Hydraulically-induced Fracture Network Monitoring	IPS 2: Induced Seismicity: Fault Monitoring 1	IPS 3: Induced Seismicity: Fault Monitoring 2	IPS 4: Induced Seismicity and New Energies
FWI 7: Case Studies 3	FWI 8: Imaging	FWI 9: Novel Approaches and Workflows 2	FWI 10: Novel Approaches and Workflows 3	FWI 11: Machine Learning 4	FWI 12: Land, Marine Streamer, and OBS
GM 1: Inversion and Artificial Intelligence in Potential Fields	GM 2: Interpretation and Case Studies	INT 1: Machine Learning in Assisting Geological Interpretation	INT 2: Machine learning in Assisting Reservoir Characterization	INT 3: Interpretation Methods 2	
RP 1: Honoring Amos Nur	RP 2: Application	RP 3: Digital Rock	RP 4: Elasticity and Poroelasticity	RP 5: Recent Advancements	RP 6: Machine Learning Application
DMLA 4: Generative and Foundation Models 2	DMLA 5: Seismic Interpretation 2	DMLA 6: Reservoir and Petrophysical Analysis 2	SP 10: Enhancement with Machine Learning	SP 12: Machine Learning Priors, Projection and Attribute Prediction	SP 14: Machine Learning Applications 2
SP 7: Imaging Signal Enhancement	SP 8: Seismic Data Interpolation and Reconstruction	SP 9: Novel Solutions and Emerging Technologies	SP 11: Acoustic, Elastic and Least-Squares Imaging	SP 13: Case Studies on Node Data	SP 15: Case Studies 3
AAS 5: Machine Learning 1	AAS 6: Machine Learning 2	SS 32: Natural Source Electromagnetic for Mining 1	SS 34: Natural Source Electromagnetic for Mining 2	SS 35: Abandoned Mine Lands	NS 3: Void Detection in Near Surface Geophysics

# Technical Program Grid: Poster Sessions

EXHIBIT HALL	LOCATION	Tuesday, 26 August				Wednesday,	
		10:20 a.m.–12:00 p.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.	10:20 a.m.–12:00 p.m.	10:20 a.m.–12:00 p.m.
		A, B, C, D	E, F, G, H	A, B, C, D	E, F, G, H	A, B, C, D	E, F, G, H
	1		ACQ P1: Marine Ocean Bottom Nodes 1	ACQ P3: Onshore Exploration and Seismic	ACQ P5: Acquisition Technology and Hardware		SMT P1: Seismic Applications, Tomography, Geological Interpretation, and Stratigraphy
	2		ACQ P2: Land Seismic Challenges and Opportunities 1	ACQ P4: Survey Design and Compressive Sensing 1	STUD P2: Seismic Imaging and Analysis		SMT P2: Reverse Time Migration, Multiple Imaging, and Elastic Imaging and Model-building
	3		SP P1: Multiple Removal Techniques	SP P3: Seismic Data Interpolation, Regularization and Deblending	SP P5: Elastic Data		BH P1: Seismic
	4		SP P2: Machine Learning in Seismic Data Processing 2	SP P4: Near Surface Solution and Elastic 1	SP P6: Beam Migration and Elastic RTM		SP P7: Complex and Diffraction Imaging
	5		FWI P1: Applications	FWI P3: Case Studies 1	FWI P5: Theory and Methods 2		SP P8: Imaging Enhancement
	6	TL P1: 4D Seismic Acquisition and Processing 1	FWI P2: Machine Learning 1	FWI P4: Case Studies 2	FWI P6: Machine Learning 3	FWI P7: Novel Approaches and Workflows 1	TL P2: Analysis using Machine Learning 1
	7		NS P1: Infrastructure	NS P2: Noise and Uncertainty in Near Surface Seismic Analysis	STUD P3: Innovations in Geophysical Methods	NS P3: Fiberoptic Sensing	NS P4: Hydrogeophysical Applications
3 <sup>rd</sup> LEVEL	LOCATION	Tuesday, 26 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	LAC P1: South American Equatorial Margin 1	LAC P2: South Atlantic Offshore 1	LAC P3: Frontier Basins 1	EMME P1: Eastern Mediterranean, Middle East, Europe, and Caspian Region	GEOPS P1: From the Lab to the Project: Applying Data to Solve Problems	GEOPS P3: Petroleum System Applications for Exploration
	2	AFR P1: Subsurface Interpretation, Modeling and Prediction in West African Basins	AP P1: China Case Studies and Technology 1	AP P2: China Case Studies and Technology 2	GI P1: Case Studies 1	GEOPS P2: From Details to Big Picture	SILIC P1: Advanced Techniques in Sedimentary System Analysis
	3	GM P1: Inversion and Processing in Potential Fields	GM P2: Applications in Potential Fields Processing and Interpretation	STUD P1: Integrated Geology and Geophysics Studies	INTD P1: Seismic Data Integration and Utilization 2	USC P1: Studies of Geologic and Geophysical Processes: Permian Basin and Eastern Shelf System 2	STGM P1: Faults, Fractures, and Fluids 4
	4	RP P1: CCS and Storage	INT P1: Case Study on Machine Learning for Geological Interpretation	INT P3: Interpretation Methods 1	INT P6: Geologic Stories	USC P2: Studies of Geologic and Geophysical Processes: North America	STGM P2: Petroleum System Tectonics and Structural Styles: Lithosphere to Thin Section 2
	5	RP P2: Measurements and Poroelasticity	INT P2: Interpretation Case Study	INT P4: Seismic Attributes	INT P7: New Exploration Aspects	RC P1: Geomorphology	RC P3: Applications in Carbonates
	6	DMLA P1: Non-Seismic Geophysical Data Analysis	DMLA P3: Generative and Foundation Models 1	INT P5: Integrated Geological Interpretation		RC P2: Applications 1	RP P3: Machine Learning and Digital Rock Applications
	7	DMLA P2: Facies and Reservoir Property Analysis	DMLA P4: Reservoir and Petrophysical Analysis 1	EM P1: Case Studies and Reservoir Surveillance	EM P2: Modeling and Inversion 2	DMLA P5: Seismic Interpretation 1	RP P4: Modeling and Applications



27 August		Thursday, 28 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.	10:20 a.m.–12:00 p.m.	1:20 p.m.–3:00 p.m.
A, B, C, D	E, F, G, H	A, B, C, D	E, F, G, H	A, B, C, D
SMT P3: Frequency Domain	SMT P5: Miscellaneous Topics in Seismic Exploration	NS P7: Seismic Applications 1		
SMT P4: Seismic Modeling in Different Media	BH P3: Advances in Borehole Data Processing and Modeling 2	NS P8: Seismic Applications 2	NS P9: Environmental Geophysics	NS P10: Voids and Seismic
BH P2: Advances in Borehole Data Processing and Modeling 1	BH P4: Machine Learning Applied to Borehole Data 2	SP P13: Emerging Technologies		
SP P9: Machine Learning Applications 1	SP P11: Case Studies 1	FWI P8: VSP, Multiphysics, and Reservoir Characterization	FWI P9: Cycle-skipping	FWI P10: Elastic
SP P10: Machine Learning Technology	SP P12: Case Studies 2	AAS P1: Case Study	AAS P3: AVO Inversion 2	AAS P6: Reservoir Property Estimation
TL P3: Case Studies 1	TL P4: 4D Seismic Inversion and Quantitative Interpretation	AAS P2: Anisotropy	AAS P4: Machine Learning 3	AAS P7: CO2 and Methane Study
NS P5: General Contributions	NS P6: Seismic Velocity Modeling		AAS P5: Machine Learning 4	

27 August		Thursday, 28 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.
CAEV P1: Porosity and Permeability	CAEV P4: Carbonate Diagenesis	MME P1: Advanced Modeling for Exploration	MME P2: Exploration Methods and Studies
CAEV P2: Outcrop, Seismic, and Modern Analogues 1	CAEV P5: Outcrop, Seismic, and Modern Analogues 2	CO2 P1: Reservoir Characterization	CO2 P2: Modeling, Monitoring, and Screening
CAEV P3: Mixed Carbonate and Siliciclastic Systems	IPS P1: New Energies and Hydraulic Fracture Monitoring	NEF P1: Geothermal Energy	NEF P3: Geologic Hydrogen 1
STGM P3: Geomechanics 2	IPS P2: Ambient Field Methods	NEF P2: Energy Transition	NEF P4: Geologic Hydrogen 2
BM P1: Modeling Fluids Systems	IPS P3: Induced Seismicity and Fault Monitoring	SUS P1: Advances in Sustainable Geo-energy Development	STUD P6: Energy, Carbon Sequestration, and Geology
BM P2: Seismic Stratigraphy, CO2 and Geothermal	STUD P4: Outcrop-Based Study	STUD P5: Seismic Monitoring for CO2 Storage	STUD P7: Provenance, Climate, and Tectonics
DAS P1: Modeling and Processing	DAS P2: Near Surface and Engineering	DAS P3: Low Carbon Solutions	DAS P4: Long-Term Monitoring



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# Oral Sessions

Tuesday, 26 August

## BH 1 Machine Learning Applied to Borehole Data 1

Session Chairs: Vanessa Simoes and Chicheng Xu

Location: 362B

- 8:00 AM.....**A Deep Learning Based Baseline Framework for Automated Stratigraphic Boundary Detection and Well Correlation Transferable Across Basins:** M. Nasim<sup>1</sup>, P. N. Roy<sup>1</sup>, A. Mitra<sup>1</sup>, T. Maiti<sup>2</sup> (1. Indian Institute of Technology, Kharagpur; 2. Deepkapha AI Research Lab) Speaker: M Quamer Nasim
- 8:25 AM.....**Automatic textures segmentation in acoustic image logs based on Deep Learning techniques:** M. d. Martins, J. Silva, J. Campos, G. Pinto, L. Leite, R. Ancelme, I. Silva (PETREC) Speaker: Marcio Martins
- 8:50 AM.....**Logging Lithology Classification via Active Learning and Domain Adaptation-LSTM:** W. Jin<sup>1</sup>, H. Cai<sup>1</sup>, W. Wang<sup>2</sup>, R. Tang<sup>2</sup>, J. Liang<sup>1</sup>, G. Zhang<sup>1</sup> (1. University of Electronic Science and Technology of China; 2. Exploration and Development Research Institute, PetroChina Southwest Oil & Gasfield Company) Speaker: Guanlei Zhang
- 9:15 AM.....**DeepSWirr: Predicting Irreducible Water Saturation from Nuclear Magnetic Resonance data using Neural Networks:** B. Fraga<sup>1</sup>, B. Coutinho<sup>3</sup>, C. de Bom<sup>2</sup> (1. Centro Brasileiro de Pesquisas Físicas; 2. CBPF; 3. Petrobras) Speaker: Bernardo Fraga

## CAEV 1 Deepwater Carbonates

Session Chairs: Buddy Price and Rachel Williams

Location: 351B

- 8:00 AM.....**Lower Mississippian carbonate-drift deposits beyond the clinothems and along 1500 km of the southern margin of North America (Laurussia):** C. R. Handford (Independent) Speaker: C. Handford
- 8:25 AM.....**Mississippian Outer Ramp and Basinal Deposits in the Sacramento Mountains, Bishop Cap and Northern Franklin Mountains: Mounds, Drifts and Turbidites:** X. Janson<sup>1</sup>, B. Price<sup>2</sup>, J. Syzdek<sup>1</sup>, J. R. Malone<sup>1</sup> (1. University of Texas at Austin; 2. Devon) Speaker: Xavier Janson
- 8:50 AM.....**Dolomitization below the seafloor within deepwater drift and platform margin deposits in the Maldives Archipelago:** J. Laya<sup>1</sup>, D. Budd<sup>2</sup>, C. Jacquemyn<sup>3</sup>, C. Manche<sup>1</sup>, K. Prince<sup>1</sup> (1. Texas A&M University; 2. University of Colorado; 3. Imperial College London) Speaker: Juan Carlos Laya
- 9:15 AM.....**Sedimentological and stratigraphic architecture of a prograding Pennsylvanian mud-dominated carbonate slope: Examples from the Bird Spring Formation, Marble Canyon, Death Valley, USA:** J. R. Malone<sup>1</sup>, X. Janson<sup>1</sup>, B. Price<sup>2</sup> (1. University of Texas at Austin; 2. Devon) Speaker: Joshua Malone

## DAS 1 Full-Scale 3D Vertical Seismic Processing

Session Chairs: Vladimir Kazei and Albenia Mateeva

Location: 371B

- 8:00 AM.....**3D DAS-VSP data acquisition, processing and integrated interpretation in Junggar Basin:** G. Yu<sup>1</sup>, S. Zhang<sup>2</sup>, H. Chen<sup>1</sup>, S. An<sup>3</sup>, Z. Cai<sup>3</sup>, B. Liu<sup>3</sup>, M. Xiao<sup>3</sup>, J. Wu<sup>3</sup>, Y. Chen<sup>3</sup>, Y. Wang<sup>3</sup>, Z. Cao<sup>1</sup> (1. BGP; 2. CNPC; 3. Optical Science and Technology (Chengdu) Ltd.) Speaker: Gang Yu
- 8:25 AM.....**Time-lapse wireline DAS-VSP field experiment using an existing onshore well in Japan:** T. Nibe<sup>1</sup>, T. Miura<sup>1</sup>, Y. Imai<sup>1</sup>, K. Yoshioka<sup>1</sup>, M. Katou<sup>2</sup>, M. Higashinaka<sup>2</sup>, T. Nagata<sup>3</sup>, S.

Sugawara<sup>4</sup>, T. K. Lim<sup>4</sup> (1. JAPEx; 2. JGI; 3. GSC; 4. GEOSYS) Speaker: Takao Nibe

- 8:50 AM.....**Integrated 3D DAS-VSP workflows for enhanced shallow imaging and drilling hazard mitigation in Abu Dhabi offshore carbonate reservoirs:** Y. Hong, G. Cambois, S. A. Al Mesaabi, M. Mahgoub, A. Al Neyadi, J. E. Mason (ADNOC) Speaker: Saif Al Mesaabi
- 9:15 AM.....**Insights from DAS VSP converted wave imaging in complex carbonate geological settings:** R. Alai<sup>1</sup>, A. Ghazali<sup>1</sup>, F. Ghazali<sup>1</sup>, M. Pua<sup>1</sup>, E. B. Kamarudin<sup>1</sup>, M. Preston<sup>2</sup>, S. Dong<sup>2</sup>, G. Zhan<sup>2</sup>, F. Liu<sup>2</sup>, R. Collings<sup>2</sup>, S. Shaw<sup>3</sup>, O. A. Barrios<sup>3</sup> (1. PETRONAS; 2. TGS; 3. Halliburton) Speaker: Riaz Alai

## EM 1 Modeling and Inversion 1

Session Chairs: Jiefu Chen and Kyubo Noh

Location: 372A

- 8:00 AM.....**Quantifying the effects of TTI in multiphysics analysis of electromagnetic data offshore Malaysia:** R. Mackie<sup>1</sup>, L. MacGregor<sup>2</sup>, A. S. Saleh<sup>2</sup>, J. Kho<sup>2</sup> (1. Viridien; 2. Petronas) Speaker: Randall Mackie
- 8:25 AM.....**Time-lapse electromagnetic methods for monitoring plume development in a carbon storage reservoir:** K. MacLennan<sup>1</sup>, T. L. Richards<sup>1</sup>, T. Pugh<sup>2</sup>, J. Chen<sup>2</sup>, B. A. Kurz<sup>1</sup> (1. University of North Dakota; 2. ESG Solutions) Speaker: Trevor Richards
- 8:50 AM.....**Industry-First 3D Horizontal Look Ahead Mapping UDAR for Advanced Warning of Major Dip Changes Ahead of the Bit:** N. Suarez Arcano<sup>1</sup>, N. Clegg<sup>1</sup>, J. Ma<sup>1</sup>, C. Sarquez<sup>1</sup>, G. Tosi<sup>1</sup>, E. Romsås Fjeldberg<sup>2</sup> (1. Halliburton; 2. AkerBP) Speaker: Nelson Suarez Arcano
- 9:15 AM.....**3D Inversion of Semi Airborne CSEM Data at the Kemper CarbonSAFE Site in Mississippi:** N. Perkovich (Colorado School of Mines) Speaker: Noah Perkovich

## FWI 1 Theory and Methods 1

Session Chairs: Arnab Dhara and Guanghui Huang

Location: 370A

- 8:00 AM.....**Gas hydrates estimated by Biot-poroelastic full-waveform inversion:** Y. Liu, H. Wang, T. Yan, Z. Zhang (Chinese Academy of Sciences) Speaker: Yike Liu
- 8:25 AM.....**One-Way Waveform Inversion (OWI): Efficient Deep Imaging in Complex Salt Environments:** A. Benhassine<sup>1</sup>, R. Baina<sup>1</sup>, M. Appé<sup>2</sup>, B. Duquet<sup>2</sup> (1. OPERA; 2. TotalEnergies) Speaker: Aimen Benhassine
- 8:50 AM.....**Elastodynamic modeling and inversion with reflectivity terms:** C. Macesanu, G. Huang, F. Liu, J. Ramos-Martinez, D. Whitmore (TGS) Speaker: Cosmin Macesanu
- 9:15 AM.....**Accelerating anisotropic elastic subsurface imaging with dual-pair finite differences:** M. Irakarama, S. Luo, J. Etgen, X. Shen, M. O'Brien (bp) Speaker: Modeste Irakarama

## GEOPS 1 Tools of the Trade: Machine Learning Applications in Geochemistry

Session Chairs: Jagos Radovic and Carl Symcox

Location: 351A

- 8:00 AM.....**Peripheral vision: Using machine learning to identify unusual source facies along the periphery of a world-class marine source rock basin. Examples from the North Sea:** D. Gardiner<sup>1</sup>, D. Cornford<sup>1</sup>, C. Cavalli<sup>2</sup>, A. Przybylo<sup>2</sup>, M. Ahlborn<sup>2</sup>,



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J. Dziegielowski<sup>2</sup> (1. IGI Ltd.; 2. ORLEN Upstream Norway AS) Speaker: David Gardiner

8:25 AM.....**Isotope-Maturity-Gas to Oil Ratio (iRo-GOR) templates and applications:** S. Wu<sup>1</sup>, A. Sneddon<sup>2</sup>, J. Hu<sup>3</sup> (1. Power Energy and Environmental Research Institute; 2. MidCon Well Logging Inc.; 3. Chinese Institute of Coal Science) Speaker: Sheng Wu

8:50 AM.....**Organic facies identification in sulfur-rich kerogens of the Monterey Formation: Random forest-based feature selection and kinetic analysis:** A. Vielma, J. Curiale, J. R. Radović (University of Houston) Speaker: Ana Vielma

9:15 AM.....**Enhancing resolution of geochemical fingerprinting by significant parameters selection for reservoir compartmentalization evaluation using unsupervised machine learning:** C. Sandu, A. Silver, P. Srinivasan (Aramco Americas) Speaker: Constantin Sandu

### INTD 1 Seismic Data Integration and Utilization 1

*Session Chairs: Mike Cogan and Joe Zuech*

**Location: 371A**

8:00 AM.....**Overcoming challenges imposed by the characterization of sandy channelized reservoirs through elastic property estimation:** L. B. de Oliveira<sup>1</sup>, A. Nascimento<sup>1</sup>, A. Maul<sup>1</sup>, W. Souza-Lima<sup>2</sup>, P. Lopes Brandão Paraizo<sup>1</sup>, O. Chaves<sup>1</sup>, L. Kubota<sup>1</sup> (1. Petrobras S.A.; 2. UFS) Speaker: Leonardo de Oliveira

8:25 AM.....**Production Forecast for Major Unconventional Reservoirs in Wyoming: A Focus on the Mowry Shale:** M. Lakjaa, T. Considine (School of Energy Resources- University of Wyoming) Speaker: Maryam Lakjaa

8:50 AM.....**Advancing Energy Sustainability with Data-Driven Software License Management:** E. Fosli, M. L. Maano (Open iT, Inc.) Speaker: Eistein Fosli

9:15 AM.....**From Source to Sink: Multi-Domain Analysis of CO<sub>2</sub> Capture, Transport, and Storage in Global Contexts:** P. Saraswat (Querent AI LLC) Speaker: Puneet Saraswat

### SP 1 Surface Multiple Removal

*Session Chairs: Imtiaz Ahmed and Daniele Boiero*

**Location: 372B**

8:00 AM.....**Broadband high-frequency multiple attenuation using curvelet mask upscaling:** Z. Yan (SLB) Speaker: Zhimei Yan

8:25 AM.....**Feasible up/down deconvolution implementation for streamer data:** T. Bai, D. Boiero, M. Vassallo (SLB) Speaker: Tong Bai

8:50 AM.....**A time-domain implementation of Multidimensional Deconvolution:** P. Terenghi, A. Jafargandomi, I. Vasconcelos, I. Gregory, J. Holden (Shearwater) Speaker: Paolo Terenghi

9:15 AM.....**Shallow-water ocean-bottom node demultiple using joint wavefield extrapolation multiple modeling and surface-related multiple elimination with subtraction in the curvelet domain:** H. Yao<sup>1</sup>, A. Elsabaa<sup>1</sup>, F. Xavier De Melo<sup>1</sup>, D. Desta<sup>1</sup>, C. Tapia<sup>2</sup>, N. Hicks<sup>2</sup>, M. Bishop<sup>2</sup> (1. SLB; 2. Arena Energy) Speaker: Heather Yao

### SS 1 The Business of Oil and Gas 1

*Session Chairs: Susan Nash and Judy Schulenberg*

**Location: 361A**

8:00 AM.....**Geospatial Characterization of Thermal Heating and Cooling Demand in Texas: Role of Geothermal Energy:** S. Bhattacharya<sup>1</sup>, P. Garg<sup>1</sup>, S. S. Nash<sup>2</sup> (1. The University of Texas at Austin, United States; 2. AAPG) Speaker: Shuvajit Bhattacharya

8:25 AM.....**Monetary pivot points in the history of the US dollar, their effects on oil prices, and the coming pivot:** W. DeMis (Rochelle Court, LLC) Speaker: William DeMis

8:50 AM.....**Effective joint venture influencing: A strategic approach:** A. Olivera-Riley<sup>1</sup>, J. Farrelly<sup>2</sup>, C. Howes<sup>1</sup>, M. Jamieson<sup>1</sup> (1. Subsurface Consultants & Associates; 2. Prudentia Geoscience LLC) Speaker: Amalia Olivera-Riley

9:15 AM.....**Teaching Rocks to Speak: The Promise of Large Geologic Models and Generative AI:** A. Davidoff (A.J. Davidoff LLC) Speaker: Andrew Davidoff

### SS 2 Passive Seismic Rising 1

*Session Chairs: Shujuan Mao and Fabian Pena*

**Location: 361B**

8:00 AM.....**Investigating tectonic, magmatic, and hydrothermal micro-earthquakes in the Three Sisters Volcanic Complex with machine learning and a dense nodal array:** Y. Zhou<sup>1</sup>, B. Schmandt<sup>1</sup>, A. Peña Castro<sup>2</sup>, B. Herr<sup>1</sup> (1. Rice University; 2. Department of Earth and Planetary Sciences, University of New Mexico) Speaker: Yangtianli Zhou

8:25 AM.....**Passive Borehole Imaging with DAS Ambient Noise: A New Frontier in Subsurface Monitoring:** L. Huang<sup>1</sup>, D. Li<sup>1</sup>, Y. Li<sup>2</sup>, Y. Zheng<sup>3</sup> (1. Los Alamos National Laboratory; 2. BlueSkyDas LLC; 3. University of Houston) Speaker: Lianjie Huang

8:50 AM.....**Hydraulic Stimulation Strategies to Improve Estimated Ultimate Recovery of Hydrocarbons:** J. P. McKenna (MicroSeismic, Inc) Speaker: Jonathan McKenna

9:15 AM.....**Shale fracturing state evaluation technology based on acoustic emission signal:** X. Hao, B. Wei, G. Zhao, J. Zhang, F. HE (Research and Development Center, Sinopec Geophysical Corp.) Speaker: Xiaomin Hao

### SS 3 Recommended Practices in Subsurface Assurance

*Session Chairs: Christopher Hare and Eric Kubera*

**Location: 362C**

8:00 AM.....**Assurance and prospect assessment: The human factor:** J. Irvin (Rose Subsurface Assessment) Speaker: Juliet Irvin

8:25 AM.....**Assessing prospective resource uncertainty: The hidden cost of optimistic bias:** L. A. Costa, L. S. Soares (Petrobras) Speaker: Luciano Costa

8:50 AM.....**Transformation of geologic to commercial chance and volume:** D. Weaver (Rose Subsurface Assessment) Speaker: Douglas Weaver

9:15 AM.....**A practical data-driven approach for depth uncertainty estimation:** H. Liu, J. Chen, Y. Luo, R. Mongan, M. Yang, S. Deng, K. Fu, F. Chen, W. Fei, Y. Tan (Chevron U.S.A Inc.) Speaker: Huafeng Liu



# Oral Sessions

Tuesday, 26 August

## SS 4 Geoscientists without Borders: Applied Geosciences to Solve Humanitarian Challenges 1

Session Chairs: Cengiz Esmersey and Robert Merrill

Location: 372C

- 8:00 AM.....**Integrated Monitoring of Barrier Island Change on the Upper Texas Coast: Linking Subsurface Hydrology to Coastal Sediment Transport:** B. Carlson<sup>1</sup>, J. Sun<sup>2</sup>, S. D. Khan<sup>3</sup> (1. University of Houston; 2. University of Houston; 3. University of Houston) Speaker: Brandee Carlson
- 8:25 AM.....**Contribution of GWB Stations to Seismic Monitoring in Guatemala: Analysis of 2023 and 2024:** D. Barral<sup>1</sup>, B. Cosenza-Murales<sup>3</sup>, S. L. Roche<sup>2</sup> (1. Instituto Nacional de Sismología, Vulcanología, Meteorología e Hidrología -INSIVUMEH-; 2. Geophysical Consultant; 3. Escuela de Ciencias Físicas y Matemáticas, Universidad de San Carlos de Guatemala) Speaker: David Barral
- 8:50 AM.....**Groundwater Prospectivity Mapping in part of Northwestern Nigeria using an Integration of Remote Sensing and Electrical Resistivity Techniques:** J. O. Osumeje<sup>1</sup>, D. Eshimiakhe<sup>1</sup>, K. M. Lawal<sup>2</sup>, A. S. Oniku<sup>3</sup> (1. Ahmadu Bello University, Nigeria; 2. National Open University of Nigeria; 3. Modibbo Adama University of Technology) Speaker: Joseph Osumeje

## STGM 1 Faults, Fractures, and Fluids 1

Session Chairs: Nahid Hasan and Alissa Henza

Location: 362A

- 8:00 AM.....**Application of improved Swin-Transformer model in fault identification:** L. Li, C. Xu, W. Xiong, X. Zhang, S. Yuan, H. Zhao (BGP, CNPC) Speaker: Lei Li
- 8:25 AM.....**Geometric and kinematic characterization of faults in the Saltpond Basin of Ghana: Implications for fluid migration and reservoir integrity:** P. Atubrah, A. Quansah, V. Hotor (Ghana National Petroleum Corporation) Speaker: Prince Atubrah
- 8:50 AM.....**Enhancing CNN-based fault detection in seismic data using Hough transform-based geometrical filtering: Application to Opunake dataset:** S. Ben Brahim<sup>1</sup>, R. Baillet<sup>1</sup>, T. Gardashli<sup>2</sup> (1. Beicip Franlab; 2. Beicip Franlab (Non-Author)) Speaker: Turgay Gardashli
- 9:15 AM.....**Empirical rules for volumetric QC and modelling of fault populations:** J. Solum, P. Zarian (Shell International E&P, Inc.) Speaker: John Solum

## USC 1 Studies of Geologic and Geophysical Processes: Gulf Coast

Session Chairs: David Lankford-Bravo and Scott Singleton

Location: 360A

- 8:00 AM.....**Onshore Texas Salt Domes in the Houston/Beaumont/Galveston Area are Ripe for Oil and Gas Revitalization: How to Detect Undrilled Salt Overhangs and Find New Reserves Using Depth Migrated Seismic:** L. R. Sternbach (Star Creek Energy) Speaker: Linda Sternbach
- 8:25 AM.....**A Gulf of Mexico refill paleocanyon in Belize?:** S. Cossey<sup>1</sup>, J. H. Rosenfeld<sup>2</sup> (1. Cossey and Associates Inc; 2. retired) Speaker: Stephen Cossey
- 8:50 AM.....**Organic Matter Preservation Under Alternating Suboxic–Anoxic Bottom Waters in the Proximal Eagle Ford Sea:** R. A.

Denne<sup>1</sup>, J. Birdwell<sup>2</sup>, K. L. French<sup>2</sup> (1. University of Texas; 2. U.S. Geological Survey) Speaker: Richard Denne

- 9:15 AM.....**High resolution diffraction imaging applied to a karst reservoir in a South Texas Field:** S. P. Singh, D. Dopkin, Z. Koren (Aspentech) Speaker: Shiv Singh

## BH 2 Petrophysics and Formation Evaluation

Session Chairs: Mayank Malik and Arpana Sarkar

Location: 362B

- 10:20 AM...**Quantitative Estimation of Bulk Thermal Conductivity in Geothermal Energy Systems:** H. Wang, J. Dirkzwager, J. Nunn, J. Burger, T. Chaturvedi, S. Jones (Chevron U.S.A. Inc.) Speaker: Haijing Wang
- 10:45 AM...**Saturation modeling of ultra-shallow gas reservoirs in deep-water marine environments: Experimental exploration and field applications:** Z. Peng, Z. Wei, S. Deng, C. Wu (National Key Laboratory of Deep Oil and Gas, China University of Petroleum (East China)) Speaker: Zhoutuo Wei
- 11:10 AM...**Bright spot in borehole acoustic reflection imaging: Theoretical modeling and field application:** X. Tang, W. Wang, H. Wang, K. Zheng (China university of Petroleum) Speaker: Xiaoming Tang
- 11:35 AM...**Optimizing Volume of Investigation for Reliable Assessment of Petrophysical Heterogeneity in the Well-log Domain:** P. Sahu, Z. Heidari (The University of Texas at Austin) Speaker: Pallavi Sahu

## CAEV 2 Mixed Carbonates and Siliciclastics

Session Chairs: Tiffany Legg and William Morgan

Location: 351B

- 10:20 AM...**Feedbacks in carbonate-siliciclastic sediment routing in the hyperarid Gulf of Aqaba, Red Sea:** B. Rendall<sup>1</sup>, S. J. Purkis<sup>2</sup>, W. Altyeb<sup>1</sup>, M. Mutti<sup>1</sup> (1. University of Potsdam; 2. University of Miami) Speaker: Ben Rendall
- 10:45 AM...**Architecture and Sequence Stratigraphy of Mixed Carbonate-Siliciclastic Toe-of-Slope Systems: Examples from the Upper Permian Bell Canyon Members of the Guadalupe Mountains, West Texas:** T. Playton<sup>1</sup>, J. A. Bellian<sup>3</sup>, C. Kerans<sup>2</sup>, D. Katz<sup>4</sup> (1. Chevron; 2. UT Austin-BEG; 3. Oviniv; 4. OVV) Speaker: Ted Playton
- 11:10 AM...**Constraining fracture stratigraphy in grain-rich mixed carbonate slope deposits for subsurface applications:** R. A. Williams<sup>1</sup>, M. Ibagarov<sup>1</sup>, Z. Jobe<sup>1</sup>, T. Playton<sup>2</sup>, P. Plink-Bjorklund<sup>1</sup>, L. J. Wood<sup>1</sup>, E. Earnest<sup>2</sup> (1. Colorado School of Mines; 2. Chevron) Speaker: Rachel Williams
- 11:35 AM...**Refining models for mixed carbonate-siliciclastic systems for application to a heterogeneous ramp in an icehouse world: Pennsylvanian Upper Strawn Group of the Eastern Shelf of the Permian Basin:** K. Hattori, P. P. Flaig (University of Texas at Austin) Speaker: Kelly Hattori

## DAS 2 Theory and Simulation

Session Chairs: Bin Luo and Baishali Roy

Location: 371B

- 10:20 AM...**Neural Operator-Assisted FWI of Dual-Well DAS on Tubing:** V. Kazei<sup>1</sup>, H. Liang<sup>1</sup>, N. Alzamil<sup>2</sup>, A. AlDawood<sup>2</sup> (1. Aramco Americas; 2. Saudi Aramco) Speaker: Vladimir Kazei
- 10:45 AM...**Radiation and diffraction pattern analyses on accelerometer-DAS multicomponent data amplitudes with**





## Tuesday, 26 August

**VSP geometries:** W. Zhou<sup>1</sup>, X. Liu<sup>1</sup>, X. Cai<sup>2</sup> (1. KFUPM; 2. University of Calgary) Speaker: Xiaohui Cai

11:10 AM ...**Evaluation of dark fiber surface distributed acoustic sensing compared with ocean bottom node measurements in deep-water Gulf of America:** A. Sayed<sup>1</sup>, S. Riseman<sup>1</sup>, N. Cockrell<sup>1</sup>, R. Bachrach<sup>1</sup>, Z. T. Jackson<sup>1</sup>, M. Sourial<sup>1</sup>, R. Dash<sup>2</sup>, Y. Tian<sup>2</sup>, I. Lim Chen Ning<sup>2</sup>, S. Oppert<sup>2</sup>, K. Zhang<sup>2</sup> (1. SLB; 2. Chevron U.S.A. Inc.) Speaker: Ali Sayed

11:35 AM ...**No-compromise 3D finite-element modeling of borehole DAS data:** A. Bakulin, J. Badger, S. Fomel (University of Texas at Austin) Speaker: Jacob Badger

### EM 2 Machine Learning

*Session Chairs: Adel El-Emam and Vladimir Puzyrev*

**Location: 372A**

10:20 AM ...**Inverting Airborne Time-Domain Electromagnetic Data using a Conditional Variational Autoencoder:** S. F. Hirsch, Y. Li (Colorado School of Mines) Speaker: Sara Hirsch

10:45 AM ...**Physics-informed neural network for magnetotelluric inversion:** Y. Li, W. Lu, C. Song (Tsinghua University) Speaker: Yinshuo Li

11:10 AM ...**Comparative analysis of LSTM, transformer, and hybrid LSTM-transformer models for logging-while-drilling inversion:** Z. Wang<sup>1</sup>, J. Lu<sup>1</sup>, H. Wang<sup>2</sup>, J. Zheng<sup>1</sup> (1. University of Houston; 2. Chevron) Speaker: Jianfeng Zheng

11:35 AM ...**An unsupervised deep learning approach to geophysical Bayesian inversion using normalizing flows:** S. Wu, J. Sun, J. Chen (University of Houston) Speaker: Sihong Wu

### FWI 3 Land

*Session Chairs: Zongcai Feng and Gary Hampson*

**Location: 370A**

10:20 AM ...**High-resolution land seismic imaging via elastic multi-parameter FWI:** C. Martinez<sup>1</sup>, J. McLeman<sup>1</sup>, M. Phillips<sup>1</sup>, V. Avramovic<sup>1</sup>, T. Rayment<sup>1</sup>, S. Schmitt<sup>1</sup>, M. Varner<sup>1</sup>, F. Mancini<sup>1</sup>, A. Chahine<sup>2</sup>, O. Al Mamari<sup>2</sup> (1. DUG Technology; 2. CCED) Speaker: James McLeman

10:45 AM ...**Characterizing near surface with full-waveform inversion: A Delaware Basin case study:** W. Kang, R. Yassein, A. Burlakov, M. Ortin, A. Montgomery, R. Hearn, A. Sazykin, G. Busanello, X. Cheng, D. Vigh (SLB) Speaker: Wei Kang

11:10 AM ...**Improved imaging of carbonate caves in Tarim Basin using RFWI:** V. Lopez<sup>1</sup>, M. Zhou<sup>1</sup>, M. Luo<sup>1</sup>, G. Deng<sup>2</sup>, Z. Wang<sup>2</sup>, D. Jiang<sup>3</sup> (1. Sinopec Tech Houston LLC; 2. Sinopec Northwest Company; 3. Sinopec Petroleum Exploration and Production Research Institute) Speaker: Victor Lopez

11:35 AM ...**Leveraging TLFWI and FWI Imaging to overcome geological complexities and acquisition challenges in onshore Mexico:** R. Kumar<sup>1</sup>, Y. Agnihotri<sup>1</sup>, D. Dobesh<sup>1</sup>, H. Ji<sup>1</sup>, M. Wang<sup>1</sup>, S. Mothi<sup>1</sup>, P. Ortega<sup>1</sup>, O. Andrade<sup>1</sup>, A. M. Arteaga<sup>2</sup>, A. Cabrales<sup>2</sup>, A. Vázquez Cantú<sup>2</sup> (1. Viridien; 2. Pemex) Speaker: Ravi Kumar

### GEOPS 2 All about the Hydrocarbon: Where is it and where it came from

*Session Chairs: Ben Kirkland and Ana Vielma*

**Location: 351A**

10:20 AM ...**Timelapse Geochemistry on Búzios Field:** A molecular approach to monitor WAG efficiency: D. S. Dubois<sup>1</sup>, J. P.

Lopes<sup>1</sup>, G. R. Salgueiro<sup>1</sup>, J. M. Godoy<sup>2</sup>, C. L. Torres<sup>2</sup>, D. M. Coutinho<sup>2</sup>, D. E. Reis<sup>2</sup>, R. Castro<sup>2</sup>, A. G. Carvalho<sup>2</sup>, M. C. Santos<sup>2</sup>, C. Yara<sup>2</sup>, L. F. Trindade<sup>2</sup>, F. R. Aquino Neto<sup>2</sup>, D. A. Azevedo<sup>2</sup> (1. Petrobras; 2. Universidade Federal do Rio de Janeiro) Speaker: Daniel Dubois

10:45 AM ...**Geochemical Production Allocation Over Time for a New Field in the Norwegian North Sea:** P. Franco<sup>1</sup>, R. Galimberti<sup>1</sup>, T. U. Garlichs<sup>2</sup>, H. Carvajal<sup>3</sup> (1. Geolog Technologies; 2. Geolog International BV; 3. Geolog Americas) Speaker: Plácido Franco

11:10 AM ...**"Component flow" characteristics of continental shale oil in micro-nano pores and its significance in development:** W. Zhao<sup>1</sup>, C. Bian<sup>1</sup>, W. Liu<sup>1</sup>, Y. Li<sup>1</sup>, Z. Xu<sup>1</sup>, J. Dong<sup>2</sup>, M. Guan<sup>1</sup>, S. Liu<sup>1</sup> (1. Research Institute of Petroleum Exploration and Development, PetroChina; 2. Research Institute of Petroleum Exploration and Development) Speaker: Congsheng Bian

11:35 AM ...**Spatial Heterogeneity of Bone Spring and Wolfcamp Oils and Key Controls on Properties in the Delaware Basin:** X. Sun, C. Walters, T. Zhang (The University of Texas at Austin) Speaker: Xun Sun

### PANEL 1 Mergers & Acquisition Uncovered: Market Trends, Deal Execution, and Career Paths in Oil & Gas A&D and Private Equity

*Moderator: Sean Kimiagar*

**Location: 360A**

10:20 AM ...**Beyond the Rocks: How Technical Experts Became Leaders in Business and M&A:** Panelists: Don Burdick (Olifant Energy), Cristina Stellar (BOK Financial), Peter Dillelt (Birch Resources II)

11:15 AM ...**Raising Capital: What It Takes to Fund an Oil & Gas Startup:** Speakers: Matt Dangel (Red Stag Resources), Richard Ball (Red Stag Resources)

### SP 2 Machine Learning in Seismic Data Processing 1

*Session Chairs: Faruq Akbar and Chaoshun Hu*

**Location: 372B**

10:20 AM ...**Seismic data interpolation based on deep unfolding convolutional dictionary learning:** J. Song<sup>1</sup>, X. Wang<sup>1</sup>, Y. Sui<sup>2</sup> (1. Beijing Jiaotong University; 2. Aramco Research Center - Beijing) Speaker: Junru Song

10:45 AM ...**Machine learning x-t domain antialiasing dip filter with applications for removing ground roll from surface-distributed acoustic sensing land data:** Y. Luo, R. Bachrach, A. Y. Sayed, S. Re, E. Gofer, D. Scarpellini (SLB) Speaker: Yantao Luo

11:10 AM ...**Deep Learning with Wiener Loss for Enhanced Seismic Trace Reconstruction:** H. AlSalmi, C. M. John (Digital Environment Research Institute, Queen Mary University of London) Speaker: Haifa AlSalmi

11:35 AM ...**A transfer learning approach to multichannel wavefield reconstruction with physics-informed neural networks:** F. Brandolin<sup>1</sup>, M. Ravasi<sup>2</sup>, T. Alkhalifah<sup>1</sup> (1. KAUST; 2. Shearwater GeoServices) Speaker: Francesco Brandolin

# Oral Sessions

Tuesday, 26 August

## SS 5 The Business of Oil and Gas 2

Session Chairs: Susan Nash and Judy Schulenberg

Location: 361A

- 10:20 AM...**Career Advancement Network (CAN): Eight years supporting professionals in energy careers:** M. A. Capello<sup>1</sup>, C. Howes<sup>2</sup>, J. Marzoni<sup>3</sup>, J. Calderin<sup>3</sup> (1. Red Tree Consulting, LLC; 2. Subsurface Consultants & Associates; 3. Integrated Project Services, LLC) Speaker: Maria Angela Capello
- 10:45 AM...**Introduction to Carbon Credits and the Voluntary Carbon Market:** J. R. Wheeler (Lee Keeling and Associates) Speaker: John Wheeler
- 11:10 AM...**Challenges and Opportunities for Qualifying Carbon Sequestration Prospects in the Northern Gulf of Mexico Using VHR3D Multi-Streamer Seismic Techniques and Machine Learning:** J. Schulenberg<sup>1</sup>, F. B. Michelsen<sup>2</sup> (1. Explorer Group 1; 2. GeoSurvey Systems) Speaker: Judy Schulenberg
- 11:35 AM...**Enhanced subsurface workflows using GenAI: Automating geological data extraction and prediction from legacy data:** J. Scotchman, A. Davies, T. Butt, M. Booker, L. Cowliff (Halliburton) Speaker: James Scotchman

## SS 6 Passive Seismic Rising 2

Session Chairs: Shujuan Mao and Fabian Pena

Location: 361B

- 10:20 AM...**Daily Elastic Full-Waveform Inversion for Continuous Groundwater Monitoring with Stanford DAS Array:** H. Li<sup>3</sup>, J. Liu<sup>1</sup>, S. Mao<sup>2</sup>, S. Yuan<sup>3</sup>, R. Clapp<sup>3</sup>, B. Biondi<sup>3</sup> (1. MIT; 2. University of Texas at Austin; 3. Stanford University) Speaker: Haipeng Li
- 10:45 AM...**Ambient Noise Tomography using high-density surface geophone arrays for uranium exploration in the central Athabasca Basin:** T. J. Fleure, C. Sicking, W. McLain (Ambient Reservoir Monitoring Inc.) Speaker: Thomas Fleure
- 11:10 AM...**Imaging Basin Structure Using Rayleigh Wave Ellipticity and Teleseismic Receiver Functions:** F. Lin, K. Gkogkas, H. Kim, G. Zaldivar Andrade (University of Utah) Speaker: Fan-Chi Lin
- 11:35 AM...**Passive Seismic Rising:** D. Hollis (Sisprobe SAS) Speaker: Daniel Hollis

## SS 7 Near Surface Geophysics Applied to Geothermal Resource Exploration and Characterization

Session Chairs: Christine Downs and Paul Schwering

Location: 362C

- 10:20 AM...**Conventional exploration workflow applied to geothermal resources:** R. Asuaje, H. Banaja, S. althuwaiqueb, H. Gonzalez (Saudi Aramco) Speaker: Ramon Asuaje
- 10:45 AM...**BRIDGE-ing the gap: Using public geoscience data to gain a conceptual understanding of the subsurface for geothermal exploration:** J. Sellars, L. Batista, G. Plastow, L. Quigly, O. Ward (Sequent) Speaker: Josh Sellars
- 11:10 AM...**Applications of geophysical datasets to the regional assessment of geothermal potential in the Great Basin region, western USA:** N. Wagoner<sup>1</sup>, M. Coolbaugh<sup>1</sup>, J. E. Faults<sup>1</sup>, J. Glen<sup>2</sup>, J. Peacock<sup>2</sup>, T. Earney<sup>2</sup> (1. University of Nevada, Reno; 2. U.S. Geological Survey) Speaker: Nicole Wagoner

- 11:35 AM...**Geothermal Study in Kyushu Island, Japan, Using High-Temperature Superconducting Quantum Magnetic Sensors (SQUIDS):** M. Zhdanov<sup>1</sup>, A. Gribenko<sup>2</sup>, L. Cox<sup>2</sup>, K. Tanabe<sup>3</sup>, T. Hato<sup>3</sup>, A. Tsukamoto<sup>3</sup>, H. Wakana<sup>3</sup> (1. University of Utah; 2. Technolmaging; 3. SUSTEC) Speaker: Michael Zhdanov

## SS 8 History of Petroleum Geosciences

Session Chairs: Matt Silverman and Ali Sloan

Location: 371A

- 10:20 AM...**Discovery of the Permian Basin, Early Field Discoveries, Red Bed Map, and Core Workshop:** R. F. Lindsay<sup>1</sup>, R. Trentham<sup>2</sup> (1. Lindsay Consulting LLC; 2. University of Texas Permian Basin) Speaker: Robert Lindsay
- 10:45 AM...**The deepest and longest wells ever drilled:** R. Sorkhabi (University of Utah) Speaker: Rasoul Sorkhabi
- 11:10 AM...**Fracking with a Nuke: The Gasbuggy Project:** M. Silverman (Consultant) Speaker: Matt Silverman
- 11:35 AM...**Geoscientists, leading the world, really:** R. Willis (Retired) Speaker: Roger Willis

## SS 9 Geoscientists without Borders: Applied Geosciences to Solve Humanitarian Challenges 2

Session Chairs: Cengiz Esmersoy and Robert Merrill

Location: 372C

- 10:20 AM...**Geophysical characterization of groundwater resources in South-Eastern Senegal: Integrating electrical resistivity tomography and transient electromagnetic methods:** A. Tcheheumeni Djanni<sup>1</sup>, S. Uhlemann<sup>2</sup> (1. Cheikh Anta Diop University; 2. Lawrence Berkeley National Laboratory) Speaker: Axel Laurel Tcheheumeni Djanni
- 10:45 AM...**Groundwater recharge and sustainable extraction through resilient forest communities:** A. Shakas<sup>1</sup>, A. Rozin<sup>3</sup>, M. Rowley<sup>4</sup>, T. Arora<sup>2</sup>, S. Pathan<sup>2</sup>, R. Dahiya<sup>2</sup>, N. Widmer<sup>1</sup>, A. Richard-Ferroudj<sup>5</sup>, P. Koppukonda<sup>3</sup> (1. ETH Zurich; 2. NGRI; 3. Sadhana Forest; 4. University of Zurich; 5. Independent Researcher) Speaker: Alexis Shakas
- 11:10 AM...**The geophysical search for unmarked burials in historic Houston cemeteries:** R. Stewart (University of Houston) Speaker: Robert Stewart
- 11:35 AM...**Application of 3D resistivity model-based inversion in presurvey design for landslide investigation at Sa Pa, Lao Cai, Vietnam:** H. H. Doan<sup>2</sup>, P. H. Giao<sup>1</sup>, B. Xuan Hanh<sup>3</sup>, N. Q. Pham<sup>2</sup> (1. PetroVietnam University (PVU); 2. Research Scientist; 3. Transport Engineering Design Incorporated) Speaker: Pham Giao

## STGM 2 Faults, Fractures, and Fluids 2

Session Chairs: David Forand and James Kessler

Location: 362A

- 10:20 AM...**ML Assisted Fracture Interpretation and Applications: A Case Study in Brazilian Pre-Salt Carbonates, Santos Basin, Itapu Field:** L. V. Souza<sup>1</sup>, A. K. Ribeiro<sup>2</sup>, J. A. Souza<sup>2</sup>, A. G. Vasconcelos<sup>3</sup>, T. M. Silva<sup>3</sup>, R. Aguiar<sup>3</sup> (1. Universidade Federal Fluminense; 2. Petrobras; 3. SLB) Speaker: Leonardo Souza
- 10:45 AM...**Fracture Characterization through Integration of disparate real time data set in a structurally Complex Carbonate Reservoir, North Kuwait Jurassic: A Case Study:** C. Pattnaik<sup>1</sup>, S. Al-Ajmi<sup>1</sup>, R. Dolbier<sup>2</sup>, A. Albloushi<sup>1</sup>, R. Nakhi<sup>1</sup>, Y.



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## Tuesday, 26 August

Hassan<sup>1</sup>, R. Narhari<sup>1</sup> (1. Kuwait Oil Company; 2. Shell Kuwait)  
Speaker: Chinmaya Pattnaik

11:10 AM ... **Modeling accurate P32 values during DFN building: No longer guessing input fracture numbers:** S. Rivas-Dorado, B. Bohorquez, A. El Hamady, A. Diaz (Rock Flow Dynamics)  
Speaker: Sam Rivas-Dorado

11:35 AM ... **Fracture networks in Late Jurassic Arab-D outcrops, Saudi Arabia: Insights for subsurface reservoirs:** S. A. Patino, Y. Panara, G. Gairola, V. Vahrenkamp (King Abdullah University of Science and Technology) Speaker: Sebastian Patino

### AAS 1 AVO Inversion 1

*Session Chairs: Venkatesh Anantharamu and Cyrille Reiser*

**Location: 372C**

1:20 PM ..... **Vp/Vs inversion using pre-stack seismic data and domain adaptation-based transfer learning:** A. Dixit, A. Mandal (Indian Institute of Technology Kanpur) Speaker: Anjali Dixit

1:45 PM ..... **Geophysics-informed data-driven fluid estimator:** K. Osyov, M. Gomes, M. Belonosov, S. Singh, F. Jiang (Halliburton) Speaker: Konstantin Osyov

2:10 PM ..... **Comparative analysis of seismic impedance inversion methods featuring a novel rock physics-based machine learning approach:** P. de Groot, U. Strecker, A. Huck, H. Refayee (dGB Earth Sciences) Speaker: Hesham Refayee

2:35 PM ..... **What's The Best Time Interval for Well Log Interpolation?:** J. Zhang, D. Kumar, R. Biswas, K. Wolf, K. Jonke, S. Li, G. Xia, J. Etgen (bp) Speaker: Jingfeng Zhang

### BH 3 Sonic and Signal Processing Techniques

*Session Chairs: Matthew Blyth and Edgar Velez*

**Location: 362B**

1:20 PM ..... **Advanced wellbore dipole sonic imaging of complex lithology and near-wellbore fractures:** B. E. Hornby (Hornby Geophysical Services, LLC) Speaker: Brian Hornby

1:45 PM ..... **Through Tubing Cement Evaluation with An Array Sonic Tool:** R. Wang, Y. Ge, F. H. de Araujo, B. Cabella, X. Wu (Halliburton) Speaker: Ruijia Wang

2:10 PM ..... **A novel guided modes separation method based on spectrum estimation:** Q. Bi, H. Wang (University of Electronic Science and Technology of China) Speaker: Qizhi Bi

2:35 PM ..... **Automated Well Log Depth Matching using Deep Learning-Based Optical Flow Techniques:** L. Fu, T. Lin, Q. Zhang, W. Li (Aramco Americas) Speaker: Lei Fu

### CAEV 3 In Memoriam and In Honor 1

*Session Chairs: Ben Rendall and Akbar Wicaksono*

**Location: 351B**

1:20 PM ..... **Luis Pomar's Legacy: From Carbonate Outcrops to Process-Product Analysis:** G. Mateu Vicens<sup>1</sup>, M. Brandano<sup>2</sup>, J. Baceta<sup>3</sup>, H. Westphal<sup>4</sup> (1. University of the Balearic Islands; 2. Sapienza University of Rome; 3. University of the Basque Country; 4. University of Bremen) Speaker: Guillem Mateu Vicens

1:45 PM ..... **Some carbonate conundrums resolved: A tribute to unique perspectives of Luis Pomar:** P. Hallock (University of South Florida) Speaker: Pamela Hallock

2:10 PM ..... **Resilience of carbonate platforms to mass extinction events: A tribute to Michael T. Whalen:** G. Eberli<sup>1</sup>, E.

Guzmán-Hidalgo<sup>2</sup> (1. University of Miami; 2. Universidad Nacional Autónoma de México) Speaker: Gregor Eberli

### DAS 3 Surface Seismic and Interferometry

*Session Chairs: Milad Bader and Ge Jin*

**Location: 371B**

1:20 PM ..... **Practical Application of Distributed Spiral Cable in Onshore Seismic Exploration:** J. Zhu, B. Liu, J. Wang, J. Zhu (Sinopec Geophysical Company) Speaker: Jing Zhu

1:45 PM ..... **Low frequency ambient noise interferometry and Scholte wave inversion on surface DAS (S-DAS) data in deepwater Gulf of America:** S. Riseman<sup>1</sup>, A. Y. Sayed<sup>1</sup>, Z. T. Jackson<sup>1</sup>, R. Bachrach<sup>1</sup>, R. Dash<sup>2</sup>, Y. Tian<sup>2</sup>, I. Lim Chen Ning<sup>2</sup>, S. Oppert<sup>2</sup> (1. SLB; 2. Chevron) Speaker: Seth Riseman

2:10 PM ..... **Health Monitoring of Dam Using Distributed Acoustic Sensing and Seismic Interferometry:** J. Guan, F. Cheng, J. Xia (Zhejiang University) Speaker: Jianbo Guan

2:35 PM ..... **Near-surface variations captured by continuous DAS and Surface Orbital Vibrators monitoring:** S. Yavuz<sup>1</sup>, R. Isaenkov<sup>2</sup>, B. Gurevich<sup>2</sup>, J. Correa<sup>3</sup>, B. Freifeld<sup>4</sup>, R. Pevzner<sup>2</sup> (1. Silixa; 2. Curtin University; 3. Lawrence Berkeley National Laboratory; 4. Class VI Solutions) Speaker: Sinem Yavuz

### DMLA 1 Subsurface Model Building

*Session Chairs: Kun Guo and Anusha Sekar*

**Location: 372A**

1:20 PM ..... **Data-driven initial shear-wave velocity model building for elastic full-waveform inversion:** N. P. Pham, S. D. Phan, H. Di, T. Zhao, W. Hu (SLB) Speaker: Nam Pham

1:45 PM ..... **Expert-in-the-loop Adaptive AI for multi-attribute driven Velocity Scenario Generation:** A. Gala, C. Docherty, P. Devarakota, J. J. Kimbro (Shell) Speaker: Apurva Gala

2:10 PM ..... **Applications of deep neural networks for velocity model building:** Ø. Korsmo, S. Crawley, N. Chemingui (TGS) Speaker: Nizar Chemingui

2:35 PM ..... **Leveraging Phase Neural Operator for microseismic phase arrival picking:** A. Abdullin<sup>1</sup>, U. Waheed<sup>1</sup>, L. Eisner<sup>2</sup> (1. King Fahd University of Petroleum and Minerals; 2. Seismik s.r.o) Speaker: Umair Bin Waheed

### FWI 2 Machine Learning 2

*Session Chairs: Hong Liang and Rongrong Lu*

**Location: 370A**

1:20 PM ..... **Application of Siamese Neural Network for Multi-parameter Elastic Full Wave Inversion:** O. M. Saad, T. Alkhalifah (King Abdullah University of Science and Technology, Thuwal, Kingdom of Saudi Arabia (KAUST)) Speaker: Omar M. Saad

1:45 PM ..... **Score-based generative models for anisotropic full-waveform inversion in the presence of salt bodies:** A. Dhara<sup>2</sup>, D. Voytan<sup>1</sup>, S. Ravula<sup>1</sup>, J. Bronson<sup>1</sup>, A. Ardel<sup>1</sup>, R. Tuv<sup>1</sup>, Y. Gandhi<sup>1</sup>, S. Hu<sup>2</sup>, Y. Xie<sup>2</sup>, M. Sen<sup>2</sup> (1. Avathon; 2. The University of Texas at Austin) Speaker: Arnab Dhara

2:10 PM ..... **Neural network multiphysics joint inversion: Merging seismic waveform, gravity, and direct current resistivity data:** T. Zhang, K. Innanen (University of Calgary) Speaker: Tianze Zhang

2:35 PM ..... **Hybrid UFNO-FWI: Enhancing full waveform inversion through iterative neural networks:** C. A. Leao<sup>2</sup>, R. Pestana<sup>1</sup>,



# Oral Sessions

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D. Revelo<sup>2</sup>, D. F. Pacheco<sup>2</sup>, V. Koehne<sup>3</sup> (1. Federal University of Bahia; 2. SENAI-CIMATEC; 3. SENAI CIMATEC HPC Center (Non-Author)) Speaker: Victor Koehne

## GEOPS 3 Setting the Stage: Source Facies and Paleoenvironment

*Session Chairs: Tim Ruble and Aaron Summerfield*

**Location: 351A**

1:20 PM.....**H<sub>2</sub>S in a deepwater well in the Gulf of Mexico: Geochemical assessment of the origin of an unwelcome guest:** I. Arango<sup>1</sup>, F. Gelin<sup>2</sup>, P. Evans<sup>1</sup>, K. Ogden<sup>1</sup>, T. Kozel<sup>1</sup>, J. Wang<sup>1</sup>, H. Zhou<sup>2</sup> (1. Chevron; 2. TotalEnergies) Speaker: Irene Arango

1:45 PM.....**Use of scavenging reservoirs to unlock stranded sour hydrocarbons plus hydrogen byproduct:** S. Stewart, S. Arkadaskiy, J. Ismail (Saudi Aramco) Speaker: Simon Stewart

2:10 PM.....**Comparing the palynology of the onshore and offshore Wilcox Group:** V. Smith<sup>1</sup>, M. A. Lorente<sup>1</sup>, D. Bord<sup>1</sup>, L. G. Moscardelli<sup>2</sup>, I. Olariu<sup>2</sup>, I. Prince<sup>3</sup> (1. Ellington Geological Services; 2. Bureau of Economic Geology; 3. Shell International Exploration and Production) Speaker: Vann Smith

2:35 PM.....**Cretaceous Source Rocks, Powder River Basin, Wyoming and Montana:** S. Sonnenberg (Colorado School of Mines) Speaker: Stephen Sonnenberg

## SP 3 Velocity Model Building and Tomography

*Session Chairs: Odette Aragao and Olga Zdraveva*

**Location: 372B**

1:20 PM.....**Velocity model building with uncertainty quantification using a multi-modal autoregressive generative network:** R. Harsuko, S. Cheng, T. Alkhalifah (King Abdullah University of Science and Technology) Speaker: Randy Harsuko

1:45 PM.....**An initial velocity model building method based on multimodal texture transfer network:** L. Wang, J. Liang, S. Liang, J. Zhu, K. Xin, Z. Wang (BGP) Speaker: Lei Wang

2:10 PM.....**Automated Residual Moveout Surface picking with machine learning model on 5D OBN CIGs:** W. Pan<sup>1</sup>, S. Ye<sup>3</sup>, H. Rynja<sup>2</sup>, J. Beishuizen<sup>4</sup>, J. Chen<sup>1</sup>, J. Vila<sup>1</sup>, P. Webster<sup>3</sup> (1. Shell Information Tech. International Inc.; 2. Shell International Exploration & Production Company; 3. Shell International Exploration & Production Company; 4. Shell Global Solutions International B.V.) Speaker: Wen Pan

2:35 PM.....**A Flexible Framework for Constrained Dix Inversion using Alternating Direction Method of Multipliers:** V. Akcelik, A. Rueger, L. Casasanta (Shearwater GeoServices, UK) Speaker: Volkan Akcelik

## SS 10 AAPG Academy 1

*Session Chairs: Andrew Davidoff and Matthias Imhof*

**Location: 360A**

1:20 PM.....**Enhanced Productivity in Naturally Fractured Karstified Reservoirs: A Case Study from the Brazilian Presalt:** R. Correa<sup>1</sup>, B. B. Carvalho<sup>1</sup>, E. Ukar<sup>2</sup>, A. Fall<sup>2</sup>, A. Pestilho<sup>3</sup>, S. E. Laubach<sup>2</sup> (1. Petrobras; 2. The University of Texas at Austin; 3. Universidade de São Paulo) Speaker: Rodrigo Correa

1:45 PM.....**New Technologies for Enabling Increases in Recoverable Reserves:** S. S. Nash (AAPG) Speaker: Susan Nash

2:10 PM.....**Assessing the Impact of Natural Fractures on Reservoir Plumbing:** J. Lorenz (FractureStudies LLC) Speaker: John Lorenz

2:35 PM.....**Bridging ai and geology: The role of large language models in the future of geoscience:** Y. Xiao<sup>1</sup>, J. Ye<sup>2</sup> (1. Yunqi Academy of Engineering; 2. Zhejiang Laboratory) Speaker: Yitian Xiao

## SS 11 Emerging Geoscience Technologies for Geothermal Energy 1

*Session Chairs: Erkan Ay and Lianjie Huang*

**Location: 361A**

1:20 PM.....**Testing Needs for SuperHot Rock Geothermal Energy:** S. Petty (HotRock Energy Research Organization) Speaker: Susan Petty

1:45 PM.....**Unlocking Gigawatt-Scale Enhanced Geothermal: The Critical Role of Geoscience Technologies:** S. Dadi (Fervo Energy) Speaker: Sireesh Dadi

2:10 PM.....**An Active Tracer for Hydraulic Control of Cooled Short Circuits:** A. J. Hawkins (Clemson University) Speaker: Adam Hawkins

2:35 PM.....**Geothermal play fairway analysis in the Great Basin region:** N. Wagoner<sup>1</sup>, J. E. Faulds<sup>1</sup>, M. Coolbaugh<sup>1</sup>, C. Lindsey<sup>1</sup>, W. Trainor-Guitton<sup>2</sup> (1. University of Nevada, Reno; 2. National Renewable Energy Laboratory) Speaker: Nicole Wagoner

## SS 12 Geophysics for Urban Spaces and Infrastructure 1

*Session Chairs: Haipeng Li and Jingxiao Liu*

**Location: 362C**

1:20 PM.....**Distributed fiber optic sensing of bridge structures:** G. Arulananthan, N. Opperman, C. Wu, J. C. Hampton (University of Wisconsin-Madison) Speaker: Jesse Hampton

1:45 PM.....**Efficient DAS Ambient Noise Imaging Around Infrastructure with SVD Compression:** G. Brooks, E. Martin (Colorado School of Mines) Speaker: Eileen Martin

2:10 PM.....**Rapid Building Damage Assessment for the 2023 M7.8 Turkey Earthquake Sequence Using Satellite Imagery and Causal Bayesian Networks:** X. Li, S. Xu (Johns Hopkins University) Speaker: Xuechun Li

2:35 PM.....**Site characterization for seismic hazard assessment using telecom cables on the MIT campus in Cambridge, Massachusetts:** H. Chang<sup>1</sup>, N. Nakata<sup>2</sup> (1. Massachusetts Institute of Technology; 2. LBNL/MIT) Speaker: Hilary Chang

## SS 13 Recent Advances and the Road Ahead: Hot Topics in Geoscience 1

*Session Chairs: Sergio Chávez-Pérez and Stephan Gelinsky*

**Location: 371A**

1:20 PM.....**Illuminating the subsurface: How geology and rock physics help to understand what we image:** S. Gelinsky (Ephangeli Enterprises) Speaker: Stephan Gelinsky

1:45 PM.....**Studying Viscoplastic Stress Relaxation in the Lab and Applying it to Optimizing Multi-Stage Hydraulic Fracturing in the Field:** M. D. Zoback (Stanford University) Speaker: Mark Zoback

2:10 PM.....**From Airborne Electromagnetic Data, through Field-Scale Rock Physics, to Images of the Groundwater Systems of California's Central Valley:** R. Knight (Stanford University) Speaker: Rosemary Knight





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2:35 PM.....**4D seismic using low-frequency, ambient-noise Scholte wave interferometry on surface DAS: Amos Nur's legacy, new energy and CCS applications:** R. Bachrach, S. Re, E. Gofer (SLB) Speaker: Ran Bachrach

### STGM 3 Petroleum System Tectonics and Structural Styles: Lithosphere to Thin Section 1

*Session Chairs: Jim Hnat and David Lewis*

**Location: 362A**

1:20 PM.....**WITHDRAWN**

1:45 PM.....**Igneous-influenced hydrocarbon traps beneath Idaho's Western Snake River Plain: Insights from seismic and well log analysis:** M. Barton (Idaho Geological Survey) Speaker: Mark Barton

2:10 PM.....**Petroleum system evaluation and structural evolution of the Northern Egyptian Red Sea: Insights from onshore and offshore analysis:** A. M. Noureldin<sup>1</sup>, G. Saleh<sup>2</sup>, M. Radwan<sup>1</sup> (1. EUG; 2. SLB) Speaker: Ahmed Noureldin

2:35 PM.....**Early Crustal Deformation and Petroleum Prospectivity of the Northern Pelotas Basin:** K. Reuber, D. Unger, H. Houlléviq (TGS) Speaker: Kyle Reuber

### USC 2 Studies of Geologic and Geophysical Processes: Permian Basin and Eastern Shelf System 1

*Session Chairs: Cucha Lopez and Mitch Schneider*

**Location: 361B**

1:20 PM.....**Ellenburger Paleokarst in Midland Basin: New insights:** H. Zeng, R. Loucks, X. Janson (The University of Texas at Austin) Speaker: Hongliu Zeng

1:45 PM.....**Revising the location and character of the Grenville fold and thrust front in West Texas and southeast New Mexico using 3D seismic reflection data: Implications for crustal structure and induced seismicity:** E. A. Horne<sup>2</sup>, P. H. Hennings<sup>2</sup>, C. J. Lopez<sup>1</sup>, D. F. Stockli<sup>2</sup> (1. ExxonMobil; 2. The University of Texas at Austin) Speaker: Elizabeth Horne

2:10 PM.....**Well log foundation model: Making promptable AI models for interpretation:** B. G. Lasscock, K. Gonzalez, A. Sansal, A. Valenciano (TGS) Speaker: Ben Lasscock

2:35 PM.....**Comparison of Completions and Production from Permian Basin Landing Zones:** T. P. McMahon (University of Texas at Austin) Speaker: Timothy McMahon

### AAS 2 Stochastic Seismic Inversion and Analysis

*Session Chairs: Prashant Mishra and Jingfeng Zhang*

**Location: 372C**

3:40 PM.....**Scaling WEB-AVO Inversion on the cloud for enhanced uncertainty quantification:** P. Doulgeris<sup>1</sup>, M. Kajita<sup>2</sup>, P. Haffinger<sup>1</sup>, D. Gisolf<sup>1</sup>, N. Chasnikov<sup>1</sup> (1. Delft Inversion; 2. Amazon Web Services) Speaker: Panos Doulgeris

4:05 PM.....**Automated Well-tie System (AWSM) for seismic depth calibration and wavelet estimation using Parallel Tempering MCMC (PT-MCMC): A Midland basin case study:** U. Lim, T. Wagoner, R. Cardona (Chevron U.S.A. Inc.) Speaker: Un Young Lim

4:30 PM.....**Seismic inversion based on Markov chain Monte Carlo algorithms and attention mechanisms:** L. Yang, H. Lv, Z. Ding, L. Yin (Sinopec Geophysical Research Institute Co.,Ltd) Speaker: Liuxin Yang

4:55 PM.....**Power-scaled Bayesian inference with score-based generative models:** H. Erdinc, Y. Zeng, A. Gahlot, F. J. Herrmann (Georgia Institute of Technology) Speaker: Huseyin Tuna Erdinc

### CAEV 4 In Memoriam and In Honor 2

*Session Chairs: Ted Playton and Arnoud Slootman*

**Location: 351B**

3:40 PM.....**Sedimentary facies and depositional model of Permian-Triassic Khuff Formation in Southern Arabian Gulf:** A. S. Alsharhan (Middle East Geological & Environmental Establishment) Speaker: Abdulrahman Alsharhan

4:05 PM.....**Growth History of an Enduring Empty Bucket: The Al Wajh Carbonate Platform of Saudi Arabia:** V. Vahrenkamp<sup>2</sup>, I. Putri<sup>1</sup>, A. N. Wicaksono<sup>2</sup>, T. Luedmann<sup>3</sup>, C. Betzler<sup>3</sup>, G. Frijia<sup>4</sup>, A. Cipriani<sup>5</sup>, T. Chirakal<sup>2</sup>, A. Petrovic<sup>6</sup> (1. KAUST; 2. KAUST (King Abdullah University of Science and Technology); 3. Universität Hamburg; 4. Università di Ferrara; 5. Dipartimento di Scienze Chimiche e Geologiche; 6. Carmeuse) Speaker: Volker Vahrenkamp

4:30 PM.....**Fifty years of research on the Joulter ooid sandbody: An invaluable subsurface analog:** P. M. Harris (Univ. of Miami) Speaker: Paul Harris

### DAS 4 Innovative Applications 1

*Session Chairs: Yuanyuan Ma and Aleksei Titov*

**Location: 371B**

3:40 PM.....**Towards low-cost wellbore evaluation: The experiment:** I. Lim Chen Ning<sup>1</sup>, B. Harvey<sup>1</sup>, T. Tokar<sup>1</sup>, M. Terry<sup>1</sup>, F. Wedjane<sup>1</sup>, L. Grohman<sup>1</sup>, P. Adegboye<sup>1</sup>, V. Torrealba<sup>1</sup>, A. Garioch<sup>2</sup>, S. Milne<sup>2</sup> (1. Chevron USA Inc.; 2. Well-Sense Technology Ltd) Speaker: Ivan Lim Chen Ning

4:05 PM.....**Utilizing Low-Frequency DAS to Evaluate Cement Quality for Horizontal Wells:** S. Jin, G. Jin (Colorado School of Mines) Speaker: Shenyao Jin

4:30 PM.....**Towards Fiber-Optic Geodesy: Capturing Rapid Dynamics of Magma Intrusions in Iceland with LFDAS:** J. Li<sup>2</sup>, E. Biondi<sup>1</sup>, E. Heimisson<sup>5</sup>, V. Hjörleifsdóttir<sup>3</sup>, S. Puel<sup>1</sup>, Q. Zhai<sup>1</sup>, S. Zhang<sup>1</sup>, X. Wei<sup>1</sup>, E. Bird<sup>1</sup>, V. Kamalov<sup>4</sup>, H. Geirsson<sup>5</sup>, Z. Zhan<sup>1</sup> (1. Caltech; 2. University of Houston; 3. Reykjavik University; 4. Valey Kamalov LLC; 5. University of Iceland) Speaker: Jiaxuan Li

4:55 PM.....**Bridge Modal Analysis and Displacement Estimation using DAS data:** Y. Zhong, C. Gu, P. Wu, Z. Yuan, Z. Chen, J. He (Tsinghua University) Speaker: Yichen Zhong

### DMLA 2 Surrogate Models and Image Enhancement

*Session Chairs: Adam Halpert and Ana Krueger*

**Location: 372A**

3:40 PM.....**Seismic image super-resolution with denoising diffusion probabilistic model:** Y. Ni, N. Pham, W. Hu, T. Zhao (SLB) Speaker: Yiyu Ni

4:05 PM.....**CO<sub>2</sub> Enhanced Oil Recovery Through Digital Shadow Modeling:** H. Li<sup>1</sup>, A. Gahlot<sup>1</sup>, O. Møyner<sup>2</sup>, F. J. Herrmann<sup>1</sup> (1. Georgia Institute of Technology; 2. SINTEF Digital) Speaker: Haoyun Li

4:30 PM.....**From Bayesian inversion to decision: Rapid screening and clustering of thousands of reservoir scenarios through ML-based flow diagnostics:** A. Fathi, Z. Chen, Q. Nguyen,

# Oral Sessions

Tuesday, 26 August

B. Wheelock, S. Richardson, M. Len, K. Daly, G. Seastream (ExxonMobil) Speaker: Arash Fathi

4:55 PM.....**ML-based proxy model for predicting contamination clean-up in highly deviated wells:** L. Xu, C. Jeong, Y. Chang, J. J. Pop, A. Dykes, S. A. Haq (SLB) Speaker: Liangyu Xu

## **FWI 4 Objective Functions and Uncertainty**

*Session Chairs: Ludovic Métivier and Juan Wang*

**Location: 370A**

3:40 PM.....**Multi-dimensional AWI: Theory and application in the Eastern Mediterranean:** J. Reilly<sup>1</sup>, T. Nangoo<sup>1</sup>, A. Umpleby<sup>1</sup>, N. Shah<sup>1</sup>, M. Warner<sup>2</sup>, H. A. Debens<sup>3</sup>, J. Cai<sup>3</sup>, T. Castro Leyva<sup>3</sup> (1. S-Cube; 2. Imperial College London; 3. Woodside Energy) Speaker: Tenice Nangoo

4:05 PM.....**Intrinsic connection of traditional FWI and travel-time inversion:** L. Tan, J. Yuan (Advanced Geophysical Technology, Inc.) Speaker: Lijian Tan

4:30 PM.....**Uncertainty quantification in time-lapse full waveform inversion: A comparative study of Hamiltonian Monte Carlo and Stein Variational Gradient Descent:** J. Li, K. Innanen (University of Calgary) Speaker: Jinji Li

4:55 PM.....**Demigration-based reflection full waveform inversion using dynamic matching misfit function:** H. Liang<sup>1</sup>, Y. Kim<sup>2</sup>, M. Dmitriev<sup>2</sup> (1. Aramco Americas: Aramco Research Center-Houston; 2. EXPEC Advanced Research Center, Saudi Aramco) Speaker: Hong Liang

## **GEOPS 4 Are you up to date? What's new and what's working**

*Session Chairs: Humberto Carvajal and Catherine Donohue*

**Location: 351A**

3:40 PM.....**Maximizing Uinta Basin oil well yield through isotopic fingerprinting of flow-back waters:** T. W. Day<sup>1</sup>, J. H. McBride<sup>1</sup>, L. Burgener<sup>1</sup>, S. M. Hudson<sup>1</sup>, R. Brinkerhoff<sup>2</sup>, S. Phillips<sup>3</sup> (1. Brigham Young University; 2. Consultant; 3. Wasatch Energy Management) Speaker: Troy Day

4:05 PM.....**Gas intake experiments in oil-bearing Eagle Ford shale at reservoir pressure and effect of gas types on enhanced oil recovery:** T. Zhang<sup>1</sup>, X. Li<sup>1</sup>, X. Sun<sup>1</sup>, B. Gates<sup>2</sup> (1. The University of Texas at Austin; 2. Ageron Energy LLC) Speaker: Tongwei Zhang

4:30 PM.....**Evaluation of gas compositions and compound-specific isotopes from hydrous pyrolysis of coal:** P. Srinivasan<sup>1</sup>, Q. Fu<sup>2</sup>, T. Sun<sup>2</sup>, J. Radovic<sup>2</sup> (1. Aramco Americas; 2. University of Houston) Speaker: Poorna Srinivasan

4:55 PM.....**Evolving insights from diamondoids in a global hydrocarbon fluid dataset:** R. van der Ploeg<sup>1</sup>, C. Plet<sup>2</sup>, F. Akbas<sup>2</sup>, J. Weijers<sup>2</sup>, S. van den Boorn<sup>2</sup>, P. van Bergen<sup>3</sup> (1. Shell International Exploration & Production Company; 2. Shell Global Solutions International B.V.; 3. Shell Research Ltd.) Speaker: Robin van der Ploeg

## **SP 4 Near Surface Solution and Elastic 2**

*Session Chairs: Milos Delic and Mandy Wong*

**Location: 372B**

3:40 PM.....**A simple method for high-precision converted-wave (P-SV) static corrections:** F. Feng, C. Hu, X. Bai, Z. Du, B. Yu, C. Wang, L. Wu, Q. Ma, M. Wang, Y. Lan (BGP, CNPC) Speaker: Faquan Feng

4:05 PM.....**Integration preconditioning for ocean bottom node data:** A. Jafargandomi, A. Kumar, S. Giron (Shearwater GeoServices) Speaker: Arash Jafargandomi

4:30 PM.....**Short wavelength residual statics correction with ORKA algorithm:** Y. Xu (Harbin Institute of Technology) Speaker: Yiixn Xu

4:55 PM.....**An intelligent multi-mode surface wave suppression method based on dispersion:** Y. Sun, Z. Guo, J. An, J. Wang, Y. Yang, Y. Yu (BGP, CNPC) Speaker: Yunsong Sun

## **SS 14 AAPG Academy 2**

*Session Chairs: Andrew Davidoff and Matthias Imhof*

**Location: 360A**

3:40 PM.....**Characterization of Basement Rocks for the Next-Generation Geothermal Energy Exploration:** S. Bhattacharya<sup>1</sup>, B. Young<sup>1</sup>, A. Turan<sup>2</sup> (1. The University of Texas at Austin; 2. Independent) Speaker: Shuvajit Bhattacharya

4:05 PM.....**Using a basin modeling approach to estimate geothermal resources in deep hot sedimentary basins:** J. Birdwell, S. Gelman, R. Gardner, E. Burns (U.S. Geological Survey) Speaker: Justin Birdwell

4:30 PM.....**From Artesian Well to Global Reserves: Libya's Oil Exploration Story:** H. Refayee (dGB Earth Sciences) Speaker: Hesham Refayee

4:55 PM.....**3D basin modeling for predicted hydrocarbon trends in the Campos-Santos-Espirito Santo basins, Brazil:** S. Cornelius (University of Houston) Speaker: Sharon Cornelius

## **SS 15 Emerging Geoscience Technologies for Geothermal Energy 2**

*Session Chairs: Erkan Ay and Joel Le Calvez*

**Location: 361A**

3:40 PM.....**A Technological Path Towards Superhot Geothermal:** R. Mellors (ARPA-E) Speaker: Robert Mellors

4:05 PM.....**Current Activities at the Utah Frontier Observatory for Research in Geothermal Energy (FORGE):** J. Moore (University of Utah) Speaker: Joseph Moore

4:30 PM.....**Seeking Energy Resiliency on Department of Defense Installations using Geothermal Power:** A. Sabin (US Navy) Speaker: Andrew Sabin

4:55 PM.....**Discussion**



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## Tuesday, 26 August

### SS 16 Monitoring of the Near Surface Earth

*Session Chairs: Moses Adebayo and Lee Slater*

**Location: 362B**

- 3:40 PM.....**Repeated geoelectrical monitoring of soils across coastal interfaces reveals changes in soil hydrology and biogeochemistry:** K. Doro, E. Emmanuel, O. Q. Ogunsola, P. I. Olabode (University of Toledo) Speaker: Kennedy Doro
- 4:05 PM.....**A Generative ML-Based Inversion Approach for Calibrating Flow and Transport Models with ERT Monitoring Data:** T. C. Johnson, G. Hammond, P. Jaysaval, R. Mackley (Pacific Northwest National Laboratory) Speaker: Tim Johnson
- 4:30 PM.....**4D Monitoring of Natural and Managed Aquifer Recharge via Seismic Interferometry:** S. Mao<sup>1</sup>, W. L. Ellsworth<sup>2</sup>, Y. Zheng<sup>3</sup>, G. C. Beroza<sup>2</sup> (1. The University of Texas at Austin; 2. Stanford University; 3. The University of Texas at Dallas) Speaker: Shujuan Mao
- 4:55 PM.....**Investigating permafrost degradation beneath beaver ponds in northwestern Alaska using ground-penetrating radar:** J. Sriharan<sup>1</sup>, R. Rangel<sup>1</sup>, K. Tape<sup>2</sup>, B. Jones<sup>2</sup>, M. Loranty<sup>3</sup>, T. Glass<sup>2</sup>, V. Zavoico<sup>2</sup>, P. Kehoe<sup>2</sup>, S. Johnston<sup>2</sup>, J. Clark<sup>2</sup>, C. Maio<sup>2</sup> (1. University of Toronto; 2. University of Alaska Fairbanks; 3. Colgate University) Speaker: Jananee Sriharan

### SS 17 Geophysics for Urban Spaces and Infrastructure 2

*Session Chairs: Eileen Martin and Sayan Mukherjee*

**Location: 362C**

- 3:40 PM.....**Leveraging Passive Seismic Monitoring for Urban Water and Energy Sustainability:** S. Mao<sup>1</sup>, G. C. Beroza<sup>2</sup>, W. L. Ellsworth<sup>2</sup> (1. The University of Texas at Austin; 2. Stanford University) Speaker: Shujuan Mao
- 4:05 PM.....**Telecommunications Infrastructure and Distributed Fiber Sensing:** A. Chavarria (VIAVI Solutions) Speaker: Andres Chavarria
- 4:30 PM.....**Multi-purpose urban monitoring with embedded distributed acoustic sensing: Traffic visualization and water pipeline assessment:** J. Saw, M. Jasiak, S. Chiu, K. Soga (UC Berkeley) Speaker: Jaewon Saw
- 4:55 PM.....**Building environment and human activity monitoring across multistory DAS arrays:** C. Gu<sup>1</sup>, Y. Zhong<sup>1</sup>, P. Wu<sup>1</sup>, M. Fehler<sup>2</sup>, G. Prieto<sup>3</sup>, D. Wang<sup>1</sup>, Z. Yuan<sup>1</sup>, Z. Chen<sup>1</sup>, J. He<sup>1</sup> (1. Tsinghua University; 2. Fehler Consultancy LLC; 3. Universidad Nacional de Colombia) Speaker: Chen Gu

### SS 18 Recent Advances and the Road Ahead: Hot Topics in Geoscience 2

*Session Chairs: Sergio Chávez-Pérez and Stephan Gelinsky*

**Location: 371A**

- 3:40 PM.....**On the Origin of (Digital) Species: A Tribute to Sven Treitel:** C. Liner (University of Arkansas) Speaker: Christopher Liner
- 4:05 PM.....**Linear and nonlinear operators in seismic data analysis:** S. Fomel (University of Texas at Austin) Speaker: Sergey Fomel
- 4:30 PM.....**Three tales of elegant mathematics in seismic-imaging geophysics: A tribute to Sven Treitel:** J. A. Dellinger, J. Etgen (BP) Speaker: Joe Dellinger
- 4:55 PM.....**Rock Physics based inversion of seismic data using neural networks: A collaboration with Sven Treitel:** M. Chapman (University of Edinburgh) Speaker: Mark Chapman

### STGM 4 Geomechanics 1

*Session Chairs: Jose Adachi and Yaser Alzayer*

**Location: 362A**

- 3:40 PM.....**Overpressure and fluid flow in mud volcano systems: Insights from the Giza mud volcano, offshore West Nile Delta:** R. Gulmammadov<sup>2</sup>, S. J. Covey-Crump<sup>1</sup>, M. Huuse<sup>1</sup>, J. Heller<sup>2</sup> (1. The University of Manchester; 2. Ikon Science) Speaker: Rashad Gulmammadov
- 4:05 PM.....**Geomechanical risk assessment for CO<sub>2</sub> storage in the North Sea's Luna site: A seismic-driven coupled compositional flow and geomechanics approach:** A. Haghi, P. Park, R. Porjesz (Viridien) Speaker: Amir Haghi
- 4:30 PM.....**Prediction of geomechanical parameters combining drilling and logging data:** M. Dong, H. Chen (Tongji University) Speaker: Mengxun Dong
- 4:55 PM.....**Predicting carbonate-rich hydraulic fracture baffles and barriers via a simple integrated screening methodology:** E. Gross, Y. Tan, J. Wang, L. Li (Chevron) Speaker: Evan Gross

### USC 3 Studies of Geologic and Geophysical Processes: Pacific Region and Canada

*Session Chairs: Alex Bruner and Scott Singleton*

**Location: 361B**

- 3:40 PM.....**Hidden canyons of the mid-Campanian unconformity and converging shelf margins: Upper Cretaceous Brookian Sequence sediment routing, North Slope Alaska:** J. Covault (The University of Texas at Austin) Speaker: Jake Covault
- 4:05 PM.....**Petroleum system of offshore Labrador, Canada Call for Bids 2025:** A. K. Hartwig, H. Houlevigue, K. Reuber, S. Tierrablanca (TGS) Speaker: Andrew Hartwig
- 4:30 PM.....**Anisotropy impacted AVO response: An example from offshore Newfoundland, Canada:** K. Jonke, D. Kumar, S. Li, J. Zurbuchen, C. Purcell, D. Ni (bp) Speaker: Katarina Jonke
- 4:55 PM.....**Depositional controls on reservoir quality within the Early Triassic Montney Formation (Coquina Dolomite) at Kaybob South Triassic Field, Alberta Canada:** A. Alberti (Baylor University) Speaker: Anna Alberti

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# Oral Sessions

Wednesday, 27 August

## AAS 3 Poststack Seismic Inversion

Session Chairs: William Hernandez and Dip Singha

Location: 372C

- 8:00 AM.....**Acoustic impedance inversion method based on adaptive wavelet:** L. Zhao, D. Cao (China University of Petroleum - East China) Speaker: Lian Zhao
- 8:25 AM.....**3D Seismic Characterization of the Arbuckle Group in the Wellington Field, South-Central Kansas:** M. A. Tsiboe<sup>1</sup>, G. P. Tsofilas<sup>1</sup>, B. R. Bream<sup>2</sup> (1. University of Kansas; 2. Kansas Geological Survey) Speaker: Mary Tsiboe
- 8:50 AM.....**Unmasking Stratigraphy: Lithology-Driven Spectral Decomposition with EEI:** R. Negrete, K. E. Onofre Alviso, K. Vazquez Reyes (Harbour Energy) Speaker: Rocio Negrete
- 9:15 AM.....**Distance and Quadrant attributes applied to the Volve field, offshore Norway: A feasibility study:** N. Choudhry<sup>1</sup>, H. Bedle<sup>1</sup>, D. B. Neff<sup>2</sup>, W. H. Neff<sup>2</sup> (1. University of Oklahoma; 2. Phillips Petroleum (Retired)) Speaker: Noor ul huda Choudhry

## AFR 1 Africa's Exploration Past and Future Opportunities

Session Chairs: Jean-Christophe Bosset and William Bosworth

Location: 361A

- 8:00 AM.....**High impact exploration in Africa since 2020:** J. Collard<sup>1</sup>, G. Bagley<sup>2</sup> (1. Westwood Global Energy Group; 2. Westwood (Non-Author)) Speaker: Graeme Bagley
- 8:25 AM.....**Revised Jurassic chronostratigraphy of the Western Desert, Egypt, and its implications for oil and gas exploration:** D. F. Stockli, W. Bosworth (University of Texas at Austin) Speaker: Daniel Stockli
- 8:50 AM.....**New Concepts in the Cretaceous Rifts of Liberia:** K. W. Carlson (KC Geoscience Consulting) Speaker: Karen Carlson
- 9:15 AM.....**Hidden in Plain Sight: Potential Giant Discoveries Missed for Non-Geological Reasons:** G. T. Penfield (Chicxulub Geosciences) Speaker: Glen Penfield

## BM 1 Petroleum System Analysis and Modeling

Session Chairs: Lukasz Krawczynski and Fausto Mosca

Location: 351A

- 8:00 AM.....**Generation, migration and hydrocarbon characterization of the Pre-Salt, Santos Basin:** M. A. dos Reis<sup>1</sup>, H. Pentead<sup>1</sup>, A. J. Vieira<sup>1</sup>, A. Svartman Dias<sup>1</sup>, A. L. Spigolon<sup>1</sup>, C. V. Araujo<sup>2</sup>, C. P. Fracalossi<sup>1</sup>, C. M. Caetano<sup>1</sup>, C. D. Lima<sup>1</sup>, C. F. Silva<sup>1</sup>, E. T. Moraes<sup>1</sup>, E. V. dos Santos Neto<sup>3</sup>, J. P. Lopes<sup>1</sup>, J. A. Iemini<sup>1</sup>, L. M. de Araújo<sup>2</sup>, T. R. Menezes<sup>1</sup>, Y. d. Rocha<sup>1</sup> (1. PETROBRAS; 2. Associação Brasileira de Geólogos do Petróleo; 3. Universidade Federal Fluminense) Speaker: Maria Anna dos Reis
- 8:25 AM.....**Controls and predictions of oil accumulations and column heights in gas dominated petroleum systems:** L. Krawczynski (Top Down PSA) Speaker: Lukasz Krawczynski
- 8:50 AM.....**A new approach to predict heat flow and petroleum systems on complex margins: Insights from the Brazilian Atlantic margin:** D. Paton<sup>1</sup>, P. J. Markwick<sup>2</sup>, J. Naliboff<sup>4</sup>, T. Rajaonarison<sup>4</sup>, L. Xue<sup>4</sup>, M. C. Araujo<sup>3</sup> (1. Tectonknow; 2. Knowing Earth; 3. Petrobras; 4. NMT) Speaker: Douglas Paton
- 9:15 AM.....**Guyana-Surinam basin: An Example of the Impact of Overpressure on Drainage Area and Charge History; Insight**

**from 3D Basin Modeling:** T. Cornu, J. Mathieu, S. Tenepalli, e. zagotto, a. guin (TotalEnergies) Speaker: Tristan Cornu

## CAEV 5 Unconventional Carbonate Systems

Session Chairs: Cody Miller and Matt Wasson

Location: 351B

- 8:00 AM.....**Controls on porosity and permeability in unconventional reservoirs:** D. Minisini (ExxonMobil) Speaker: Daniel Minisini
- 8:25 AM.....**Variable depositional styles of a carbonate-dominated toe of slope and basinal system: Early Leonardian (Wolfcamp A) of the Midland Basin:** A. Eljalafi<sup>2</sup>, R. Holman<sup>2</sup>, A. Bonilla-Rodriguez<sup>2</sup>, W. Walker<sup>1</sup>, B. Bryce<sup>2</sup> (1. University of Texas; 2. Oviniv) Speaker: Abdulah Eljalafi
- 8:50 AM.....**Integration of Petroleum Geochemistry with Gross Depositional Environment Mapping Across the Slope to Basin Transition in the Midland Basin:** D. Hull (Oviniv) Speaker: David Hull
- 9:15 AM.....**Pore systems in oil-window claystones and dolomudstones of lower Green River Formation (Castle Peak Shale through Lower Garden Gulch), Uinta Basin, Utah:** M. Pommer<sup>1</sup>, L. Fidler<sup>2</sup> (1. Stratascope Geologic; 2. SM Energy) Speaker: Maxwell Pommer

## DAS 5 Innovative Applications 2

Session Chairs: Joel Le Calvez and Zhishuai Zhang

Location: 371B

- 8:00 AM.....**Monitoring strain using downhole jewelry:** J. R. Voyles, I. Lim Chen Ning, D. Thornton, K. Davies (Chevron) Speaker: Jonathan Voyles
- 8:25 AM.....**Self-supervised Diffusion Model for Distributed Acoustic Sensing Data Denoising:** O. M. Saad, T. Alkhalifah (King Abdullah University of Science and Technology) Speaker: Omar M. Saad
- 8:50 AM.....**DAS VSP within Hybrid Coiled Tubing Intervention Program for Geothermal Exploration:** F. Stanek<sup>2</sup>, M. Gaeta<sup>1</sup>, G. Iervese<sup>1</sup>, A. Khayat<sup>2</sup> (1. Smape Srl; 2. Silixa) Speaker: Frantisek Stanek
- 9:15 AM.....**Quantitative Assessment of Parent Well Effect on Hydraulic Fracture Propagation at HFTS2: Insights from Cross-Well Strain Measurements and Microseismic Data:** P. Li<sup>1</sup>, G. Jin<sup>1</sup>, R. W. Hammack<sup>2</sup>, E. Zorn<sup>2</sup>, R. Gibson<sup>1</sup> (1. Colorado School of Mines; 2. National Energy Technology Laboratory) Speaker: Peiyao Li

## FWI 5 Elastic and Multiparameter

Session Chairs: Adriano Gomes Dos Santos and Yongzhong Wang

Location: 370A

- 8:00 AM.....**Unlocking rock properties using elastic multi-parameter FWI:** J. Badry, J. McLeman (DUG Technology) Speaker: James McLeman
- 8:25 AM.....**Moment tensor estimation by elastic FWI on 3-component data associated with icequakes detected on the Argentièrre glacier:** A. Grange<sup>1</sup>, R. Brossier<sup>1</sup>, F. Gimbert<sup>2</sup>, L. Métivier<sup>2</sup>, P. Roux<sup>2</sup> (1. Univ. Grenoble Alpes; 2. CNRS) Speaker: Arthur Grange
- 8:50 AM.....**Joint minimum entropy constraints in multi-parameter timelapse FWI of fibre-optic and geophone data:** A. Ziegion, K. Innanen (University of Calgary) Speaker: Anton Ziegion





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9:15 AM.....**Solving the imaging complexity via application of elastic FWI in the Nile Delta:** M. Romanenko<sup>1</sup>, V. Valler<sup>1</sup>, M. Hart<sup>1</sup>, J. Fruehn<sup>1</sup>, L. Saxton<sup>1</sup>, Q. Li<sup>2</sup>, I. De Lemos<sup>2</sup> (1. TGS; 2. BP)  
Speaker: Matvey Romanenko

### LAC 1 South American Equatorial Margin 2

*Session Chairs: Joniell Borges and David Lankford-Bravo*

**Location: 362B**

8:00 AM.....**Source rock interval mapping on the Brazilian Equatorial Margin using seismic, well and potential field data:** B. Lyra, E. Leaubon, M. Fry, D. Carruthers, M. Gatti, R. Amorim Juncken, A. Gordon, A. Lougon (Viridien) Speaker: Bruna Lyra

8:25 AM.....**Targeting Post-Rift Stratigraphic Traps in the Ceará and Potiguar Basins:** K. Reuber, P. Zalan, H. Houlléviq (TGS) Speaker: Kyle Reuber

8:50 AM.....**Extracting regional exploration attributes and insights over the Brazilian Equatorial Margin using multi-input machine learning 2D to 3D ultrasparse reconstruction:** F. Xavier De Melo, R. Ysaccis, C. Li, T. Zhao, J. Zhang, G. Zuluaga, A. Lewis, A. Zarkhidze (SLB) Speaker: Frederico Xavier De Melo

9:15 AM.....**Regional maturation model for hydrocarbons along the Guyana-Suriname margin based on improved estimates of the thickness and thermal structure of the rifted lithosphere:** K. Shipper, P. Mann (University of Houston) Speaker: Kenneth Shipper

### SMT 1 Forward Modeling: Wave Equation with Vector-Reflectivity and Beyond

*Session Chairs: Zongcai Feng and Shuang Gao*

**Location: 362C**

8:00 AM.....**First-order formulation of the Vector-Reflectivity Acoustic Wave Equation:** Á. S. Soares, M. D. Sacchi (University of Alberta) Speaker: Átila Soares

8:25 AM.....**Vector-reflectivity Elastic Wave Equation with First-order formulation:** Á. S. Soares, M. D. Sacchi (University of Alberta) Speaker: Átila Soares

8:50 AM.....**Vector reflectivity based isotropic elastic wave equation and its parameters sensitivity analysis:** J. Bai, O. Yilmaz, R. Levy, Z. Koren (AspenTech) Speaker: Jianyong Bai

9:15 AM.....**Efficient Seismic Wave Modeling in Complex Topography via Overset Virieux-Lebedev FDTD Scheme:** Z. Zhang<sup>1</sup>, P. Yong<sup>2</sup>, J. Huang<sup>1</sup> (1. China University of Petroleum (East China); 2. Chinese Academy of Sciences) Speaker: Zixiao Zhang

### SP 5 Denoise, and Demultiple

*Session Chairs: Milos Delic and Zhimei Yan*

**Location: 372B**

8:00 AM.....**Marchenko and interferometry based free-surface and internal multiple elimination:** A field data application: Z. Gu<sup>1</sup>, J. Geng<sup>1</sup>, R. Wu<sup>2</sup> (1. Tongji University; 2. University of California, Santa Cruz) Speaker: Zhiwei Gu

8:25 AM.....**Full-azimuth internal-multiple modeling and attenuation in a deep-water OBN setting:** T. d. Sales, F. Xavier De Melo, E. Saragoussi, J. Espinoza, D. Zarubov, D. Mondini, S. Trezzi (SLB) Speaker: Thais Sales

8:50 AM.....**Robust Tau-P denoise:** Z. Zhang (TGS) Speaker: Zhigang Zhang

9:15 AM.....**Robust 3D projection filtering with a generalized loss function:** A. Nair, M. D. Sacchi (University of Alberta)  
Speaker: Akash Nair

### SS 19 Best of EAGE 2025

*Session Chairs: Sandeep Chandola and Martin Widmaier*

**Location: 361B**

8:00 AM.....**4D PS-wave processing and imaging with trenced sensors at the Snorre field:** M. Gawron (Viridien) Speaker: Magdalena Gawron

8:25 AM.....**Orange and Pelotas Basins 3D Seismic Expression and Prospectivity of Turbiditic-Contouritic Depositional Systems:** K. Rodriguez (Searcher) Speaker: Karyna Rodriguez

8:50 AM.....**Exploring the Geothermal Recirculation Well Concept for Reusing Wells to be Abandoned:** I. I. Rodriguez (Vaulted Deep) Speaker: Inti Rodriguez

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

### SS 20 Geologic Hydrogen Exploration 1

*Session Chairs: Yaoguo Li and Mengli Zhang*

**Location: 371A**

8:00 AM.....**Geologic H<sub>2</sub> – Reducing the challenge to problem of chemistry:** D. Wicks (ARPA-E) Speaker: Douglas Wicks

8:25 AM.....**Predicting potential geologic hydrogen reservoir locations using MT and seismic data:** M. Zhang, B. Cherkose, Y. Li (Colorado School of Mines) Speaker: Mengli Zhang

8:50 AM.....**Petrobras' Journey into Natural Hydrogen (H<sub>2</sub>): From Curiosity to Research & Development:** A. A. Ferreira<sup>1</sup>, M. T. Romeiro<sup>2</sup>, R. P. Filho<sup>2</sup>, R. C. Silva<sup>2</sup>, T. O. Barreto<sup>2</sup>, A. A. da Silva<sup>2</sup>, D. J. Miller<sup>2</sup>, J. F. Sobreira<sup>2</sup>, Y. d. Rocha<sup>2</sup>, Y. M. Portella<sup>3</sup>, M. W. Vogado<sup>3</sup>, A. O. Gangá<sup>3</sup>, A. Svartman Dias<sup>3</sup>, F. P. Maia<sup>3</sup>, E. T. Morais<sup>3</sup>, M. F. Guimarães<sup>3</sup>, V. F. Rodrigues<sup>3</sup>, P. T. Menezes<sup>3</sup>, G. T. Silva<sup>3</sup>, M. S. Costa<sup>3</sup> (1. PETROBRAS; 2. Petrobras Research and Development Center (Cenpes); 3. Petrobras Exploration and Production (E&P)) Speaker: Alexandre Ferreira

9:15 AM.....**Unlocking new H<sub>2</sub> Potential sites in Mali: New Data and preliminary Studies from a Newly Discovered Well drilled and cemented since 1987:** O. Maiga (HNAT Consult & Engineering) Speaker: Omar Maiga

### SS 21 SEG/AGU Hydrogeophysics: Innovative Geophysical Approaches to Improve Understanding of Environmental Transformation

*Session Chairs: Efemena Emmanuel and Elnaz Pezeshki*

**Location: 372A**

8:00 AM.....**Developing innovative geophysical approaches to improve the understanding of soil-plant exchanges within the critical zone:** S. Ehosioko (UC Davis) Speaker: Solomon Ehosioko

8:25 AM.....**Geophysical Characterization of an Oil-Contaminated Spill Site: Subsurface Signals and Biogeochemical Interactions:** N. Filippone<sup>1</sup>, D. Ntarlagiannis<sup>2</sup>, E. Atekwana<sup>3</sup>, S. Roszbach<sup>4</sup>, M. Parsell<sup>4</sup>, L. Slater<sup>5</sup> (1. Near Surface Geophysics; 2. Rutgers University Newark; 3. University of California Davis; 4. Western Michigan University; 5. Rutgers University Newark & PNNL) Speaker: Nicolette Filippone

# Oral Sessions

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- 8:50 AM.....**Time-series clustering approaches for the characterization of critical zone hydrologic function across different geologic substrates:** E. Oladeji, A. Parsekian, P. Chen (University of Wyoming) Speaker: Emmanuel Oladeji
- 9:15 AM.....**Hydrogeophysical monitoring suggests that groundwater upwelling augments carbon ebullition in patterned pools of a northern peatland:** R. J. Hess, H. Moore, L. Slater (Rutgers University) Speaker: Raymond Hess

## STGM 5 Faults, Fractures, and Fluids 3

Session Chairs: Elizabeth Petrie and Lachlan Wright

Location: 362A

- 8:00 AM.....**3D Reflection Seismic Analysis of the Deep-Water Orange Basin: Structural Evolution and Hydrocarbon Potential:** N. Ngcobo<sup>1</sup>, M. Manzi<sup>1</sup>, Z. Jinnah<sup>1</sup>, J. Bourdeau<sup>2</sup> (1. University of the Witwatersrand; 2. Geological Survey of Canada) Speaker: Nombuso Ngcobo
- 8:25 AM.....**Validating Seismic Interpretations of Magma Rich Margins with Dynamic Models: Application to Pelotas and Namibia Basins:** M. C. Araujo<sup>1</sup>, M. T. Romeiro<sup>1</sup>, M. Pérez- Gussinyé<sup>2</sup>, J. García-Pintado<sup>2</sup> (1. Petrobras; 2. /MARUM-Center for Marine Environmental Sciences) Speaker: Mario Araujo
- 8:50 AM.....**Basement control on salt thickness, diapirism, and contractional deformation at the Louann level, NW Gulf of Mexico:** F. Rodriguez<sup>1</sup>, M. Rowan<sup>2</sup>, J. A. Muñoz de la Fuente<sup>1</sup> (1. Universitat de Barcelona; 2. Rowan Consulting Inc.) Speaker: Fernando Rodriguez
- 9:15 AM.....**Reassessment of the role of fault and stratigraphic sealing in The Brent Delta Norwegian North Sea:** T. Murray<sup>1</sup>, W. Power<sup>2</sup> (1. SHSGEO; 2. Power Geoscience Pty Ltd) Speaker: Titus Murray

## TL 1 Full-waveform Inversion and Analysis

Session Chairs: William Burnett and Jun Cao

Location: 360A

- 8:00 AM.....**Application of 4D FWI to the Usan 4D Streamer Surveys:** D. M. Davies<sup>1</sup>, C. Chung<sup>1</sup>, F. Gao<sup>1</sup>, I. Novianti<sup>1</sup>, r. otubusin<sup>1</sup>, F. Elebe<sup>3</sup>, A. S. Adegba<sup>2</sup>, A. olatunbosum<sup>2</sup>, I. MMamelu<sup>4</sup> (1. TGS; 2. Exxonmobil; 3. Bulwark Services; 4. NNPC) Speaker: Daniel Davies
- 8:25 AM.....**Time-lapse Q full waveform inversion for CO<sub>2</sub>-induced attenuation estimation:** Q. Mao, Y. Shen (China University of Petroleum (East China)) Speaker: Qiang Mao
- 8:50 AM.....**Estimation of time-lapse velocity change by multi-parameter elastic FWI:** X. Shang, Y. Liu, J. Liu, J. Grimm, R. Plessix, K. Wang (Shell) Speaker: Xuefeng Shang
- 9:15 AM.....**Time-lapse full-waveform inversion with uncertainty quantification:** Z. Deng, R. Orozco, A. Gahlot, F. J. Herrmann (Georgia Institute of Technology) Speaker: Zijun Deng

## AAS 4 Anisotropy and Uncertainty

Session Chairs: Dwaipayan Chakraborty and Norbert Van De Coevering

Location: 372C

- 10:20 AM....**Deviated well sonic logs, anisotropy and AVA:** S. Leaney<sup>1</sup>, B. E. Hornby<sup>2</sup> (1. Qeye; 2. Hornby Geophysical Services, LLC) Speaker: Scott Leaney
- 10:45 AM....**Seismic depth uncertainty quantification using anisotropic parametrization and adaptive Markov chain Monte Carlo**

**sampling:** S. Hu<sup>1</sup>, E. Kazlauskas<sup>2</sup>, P. Jilek<sup>2</sup>, J. Zhang<sup>2</sup>, G. Xia<sup>2</sup> (1. University of Texas at Austin; 2. bp) Speaker: Shuhua Hu

- 11:10 AM ...**A prestack multitrace inversion method constrained by geometric attributes for anisotropic parameters:** Z. Wang, X. Yin, Y. m. Yang, Z. Ma (China University of Petroleum (East China)) Speaker: Zhan Wang
- 11:35 AM ...**Fluid identification in VTI media based on a modified reflection coefficient approximation:** W. Xiang, X. Yin, K. Li, Z. Ma, H. Tan (China University of Petroleum (East China)) Speaker: Wei Xiang

## AFR 2 African Integrated Geosciences

Session Chairs: Melissa Beaman and Kelly Poret

Location: 361A

- 10:20 AM....**Mixed depositional systems along the eastern margin of South Africa:** R. Africa, A. Fielies (Petroleum Agency SA) Speaker: Reagan Africa
- 10:45 AM....**Sedimentological and Depositional Framework of the Distal Orange Basin: Interaction of MTC and turbidites in Upper Cretaceous:** L. Gicquel (TotalEnergies) Speaker: Loeiza Gicquel
- 11:10 AM ...**Benefits of depth imaging in "time imaging prone" environments: Orange Basin case study:** B. Duquet, S. Whitehead, M. Appé, P. Charron, R. Dartigalongue, C. Fleury, T. Lassaigne, M. Lombardi, J. Montel, G. Maman-Koumba, A. Riou, D. Sun, F. Piriatic (TotalEnergies) Speaker: Samuel Whitehead
- 11:35 AM ...**Atlas and statistical overview of faults in the Niger Delta Basin, Nigeria:** W. Nureni<sup>1</sup>, O. Kobiowu<sup>1</sup>, P. Uzoma<sup>1</sup>, L. Abidoye<sup>1</sup>, T. Murray<sup>2</sup>, P. Macaulay<sup>1</sup> (1. Harvex Geosolutions; 2. SHSGEO) Speaker: Titus Murray

## BM 2 Geological Controls

Session Chairs: Luke Francis and Sumit Mekherjee

Location: 351A

- 10:20 AM....**Hydrodynamic Modeling of a Late Jurassic Intrashelf Basin: Insights for Vertical and Lateral Source Rock Heterogeneity:** A. N. Wicaksono<sup>1</sup>, G. Gairola<sup>1</sup>, D. Guo<sup>1</sup>, P. Zhan<sup>2</sup>, I. Hoteit<sup>1</sup>, V. Vahrenkamp<sup>1</sup> (1. Earth System Science and Engineering, Division of Physical Sciences and Engineering, King Abdullah University of Science and Technology; 2. Southern University of Science and Technology) Speaker: Akbar Wicaksono
- 10:45 AM....**Full field structural framework provides insight into well planning in the Mars basin via data integration:** S. M. Brown (Shell E&P Co.) Speaker: Steven Brown
- 11:10 AM ...**Use of 3D flexural backstripping to quantify subsidence, paleobathymetry, and paleogeometry of regional basins:** I. S. Loutfi<sup>1</sup>, J. Guigon<sup>2</sup>, H. Bruno<sup>2</sup>, J. Araujo<sup>1</sup>, M. C. Araujo<sup>3</sup> (1. Petrobras; 2. Federal University of Rio de Janeiro; 3. Petrobras S.A. (Non-Author)) Speaker: Mario Araujo
- 11:35 AM ...**Discussion**

## CAEV 6 Advancements in Carbonates

Session Chairs: Kelly Hattori and Christoph Lehmann

Location: 351B

- 10:20 AM....**Outcrop-based, high-resolution stratigraphy of the Silurian-Devonian Fusselman Formation, Permian Basin**



## Wednesday, 27 August

**region:** A. Roark (Chevron Americas E&P) **Speaker:** Andrew Roark

10:45 AM... **Compositional and structural controls on reservoir heterogeneity in carbonate formations: Insights from 3D seismic, elemental spectroscopy, and borehole image analysis:** E. Petersohn<sup>1</sup>, T. Mukerji<sup>1</sup>, C. Cavalcante<sup>2</sup>, H. Fossen<sup>2</sup> (1. Stanford University; 2. University of Bergen) **Speaker:** Eliane Petersohn

11:10 AM... **Application of random forest regression for predicting heterogeneous fracture-cave carbonate reservoirs:** H. Wang<sup>2</sup>, L. Zhou<sup>3</sup>, L. Zhao<sup>1</sup>, J. Wang<sup>1</sup>, Q. Chen<sup>4</sup>, B. Liu<sup>4</sup> (1. RIPED, CNPC; 2. Southwest Petroleum University, RIPED; 3. Southwest Petroleum University; 4. NWGI, RIPED, CNPC) **Speaker:** Hongqiu Wang

11:35 AM... **Quantitative Bathymetry Reconstruction of the Late Jurassic Arabian Intraself Basin:** A. N. Wicaksono, V. Vahrenkamp (King Abdullah University of Science and Technology (KAUST)) **Speaker:** Akbar Wicaksono

### DMLA 3 Automation and Digitalization

*Session Chairs: Pandu Devarakota and Xuqing Wu*

**Location: 372A**

10:20 AM... **Leveraging LLMs for scalable seismic metadata extraction from unstructured SEG-Y text headers:** E. Tian, A. Sansal, A. Valenciano, B. G. Lassoock, S. Rajendran (TGS) **Speaker:** Edward Tian

10:45 AM... **MDIO v1: Schematizing seismic data for AI and processing:** B. Michell, A. Sansal, B. G. Lassoock, M. Roberts (TGS) **Speaker:** Brian Michell

11:10 AM... **Rock classification using conventional and multispectral drone imagery together with machine learning:** D. Crisafulli, M. M. Morales, C. Neal, T. Larson, C. Torres-Verdin (The University of Texas at Austin) **Speaker:** Domenico Maria Crisafulli

11:35 AM... **Decision transformers: Enhancing the performance of geophysical control for geological carbon storage:** K. Noh, A. Swidinsky (University of Toronto) **Speaker:** Kyubo Noh

### FWI 6 Case Studies from the Gulf of America

*Session Chairs: Aravind Nangarla and Xiaolei Song*

**Location: 370A**

10:20 AM... **Tackling subsalt complexity with elastic FWI using long-offset, low-frequency sparse OBN data:** B. Wray, D. S. Dangwal, Z. Wang, X. Zhang, D. Liu, M. Graham, H. Zhu (Viridien) **Speaker:** Brad Wray

10:45 AM... **Well log-derived empirical Vp-Vs relationship for elastic full-waveform inversion in northern Gulf of America:** H. Li, L. Xie, B. Bai, Y. Yu (SLB) **Speaker:** Hongyan Li

11:10 AM... **Unlocking extra value from vintage WAZ data using EFWI and ERTM: A subsalt imaging case study in the GOA:** B. Deng<sup>1</sup>, K. Kanakamedala<sup>1</sup>, F. Gao<sup>1</sup>, J. Mei<sup>1</sup>, J. Blanch<sup>2</sup>, M. Cahoj<sup>2</sup>, H. Vescogni<sup>2</sup> (1. Viridien; 2. Woodside Energy) **Speaker:** Joakim Blanch

11:35 AM... **Advanced imaging technologies reveal new insights in the mature Neptune field:** L. Sang<sup>1</sup>, C. Yin<sup>1</sup>, J. M. Guynes<sup>1</sup>, M. R. Etienne<sup>1</sup>, Y. Chang<sup>2</sup>, N. Fiptiani<sup>2</sup>, H. Gao<sup>3</sup>, S. Strauss<sup>3</sup>, C. Chen<sup>3</sup>, Z. Wei<sup>3</sup> (1. Talos Energy; 2. Repsol Exploration and Production; 3. Viridien) **Speaker:** Liqin Sang

### LAC 2 South Atlantic Offshore 2

*Session Chairs: Christine Piela and Muni Zulkifli*

**Location: 362B**

10:20 AM... **Crustal structure and predictive hydrocarbon modeling of Early Cretaceous source rocks in upper slope and deepwater settings of Uruguay:** D. S. Maya Ortiz, P. Mann (University of Houston) **Speaker:** Daniel Maya Ortiz

10:45 AM... **Appraisal while developing - Payara field, offshore Guyana: Derisking secondary resources via development drilling and early flowback to accelerate reservoir production:** J. A. Violet, M. Q. Do, R. Ruppert (ExxonMobil) **Speaker:** Jacob Violet

11:10 AM... **3D basin modeling of the Santos-Campos-Espirito Santo combined salt basin using geochemical well data for source rock characterization:** S. Cornelius (University of Houston) **Speaker:** Sharon Cornelius

11:35 AM... **Structural evolution of the Brazilian rifted passive margin in Campos basin: Timing and kinematic relationships of the rift system and salt tectonics:** R. Beltran<sup>1</sup>, P. Mann<sup>1</sup>, A. R. Mora<sup>2</sup> (1. University of Houston; 2. ECOPEPETROL S.A.) **Speaker:** Ruth Beltran

### PANEL 2 New Energies and Energy Transition: CCS Economics, Environmental Aspects, and Regulatory Frameworks

*Moderator: Lorraine Chambon*

**Location: 362A**

Panelists: Wadii El Karkouri (TGS), Ben Grove (Clean Air Task Force), Sarah Forbes (United States Department of Energy), Jennifer L Wilding (Chevron), Sandeep K. Chandola (PETRONAS)

### SP 6 Deblending

*Session Chairs: Arash Jafargandomi and Abhishek Raj*

**Location: 372B**

10:20 AM... **Deblending 3D NAZ data in high sea surface current environments:** C. Udengaard, L. Alexander, L. Gabioli, S. Cochran, M. Cvetkovic, D. Unger (TGS) **Speaker:** Carsten Udengaard

10:45 AM... **The accuracy of deblending low-frequency signals:** R. L. Abma (University of Texas at Austin) **Speaker:** Raymond Abma

11:10 AM... **Deblending of long-offset, low-frequency sparse OBN data under multiple types of interference:** N. Zhao, X. Zhang, Z. Wang, B. Wray, A. Hao, H. Zhu (Viridien) **Speaker:** Xue Zhang

11:35 AM... **Self-supervised Training for Simultaneous Interpolation and Deblending of Blended Data:** L. Zifei, S. Zu, W. Shen, J. Kang, J. Wang (Chengdu University of Technology) **Speaker:** Li Zifei

### SS 22 2024 SEG 4D Forum: From 4D Acquisition to Seismic History Matching

*Session Chairs: Mariana Gherasim and David Johnston*

**Location: 360A**

10:20 AM... **Monitoring pre-salt reservoirs with hybrid acquisitions and 4D FWI:** G. Brando, F. Rodrigues, D. Albuquerque, D. Froes, B. Huard, L. Cypriano, R. Pereira, A. Khalil (Viridien) **Speaker:** Gabriel Brando

10:45 AM... **4D FWI – evolution of learnings from a 4D OBN application:** D. M. Davies<sup>1</sup>, D. Cavalin<sup>1</sup>, F. Gao<sup>1</sup>, L. Saxton<sup>1</sup>, M. Romanenko<sup>1</sup>,



# Oral Sessions

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E. Cho<sup>1</sup>, P. Tillotson<sup>2</sup>, L. Wang<sup>2</sup> (1. TGS; 2. bp) Speaker: Daniel Davies

11:10 AM ...**WAG'ing the dog: Engineered signals to calibrate 4D expectations at Liza, Offshore Guyana:** K. A. Wagenvelt<sup>1</sup>, D. Byrapatna<sup>2</sup>, P. Singh<sup>1</sup>, M. Stone<sup>1</sup>, C. Fasulo<sup>1</sup>, T. Hidayah<sup>1</sup>, R. Wachtman<sup>1</sup>, T. Ames<sup>1</sup>, W. Burnett<sup>1</sup>, S. Ou<sup>1</sup>, C. Tapie<sup>1</sup>, M. Helgerud<sup>1</sup>, D. Chu<sup>1</sup>, M. Sengupta<sup>1</sup> (1. ExxonMobil; 2. Carnegie Mellon University) Speaker: Kirk Wagenvelt

11:35 AM ...**An integrated workflow for history matching production and 4D seismic data – Field case application to a deepwater oil reservoir:** T. Yeh, S. Bakku, Y. Hwang (Shell) Speaker: Tzu-hao Yeh

## SS 23 Cryogeophysics: Near-Surface Geophysical Tools to Elucidate the Cryosphere – CANCELLED

## SS 24 Black Shales to Brines: Unconventional Sources for Critical Elements in the Energy Transition

Session Chairs: Ashley Douds and Susan Nash

Location: 362C

- 10:20 AM ...**Black Shales as Unconventional Resources for Critical Elements: A Geochemical Perspective:** S. Sahoo<sup>1</sup>, A. Zumberge<sup>2</sup>, A. Chappaz<sup>3</sup>, G. Gilleaudeau<sup>4</sup>, G. Spence<sup>2</sup>, J. M. Bloxson<sup>5</sup>, K. Henderson<sup>6</sup>, N. Das<sup>7</sup>, S. Bhattacharya<sup>8</sup> (1. SHRI; 2. GeoMark; 3. Central Michigan University; 4. George Mason University; 5. Stephen F. Austin State University; 6. McGill University; 7. LithoAyas; 8. GSI Environmental Inc) Speaker: Swapan Sahoo
- 10:45 AM ...**Exploration and extraction of iodine from produced waters in the Anadarko Basin:** A. Gordon (Iofina) Speaker: Andrew Gordon
- 11:10 AM ...**The New Oil: Liquid Mining and Direct Lithium Extraction from Produced Water:** H. D. Lebit (Alma Energy) Speaker: Hermann Lebit
- 11:35 AM ...**Lessons learned from applying Ensemble Tree Machine Learning to the mapping of lithium and other constituents in groundwater:** K. Knierim, K. Belitz, P. Stackelberg (U.S. Geological Survey) Speaker: Katherine Knierim

## SS 25 Geologic Hydrogen Exploration 2

Session Chairs: Travis McLing and Mengli Zhang

Location: 371A

- 10:20 AM ...**Geochemical exploration techniques to quantify hydrogen generation potential in complex geologic terranes:** T. Larson, E. Ukar, O. Gelencser, T. Zhang, A. Fall (University of Texas at Austin) Speaker: Toti Larson
- 10:45 AM ...**Crosswell Electromagnetic Method for Monitoring Serpentinization During Geological Hydrogen Production:** E. Um<sup>1</sup>, D. Alumbaugh<sup>1</sup>, M. Zhang<sup>2</sup>, J. Capriotti<sup>2</sup>, N. Perkovich<sup>2</sup>, Y. Li<sup>2</sup> (1. Lawrence Berkeley National Laboratory; 2. Colorado School of Mines) Speaker: Evan Um
- 11:10 AM ...**Insights into iron-rich ultramafic rock properties and serpentinization-driven hydrogen generation potential:** N. Yuan, R. Czarnota, H. Rahnema (New Mexico Institute of Mining and Technology) Speaker: Robert Czarnota
- 11:35 AM ...**Quantitative analysis and rock physics relations for natural hydrogen prospecting:** Y. Mathur, T. Mukerji (Stanford University) Speaker: Yashee Mathur

## SS 26 Road Ahead to Quantum Computing in Geosciences

Session Chairs: Tapan Mukerji and Mrinal Sen

Location: 371B

- 10:20 AM ...**The future of quantum computing for geophysical inversion:** D. Vashisth<sup>1</sup>, R. Lessard<sup>2</sup>, R. Sharma<sup>3</sup>, T. Mukerji<sup>1</sup>, M. Sen<sup>4</sup> (1. Stanford University; 2. SLB; 3. Indian Institute of Technology (Indian School of Mines) Dhanbad; 4. The University of Texas at Austin) Speaker: Divakar Vashisth
- 10:45 AM ...**Beyond Classical Simulations: Quantum Approaches to Fluid Flow in Geophysical Systems:** P. Tahmasebi (Colorado School of Mines) Speaker: Pejman Tahmasebi
- 11:10 AM ...**Efficient quantum algorithms for flow in geologic fracture networks via block encoding:** D. O'Malley, J. Golden (Los Alamos National Laboratory) Speaker: Daniel O'Malley
- 11:35 AM ...**Crosswell traveltime inversion using a quantum computing method:** H. Nguyen, A. Tura (Colorado School of Mines) Speaker: Hoang Anh Nguyen

## AAS 5 Machine Learning 1

Session Chairs: Samik Sil and Dileep Tiwary

Location: 372C

- 1:20 PM ...**Automated QI Workflow for Seismic Interpretation: Integrating Automated Depth Calibration, DNN-Based Wavelet Estimation, and End-to-End Seismic Inversion:** U. Lim, C. Hagbo (Chevron U.S.A. Inc.) Speaker: Un Young Lim
- 1:45 PM ...**Enhanced Prediction of Total Organic Carbon in Shale Gas Reservoirs using Extended Feature Variables and Random Forests:** J. Gao, J. Gui, S. Li, H. Li, X. Guo (Research Institute of Petroleum Exploration & Development-Northwest (NWGI), PetroChina) Speaker: Jianhu Gao
- 2:10 PM ...**High-precision facies-controlled modeling method and application based on intelligent well-seismic transfer learning:** X. Wang, M. Jia, A. Wang, G. Zhao, C. Ma, C. Zhang (BGP, CNPC) Speaker: Xi Wang
- 2:35 PM ...**Enhancing AVA Inversion Accuracy through Deep Neural Network Bootstrapping (BootNet): A Novel Approach for Quantifying Data Uncertainty:** U. Lim, R. Cardona (Chevron U.S.A. Inc.) Speaker: Un Young Lim

## ACQ 1 Marine Ocean Bottom Nodes 2

Session Chairs: Dalila Cherief and Carsten Udengaard

Location: 361B

- 1:20 PM ...**"Drop & Pop" 3C submersed floating OBN for cost-effective marine seismic acquisition:** D. Lecerf, E. Nielsen (TGS) Speaker: Didier Lecerf
- 1:45 PM ...**The On-demand OBN (OD OBN) development through comprehensive bench and field testing:** J. L. Lopez<sup>1</sup>, S. Grandi<sup>2</sup>, V. E. Beal<sup>3</sup>, G. Mangano<sup>4</sup>, F. de Oliveira<sup>3</sup>, A. dos Santos<sup>3</sup>, G. de Almeida<sup>3</sup>, B. Barbosa<sup>3</sup>, F. Lima Santos<sup>4</sup>, D. Gjini<sup>4</sup>, E. Alexandre<sup>5</sup>, T. Miranda<sup>4</sup>, A. A. da Silva<sup>6</sup>, B. Radefeld<sup>6</sup>, R. Braganca<sup>6</sup>, S. Dunn<sup>4</sup> (1. Shell Brasil Petroleo Ltda; 2. Shell International Exploration & Production; 3. SENAI CIMATEC; 4. Sonardyne; 5. Sonardyne Brasil Ltda.; 6. Petrobras) Speaker: Jorge Lopez
- 2:10 PM ...**Breaking the Subsalt Image Resolution Barrier: Insights from an Ultra-High Density Deepwater Ocean Bottom Nodes Experiment in Thunder Horse, GoA:** G. Xia, J. Etgen, Z. Li (bp) Speaker: Ganyuan Xia





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2:35 PM.....**Ocean bottom nodes survey in the Tupi field: Design, operation and results:** J. Borba, M. P. De Almeida Junior, D. Santos, H. Teixeira, D. Dos Santos Marques, M. S. Costa, J. M. Nunes Cruz, F. Apolonio (Petrobras) Speaker: Jose Borba

### DMLA 4 Generative and Foundation Models 2

*Session Chairs: Felix Herrmann and Jie Qi*

**Location: 372A**

1:20 PM.....**Continuous vs. categorical encodings: Channel orientation-aware self-attention conditional generative adversarial networks:** A. Merzoug, M. Pyrcz (University of Texas at Austin) Speaker: Ahmed Merzoug

1:45 PM.....**Well2Flow: Reconstruction of reservoir states from sparse wells using score-based generative models:** S. Zeng, H. Li, A. Gahlot, F. J. Herrmann (Georgia Institute of Technology) Speaker: Shiqin Zeng

2:10 PM.....**Subsurface Facies Modeling with Computational Stratigraphy (CompStrat) and Hierarchical Generative Adversarial Networks (GAN):** E. Maldonado Cruz, T. Sun, L. Li, J. De La Colina (Chevron) Speaker: Eduardo Maldonado Cruz

2:35 PM.....**Meta-Continual Learning Framework for Seismic Characterization: Advancing Specialized Models Beyond Pre-training:** S. Sinan<sup>1</sup>, R. Harsuko<sup>2</sup> (1. Saudi Aramco; 2. King Abdullah University of Science and Technology) Speaker: Salma Sinan

### EMME 1 Exploration and Development: Middle East and Europe

*Session Chairs: Karelia La Marca and Christoph Lehmann*

**Location: 351B**

1:20 PM.....**War and energy: The battle to keep gas flowing in Ukraine**  
**Keynote:** M. Vityk (Ukrasvydobuvannya JSC, Naftogaz Group) Speaker: Maxim Vityk

1:45 PM.....**Tectonics and Sedimentation in the Rioni Basin, Offshore Georgia, Eastern Black Sea:** D. Mitra<sup>1</sup>, I. Cemen<sup>1</sup>, R. Spiller<sup>2</sup> (1. The University of Alabama at Tuscaloosa; 2. Azimuth Energy and Minerals LLC) Speaker: Dipanjan Mitra

2:10 PM.....**Salt-involved rift tectonics in the northern Egyptian Red Sea: Implications for exploration:** M. Rowan<sup>1</sup>, R. Benbella Nafea<sup>2</sup>, A. Abdel Aal<sup>2</sup>, V. Robertson<sup>2</sup>, M. El-Toukhy<sup>2</sup> (1. Rowan Consulting Inc.; 2. SLB) Speaker: Mark Rowan

2:35 PM.....**Structural controls and reservoir character of syn-rift carbonate rimmed platforms: Saudi Arabian Red Sea Rift margin:** R. E. Collier, M. Alsafri, P. Glover (University of Leeds) Speaker: Richard Collier

### FWI 7 Case Studies 3

*Session Chairs: Anu Chandran and Gilles Lambaré*

**Location: 370A**

1:20 PM.....**Building a velocity model in a frontier exploration area of the Red Sea using elastic full-waveform inversion and potential field data:** W. Ibanez Jacome, K. Detoro, K. Palkowsky, J. Zhang, V. Robertson, K. Glaccum, F. Ceci, G. Bancala, L. De Luca, A. Sirtori (SLB) Speaker: Wilson Ibanez Jacome

1:45 PM.....**Assessing CO<sub>2</sub> sequestration monitoring using 4D frequency-domain VSP-FWI: A synthetic study configured for the Snowflake dataset:** J. Li, K. A. Pike, K. Hall, K. Innanen (University of Calgary) Speaker: Jinji Li

2:10 PM.....**Multi-parameter FWI for structural imaging, amplitude fidelity and reservoir properties:** Ø. Korsmo<sup>1</sup>, S. Crawley<sup>1</sup>, N. Chemingui<sup>1</sup>, D. Whitmore<sup>1</sup>, J. Brittan<sup>2</sup> (1. TGS; 2. TGS (Non-Author)) Speaker: John Brittan

2:35 PM.....**Reviving four-decade-old 2D land seismic data for onshore exploration in Middle East with latest seismic processing technologies:** K. Guo<sup>1</sup>, T. Cheng<sup>1</sup>, X. Feng<sup>1</sup>, S. Jiang<sup>2</sup>, H. Zhao<sup>1</sup>, L. Zhuping<sup>1</sup> (1. CNOOC International Limited; 2. BGP Inc., CNPC) Speaker: Liu Zhuping

### GM 1 Inversion and Artificial Intelligence in Potential Fields

*Session Chairs: Noah Perkovich and Antony Price*

**Location: 371A**

1:20 PM.....**ResDM-Net++: An Enhanced Diffusion Model for Gravity Inversion:** M. Xian<sup>1</sup>, Z. Xu<sup>1</sup>, Y. Zhang<sup>1</sup>, X. Wang<sup>1</sup>, M. Zhdanov<sup>2</sup> (1. Chengdu University of Technology; 2. University of Utah) Speaker: Minghao Xian

1:45 PM.....**Geophysical Control of Water-Alternating-Gas Operations for Carbon Storage using Deep Reinforcement Learning:** E. Fosu-Duah<sup>1</sup>, K. Noh<sup>1</sup>, L. Zepa<sup>2</sup>, A. Swidinsky<sup>1</sup> (1. University of Toronto; 2. Colorado School of Mines) Speaker: EvelynLove Fosu-Duah

2:10 PM.....**Improving spatial resolution of GRACE-derived terrestrial water storage anomalies in the Tibetan Plateau using deep learning:** J. Chen<sup>1</sup>, L. Wang<sup>1</sup>, C. Chen<sup>1</sup>, J. Sun<sup>2</sup> (1. China University of Geosciences (Wuhan); 2. University of Houston) Speaker: Jun Chen

2:35 PM.....**Insights into the effect of upward continuation heights on the susceptibility modeling of near-surface infrastructures from regional magnetic data: A case of Stockholm's underground metro:** E. D. Alofe<sup>1</sup>, M. Bastani<sup>2</sup>, A. Tryggvason<sup>1</sup> (1. Uppsala University; 2. Geological Survey of Sweden) Speaker: Emmanuel Alofe

### LAC 3 Frontier Basins 2

*Session Chairs: Chris Bexfield and Maria Madariaga*

**Location: 362B**

1:20 PM.....**Can Foz do Amazonas Basin follow the greatness of oil discovery pathways of Santos Pre-salt carbonates and Guyana Cretaceous Turbidity Supergiant provinces in the South Atlantic Realm?:** M. R. Mello<sup>1</sup>, W. Peres<sup>1</sup>, C. Beisl<sup>1</sup>, L. Gamboa<sup>2</sup>, C. Silva<sup>2</sup>, J. Dahl<sup>3</sup>, J. M. Moldowan<sup>3</sup> (1. Brazilpetro studies; 2. UFF-LAGEMAR; 3. Biomarker Technologies) Speaker: Marcio Mello

1:45 PM.....**Integrated Geological Modeling of the Sirius Discovery, Offshore Colombia:** F. A. Lozano<sup>2</sup>, C. J. Sanchez<sup>2</sup>, J. Rodriguez<sup>2</sup>, A. Penna<sup>1</sup>, A. Velandia<sup>2</sup>, J. Buenaventura<sup>2</sup>, C. Arguello<sup>2</sup> (1. Ecopetrol; 2. Ecopetrol) Speaker: Felipe Lozano

2:10 PM.....**Examining the exploration potential of the Equatorial Margin: Reviewing the Brazilian and African conjugate:** C. Gravestock, C. Bradley, R. James (Halliburton) Speaker: Christopher Gravestock

2:35 PM.....**AVO analysis revealing opportunities in new seismic surveys – Foz do Amazonas, Brazil:** E. Leaubon<sup>1</sup>, B. Lyra<sup>1</sup>, R. Amorim Juncken<sup>1</sup>, M. Fry<sup>1</sup>, A. Gordon<sup>1</sup>, M. Gatti<sup>1</sup>, A. Lougon<sup>1</sup>, C. Saudino<sup>2</sup> (1. Viridien; 2. Eliis) Speaker: Eduardo Leaubon

# Oral Sessions

Wednesday, 27 August

## NS 1 Advances in Near Surface Seismic Applications

Session Chairs: Sherif Hanafy and Julian Ivanov

Location: 361A

- 1:20 PM.....**3D beamforming for surface wave dispersion analysis and inversion in complex land seismic data:** I. Sanchez<sup>1</sup>, D. Trad<sup>1</sup>, W. Agudelo<sup>2</sup> (1. University of Calgary; 2. Ecopetrol) Speaker: Ivan Sanchez
- 1:45 PM.....**Wellbore-supervised learning for 3D seismic velocity model building:** D. Colombo, E. Turkoglu, E. Sandoval Curiel, H. Alqatari, T. Y. Alyousuf (Saudi Aramco) Speaker: Daniele Colombo
- 2:10 PM.....**A comparative analysis of multiple seismic methods for blind near-surface data in a sandy environment:** D. Borisov<sup>1</sup>, Y. Zhang<sup>1</sup>, J. Ivanov<sup>1</sup>, S. L. Peterie<sup>1</sup>, A. Hoch<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 Engineer Research & Development Center) Speaker: Dmitry Borisov
- 2:35 PM.....**Monitoring structural health of wind turbine using ambient seismic noise:** S. Mukherjee, Y. Li (Purdue University) Speaker: Sayan Mukherjee

## RC 1 Geomodelling

Session Chairs: Henry Campos and Carla Carvajal

Location: 362C

- 1:20 PM.....**Multi-Scale Fracture Prediction Based on Digital Outcrops with Deep Learning Method:** Z. Liu, Q. Zhao, J. Wu, W. Lin (PetroChina Research Institute of Petroleum Exploration and Development) Speaker: Zhaolong Liu
- 1:45 PM.....**Enhanced GANSim for geomodelling of multi-scenario non-stationary reservoirs:** S. Song<sup>1</sup>, T. Mukerji<sup>1</sup>, C. Scheidt<sup>1</sup>, H. Alqassab<sup>2</sup>, M. Feng<sup>2</sup> (1. Stanford University; 2. ExxonMobil) Speaker: Suihong Song
- 2:10 PM.....**3D Facies Modelling Workflow of a Barrier Island Environment:** A Multi-Point Statistics Approach with Unconformity Uncertainty Handling: A. Palencia (HOCOL E&P) Speaker: Alejandro Palencia
- 2:35 PM.....**Integrated subsurface workflow for fast and reliable production forecasting:** M. Amaru<sup>1</sup>, S. Vitel<sup>1</sup>, A. Rey<sup>1</sup>, P. Muron<sup>1</sup>, A. Parrish<sup>1</sup>, Y. Wang<sup>1</sup>, A. Erendi<sup>1</sup>, J. Amiotte<sup>1</sup>, B. Zouari<sup>2</sup>, K. Monastirev<sup>2</sup>, B. Baddeley<sup>2</sup>, M. Wakefield<sup>2</sup> (1. Chevron; 2. SLB) Speaker: Maisha Amaru

## RP 1 Honoring Amos Nur

Session Chairs: Ronny Hofmann and Teng Long

Location: 371B

- 1:20 PM.....**Understanding Brown and Korringa (1975):** L. Thomsen (University of Houston) Speaker: Leon Thomsen
- 1:45 PM.....**On the utility of the shear modulus in rock physics model development: Robust workflows for compressible high porosity siliciclastic reservoirs:** M. Kittridge, A. Maldonado (Oxy) Speaker: Mark Kittridge
- 2:10 PM.....**In-situ observation of the complex physics behind earthquake interaction with a shallow segment of the San Andreas Fault:** S. Glubokovskikh, B. Lyu, M. Robertson, A. Nayak, C. Ulrich, P. Cook, Y. Tanaka, Y. Guglielmi (Lawrence Berkeley National Laboratory) Speaker: Stanislav Glubokovskikh

- 2:35 PM.....**Effect of viscosity on wave propagation: Poroelasticity versus viscoelasticity:** B. Gurevich<sup>1</sup>, S. Glubokovskikh<sup>2</sup> (1. Curtin University; 2. LBNL (Non-Author)) Speaker: Stanislav Glubokovskikh

## SILIC 1 Deepwater Sedimentary Systems

Session Chairs: Neal Auchter and Philomena Gan

Location: 351A

- 1:20 PM.....**Supercritical flow structures in a Cretaceous submarine channel-lobe transition zone, Point Loma Formation, California:** L. Saifudin, Z. Jobe, P. Plink-Bjorklund, A. Sloomman (Colorado School of Mines) Speaker: Zane Jobe
- 1:45 PM.....**First ever 3D seismic insights into the southern Brazil Pelotas Basin deep water petroleum systems:** K. Rodriguez, N. Hodgson (Searcher Seismic) Speaker: Karyna Rodriguez
- 2:10 PM.....**Analog-based Reservoir Quality Prediction of Cretaceous to Miocene Sandstones in the GoA:** Impact of Provenance, Burial, Thermal Anomalies, and Depositional Facies: A. Ozkan (Shell) Speaker: Aysen Ozkan
- 2:35 PM.....**Inception and Maintenance of Submarine Channels formed by Turbidity Currents:** A. Wahab<sup>1</sup>, M. Shringarpure<sup>1</sup>, K. Straub<sup>2</sup> (1. ExxonMobil; 2. Tulane University) Speaker: Abdul Wahab

## SP 7 Imaging Signal Enhancement

Session Chairs: Sriram Arasanipalai and Daniel Rocha

Location: 372B

- 1:20 PM.....**Joint low-rank-based near-surface correction and reconstruction of land data:** A. M. Alfara<sup>1</sup>, E. Verschuur<sup>2</sup> (1. Saudi Aramco; 2. Delft University of Technology) Speaker: Ali Alfara
- 1:45 PM.....**Seismic Scaling Corrections Using Dual Patch Eigenimage Filters:** J. Gallop (Ikon Science) Speaker: Jeremy Gallop
- 2:10 PM.....**AI-driven post-stack seismic quality enhancement and its impact on interpretability and prospect evaluation of deep horizons in brownfield:** T. Eliva<sup>1</sup>, O. Mammadov<sup>1</sup>, H. Asgarov<sup>1</sup>, R. Malikov<sup>1</sup>, I. Shahsenov<sup>1</sup>, N. Kuramshina<sup>2</sup>, K. Aliyev<sup>2</sup> (1. WAVERITY; 2. GL) Speaker: Kenan Aliyev
- 2:35 PM.....**Improving Permian Basin imaging with PSDM residual trim statics:** T. Li, R. Holt (Oxy) Speaker: Tianjiang Li

## SS 27 Discovery Thinking: Integrating Geology and Geophysics: DHI Reveals Major Subsurface Discoveries 1

Session Chairs: Charles Sternbach and Mike Forrest

Location: 360A

- 1:20 PM.....**From Moosehead to Mopane: Access to high quality data as a key driver for successful DHI led exploration in Namibia:** T. Martins, D. A. Rodrigues, R. Muggli, F. Silva, J. R. Rocha, B. Pina (Galp) Speaker: Teresa Martins
- 2:10 PM.....**Sirius Gas Discovery - Geological Setting and Caribbean Offshore Exploration Historical Perspective:** A. Velasquez<sup>1</sup>, H. Nino<sup>1</sup>, E. Jaimes<sup>1</sup>, L. Figuera<sup>1</sup>, M. V. Galvão<sup>2</sup>, C. Kazzuo<sup>2</sup>, J. Mosquera<sup>2</sup> (1. Ecopetrol S.A.; 2. Petrobras) Speaker: Antonio Jose Velasquez
- 2:35 PM.....**Colombia and Sirius Discovery: Unveiling a New Frontier in Gas Exploration:** M. V. Galvão (Petrobras) Speaker: Marcos Galvão



## Wednesday, 27 August

### SS 28 Leveraging Technology for Sustainability

*Session Chairs: Matthias Imhof and Yi Shen*

**Location: 362A**

- 1:20 PM.....**USDW Testing and Monitoring: Integrated Strategies for Verifying Non-Endangerment at Carbon Capture and Storage Sites:** K. C. Niamike, D. Kingham, L. Molofsky, T. McGuire (GSI Environmental Inc.) Speaker: Kouassi Niamike
- 1:45 PM.....**Co-location of offshore energy systems, insights from recent studies:** E. Contreras, M. Santra, Y. Sanchez-Hernandez (Fugro) Speaker: Edgar Contreras
- 2:10 PM.....**Geophysical Technologies: Key Enablers to CCS and Energy Transition in Malaysian Landscape:** S. Chandola, L. MacGregor (PETRONAS) Speaker: Sandeep Chandola
- 2:35 PM.....**Sustainable Solutions for Seismic Imaging:** A. Crook (OptiSeis Solutions Ltd.) Speaker: Andrea Crook

### AAS 6 Machine Learning 2

*Session Chairs: Reza Torabi and Simon Voisey*

**Location: 372C**

- 3:40 PM.....**Improve seismic inversion quality using a neural network and fast stochastic workflow in relative geologic time: A Midland Basin case study:** B. de Ribet, D. Mouliere-Reiser, Z. Vera (AspenTech) Speaker: Zahary Vera
- 4:05 PM.....**Application of a semi-supervised Self-Organizing Map algorithm for seismic facies classification using inversion attributes:** T. Gardashli, R. Baillet, N. Desgoutte (Beicip Franlab) Speaker: Turgay Gardashli
- 4:30 PM.....**Pore pressure imaging in the over-pressurized facies using the ANN techniques through seismic inversion and well-log approach:** D. Singha, L. Abbas (IIT Kharagpur) Speaker: Dip Kumar Singha
- 4:55 PM.....**Efficient and scalable posterior surrogate for seismic inversion via wavelet score-based generative models:** E. Cirakman<sup>2</sup>, H. Erdinc<sup>1</sup>, F. J. Herrmann<sup>1</sup> (1. Georgia Institute of Technology; 2. Istanbul Technical University) Speaker: Huseyin Tuna Erdinc

### ACQ 2 Innovation in Source and Sensors

*Session Chairs: Zhehao Li and Marc Rocke*

**Location: 361B**

- 3:40 PM.....**Nine component DAS acquisition on experimental multi-component sensors:** K. Hall<sup>1</sup>, K. Innanen<sup>1</sup>, D. Lawton<sup>2</sup> (1. University of Calgary; 2. Carbon Management Canada) Speaker: Kevin Hall
- 4:05 PM.....**Tuned Pulse Source shallow water seismic survey:** J. Large<sup>1</sup>, S. Ronen<sup>1</sup>, P. Wentzler<sup>1</sup>, M. Benaniba<sup>1</sup>, J. Aznar<sup>1</sup>, C. Walker<sup>2</sup>, C. Karri<sup>2</sup>, T. Kaur Rajasansi Harnar Singh<sup>3</sup>, S. Shukri<sup>3</sup> (1. Sercel; 2. SAExploration; 3. Petronas) Speaker: Shuki Ronen
- 4:30 PM.....**Ultralow frequency-enhanced source for OBN survey design and implementation:** F. Diagon, B. Esinov, A. Zarkhidze, T. Allen, M. Vassallo, M. Salgadoe, S. Bernard (SLB) Speaker: Franck Le Diagon
- 4:55 PM.....**Triple source Operation with a Tuned Pulse Source:** J. Large, S. Ronen, P. Wentzler, M. Benaniba, J. Aznar (Sercel) Speaker: Paul Wentzler

### DMLA 5 Seismic Interpretation 2

*Session Chairs: Quentin Corlay and Fan Jiang*

**Location: 372A**

- 3:40 PM.....**Vision Transformer with Affinity Similarity Model for Interactive Seismic Interpretation:** F. Jiang, K. Osypov, S. Singh (Halliburton) Speaker: Fan Jiang
- 4:05 PM.....**Interactive machine learning for assisted geoscience interpretation:** S. Singh, K. Osypov, F. Jiang (Halliburton) Speaker: Satyan Singh
- 4:30 PM.....**How ViTs Scale on Seismic Data: A Study on Model and Data Trade-offs:** A. Sansal, B. G. Lasscock, A. Valenciano (TGS) Speaker: Altay Sansal
- 4:55 PM.....**Detecting geological features in seismic data using Segment Anything Model 2 across multiple datasets:** G. T. Custodio<sup>1</sup>, T. Y. Aoyagi<sup>1</sup>, H. F. Saar<sup>1</sup>, C. F. da Silva<sup>1</sup>, N. F. Guerra<sup>1</sup>, A. Heleno<sup>1</sup>, C. T. Gamba<sup>1</sup>, C. L. da Silva<sup>1</sup>, D. B. Virissimo<sup>1</sup>, E. M. Sales<sup>1</sup>, F. S. Silles<sup>1</sup>, L. G. Netto<sup>1</sup>, O. C. Gandolfo<sup>1</sup>, R. A. Rubo<sup>2</sup> (1. Institute For Technological Research; 2. PETROBRAS) Speaker: Thiago Aoyagi

### EMME 2 Regional Geology of the Middle East

*Session Chairs: Jeffrey Duxbury and Christoph Lehmann*

**Location: 351B**

- 3:40 PM.....**Outcrop Analogs for the Lower Cretaceous Kharab and Shuaiba Formations, UAE: Similarities and Differences:** C. T. Lehmann (BP) Speaker: Christoph Lehmann
- 4:05 PM.....**Advanced Earth model building during iterative imaging updates using machine learning from an East Mediterranean basin case study:** D. F. Fernandez<sup>1</sup>, M. Karer<sup>1</sup>, G. Menzel-Jones<sup>1</sup>, G. Saleh<sup>1</sup>, R. King<sup>1</sup>, A. Menari<sup>1</sup>, A. El-Midany<sup>1</sup>, E. Galvan<sup>1</sup>, A. Moussa<sup>1</sup>, O. Hossam<sup>1</sup>, A. Alemam<sup>1</sup>, A. Mamdouh<sup>2</sup>, R. Seddeeq<sup>2</sup>, M. Radwan<sup>2</sup> (1. SLB; 2. EUG) Speaker: Dan Fernandez
- 4:30 PM.....**Implications of escape tectonics for the late Ediacaran basins of the Arabian plate:** S. Stewart (Saudi Aramco) Speaker: Simon Stewart
- 4:55 PM.....**A stratigraphic review of the post-Hercynian to pre-Khuff: Identifying new exploration opportunities:** C. Gravestock, R. James, M. Simmons (Halliburton) Speaker: Christopher Gravestock

### FWI 8 Imaging

*Session Chairs: Kaushik Banerji and Zedong Wu*

**Location: 370A**

- 3:40 PM.....**FWI angle gathers selective stacking using multi-survey data at Kaskida field:** H. Jin, S. Luo, X. Shen, G. Xia, R. Chrisman (bp) Speaker: Hu Jin
- 4:05 PM.....**Shallow water multi-parameter FWI imaging in Equatorial Guinea:** F. Mancini<sup>1</sup>, A. Pavlow<sup>1</sup>, J. Chaloner<sup>1</sup>, M. Pomfret<sup>1</sup>, H. Dodwell<sup>2</sup>, J. Shino<sup>3</sup>, M. Lahr<sup>3</sup>, R. Christensen<sup>3</sup>, S. Ela Ondo Abegue<sup>4</sup> (1. DUG Technology; 2. Panoro Energy ASA; 3. Kosmos Energy Ltd.; 4. Torre Gepetrol) Speaker: Fabio Mancini
- 4:30 PM.....**Reservoir Characterization Using Multi-Parameter FWI with Robust Angle Gathers:** N. Chemingui, S. Crawley (TGS) Speaker: Nizar Chemingui
- 4:55 PM.....**Prestack full waveform impedance inversion and its ultra-high-frequency compressive sensing applications:**



# Oral Sessions

Wednesday, 27 August

L. Duan<sup>1</sup>, Z. Zhou<sup>1</sup>, H. Yin<sup>1</sup>, Y. Zhang<sup>1</sup>, D. Arnold<sup>2</sup>, S. A. Al Mesaabi<sup>2</sup>, M. Mahgoub<sup>2</sup>, G. Cambois<sup>2</sup> (1. BGP, CNPC; 2. ADNOC) Speaker: Lian Duan

## GM 2 Interpretation and Case Studies

*Session Chairs: Robert Crummett and Sihong Wu*

**Location: 371A**

- 3:40 PM.....**Application of Integrated Geophysical Survey in Deep Hydrocarbon Exploration:** S. Bai, Z. Yang, X. Liu, B. Tang, X. Wu, G. Chen (BGP Inc., CNPC) Speaker: Shiyun Bai
- 4:05 PM.....**Distribution of Mafic and Ultramafic Rocks in the Southern Pecos Mafic Intrusive Complex, Texas: Assessing CO<sub>2</sub> Mineralization and Hydrogen Generation Potential:** R. Arasada, S. Bhattacharya, E. Ukar (Bureau of Economic Geology, The University of Texas at Austin, United States) Speaker: Rama Chandrudu Arasada
- 4:30 PM.....**Magnetic field surveys for legacy oil and gas infrastructure at Stonewall Jackson Lake, WV:** C. Kohnke, V. Gorantla, J. Sams, R. W. Hammack (National Energy Technology Lab) Speaker: Colton Kohnke
- 4:55 PM.....**Mojave Desert aquifer modeling via 3D gravity inversion:** D. E. Bird<sup>1</sup>, K. Coulibaly<sup>3</sup>, T. Stieglitz<sup>2</sup>, J. R. Jansen<sup>2</sup>, K. Marberry<sup>2</sup> (1. Bird Geophysical; 2. Collier Geophysics; 3. Mojave Water Agency) Speaker: Dale Bird

## LAC 4 Mexican Basins

*Session Chairs: Cucha Lopez and Andrew Royle*

**Location: 362B**

- 3:40 PM.....**Paleogene stratigraphic evolution of the Campeche sub-basin, Mexico: Megabreccias, monster deepwater channels/distributary lobes, mass transport complexes, and FLTs ("funny looking things"):** K. Ehman, C. Holmes (Chevron) Speaker: Kenn Ehman
- 4:05 PM.....**New insights into upper jurassic Smackover play extension towards northeastern México: Southern Burgos Basin:** J. Roman-Ramos<sup>1</sup>, C. Bonifacio<sup>2</sup>, D. Ramirez<sup>2</sup> (1. PEMEX; 2. Jaguar E&P) Speaker: Carlos Bonifacio
- 4:30 PM.....**Integrating seismic and frequency analysis for reservoir characterization in a structurally complex onshore field:** L. D. Romero, R. Larrazabal (Halliburton) Speaker: Liscar Romero
- 4:55 PM.....**The petroleum system and evolution of the deepwater Sureste Basin, Mexico: Recent lessons learned and implications for future exploration:** S. C. Leslie, M. Bonora, M. Yanez Luciani, M. Gonzalez, M. Fleming, J. Barbato, M. Bonelli, C. Jaeger, A. Vayssaire, D. A. Armitage (Repsol USA) Speaker: Stephen Leslie

## NS 2 Near Surface Electrical and Electromagnetics

*Session Chairs: Solomon Ehosioke and Lindsey Heagy*

**Location: 361A**

- 3:40 PM.....**Initial results of a frequency domain AEM survey over continuous permafrost along the Inuvik-Tuktoyaktuk corridor, NWT, Canada:** M. Couto<sup>1</sup>, L. Heagy<sup>1</sup>, K. Moshtaghian<sup>2</sup>, A. Alvarez<sup>2</sup>, M. Unsworth<sup>2</sup>, A. Chiasson<sup>2</sup>, M. Lorry<sup>2</sup>, S. Kokelj<sup>3</sup>, A. Rudy<sup>3</sup>, D. G. Froese<sup>2</sup> (1. University of British Columbia; 2. University of Alberta; 3. Northwest Territories Geological Survey) Speaker: Marco Couto

- 4:05 PM.....**Geophysical delineation of sandstone-hosted uranium deposits in Shirley Basin, WY:** C. M. Nuncio, B. J. Carr (University of Wyoming) Speaker: Charles Nuncio
- 4:30 PM.....**Induced Polarization and Self-Potential analyses of Sedimentary Uranium Deposits in the Shirley Basin, Wyoming:** K. Van Wesenbeeck, B. J. Carr (University of Wyoming) Speaker: Bradley Carr
- 4:55 PM.....**A new electric imaging configuration combining dipole-dipole and Schlumberger-Wenner arrays to enhance detection of a thin sliding layer:** P. H. Giao<sup>1</sup>, H. H. Doan<sup>2</sup>, B. Xuan Hanh<sup>2</sup>, N. Q. Pham<sup>2</sup> (1. Petrovietnam University (PVU); 2. Vietnam Petroleum Institute) Speaker: Pham Giao

## RC 2 Applications 2

*Session Chairs: Antonio Buono and Imelda Johnson*

**Location: 362C**

- 3:40 PM.....**Seismic Impedance-Based Lithology Classification and Petrophysical Prediction for CO<sub>2</sub> Storage Site Characterization in the Delaware Basin:** C. Onyeakusi<sup>1</sup>, T. Ude-Akpeh<sup>1</sup>, J. Lee<sup>1</sup>, R. Trentham<sup>1</sup>, M. Henderson<sup>1</sup>, C. Cagle<sup>2</sup>, R. Dupree<sup>2</sup> (1. University of Texas Permian Basin; 2. Omnia Midstream Partners) Speaker: Chukwudi Onyeakusi
- 4:05 PM.....**Combining injectivity permeability with log- and core-derived permeability in static geomodels: Delaware and Midland Basin case histories:** D. R. Hoffman, J. Ge, J. Leng (Bureau of Economic Geology, University of Texas at Austin) Speaker: David Hoffman
- 4:30 PM.....**Self-Potential and Fluid Flow Inversion for Detecting Fractures:** S. Al Nasser (Saudi Aramco) Speaker: Saleh Al Nasser
- 4:55 PM.....**Reservoir architecture of compound delta clinoforms:** C. Olariu<sup>1</sup>, R. J. Steel<sup>1</sup>, A. Osman<sup>2</sup>, V. Rossi<sup>3</sup> (1. The University of Texas at Austin; 2. The University of the West Indies; 3. National Research Council of Italy) Speaker: Cornel Olariu

## RP 2 Application

*Session Chairs: Laurent Louis and Madhumita Sengupta*

**Location: 371B**

- 3:40 PM.....**Regional petrophysical and rock physics database and analysis for carbon capture and sequestration (CCS) screening offshore Australia:** M. Ellis, L. Leon, N. Aryal, Y. Liu, A. Y. Sayed, D. Barlass, A. Karvelas (SLB) Speaker: Michelle Ellis
- 4:05 PM.....**Rock Physics approach to quantify microporosity and permeability in microporous carbonate:** V. Saxena (RockLog Consultancy) Speaker: Vimal Saxena
- 4:30 PM.....**Study on the Petrophysical Characteristics of Dolomitized Carbonates in the Leikoupo Formation, Western Sichuan:** H. Wang, H. Shen, W. Liu, W. Cheng, B. Liu (SINOPEC Geophysical Research Institute Co. Ltd.) Speaker: Huan Wang
- 4:55 PM.....**Joint elastic-electric characterization of marine sediments in South China Sea:** X. Zhang<sup>2</sup>, S. Chen<sup>2</sup>, H. Yuan<sup>1</sup>, Z. Hu<sup>3</sup> (1. China University of Geosciences Beijing; 2. Research Institute of Petroleum Exploration and Development; 3. BGP, CNPC) Speaker: Xin Zhang





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## Wednesday, 27 August

### SILIC 2 Conventional Studies in Sedimentary Processes

*Session Chairs: Samuel Hudson and Carlos Molinares*

**Location: 351A**

- 3:40 PM.....**Submarine Landslide Influence on Delta Stratigraphy and Channel Formation, Northeastern Gulf of Mexico:** J. Covault (The University of Texas at Austin) Speaker: Jake Covault
- 4:05 PM.....**WITHDRAWN**
- 4:30 PM.....**Inyan Kara Group, Lower Cretaceous, Black Hills, South Dakota and Wyoming: Outcrop Studies for Williston Basin Resource Management:** R. Beaubouef (RTB Geoscience) Speaker: Rick Beaubouef
- 4:55 PM.....**Seismic interpretation and numerical modeling of clastic sediment flux for reservoir quality prediction (Arabian Plate, Cretaceous):** N. A. Michael, R. Zuhlke, E. Aljshi (Saudi Aramco) Speaker: Nikolaos Michael

### SP 8 Seismic Data Interpolation and Reconstruction

*Session Chairs: Gordon Poole and Adam Searle*

**Location: 372B**

- 3:40 PM.....**Irregular seismic data reconstruction with user-defined grids:** L. Dong, L. Zhai, S. Guo, D. Zhou, Y. Tian, G. Wei (BGP, CNPC) Speaker: Lieqian Dong
- 4:05 PM.....**Simultaneous off-the-grid reconstruction and denoising: A label free deep learning framework:** C. Li<sup>2</sup>, O. Saad<sup>1</sup>, Y. Chen<sup>2</sup> (1. King Abdullah University of Science and Technology; 2. The University of Texas at Austin) Speaker: Chao Li
- 4:30 PM.....**Physics-informed neural network for seismic data reconstruction of compressed sensing:** Y. Li, W. Lu, W. Cao (Tsinghua University) Speaker: Yinshuo Li
- 4:55 PM.....**Reconstruction of missing near-offset data using multiples based on deep learning:** Z. Yu, Z. Li, Y. Qiao, P. Wang, H. Zhang, Z. He, Q. Zhang, B. Zhao (China University of Petroleum) Speaker: Zhina Li

### SS 29 Discovery Thinking: Integrating Geology and Geophysics: DHI Reveals Major Subsurface Discoveries 2

*Session Chairs: Charles Sternbach and Mike Forrest*

**Location: 360A**

- 3:40 PM.....**Direct Hydrocarbon Indicators in carbonates: Current landscape, future potential?:** H. Pettingill<sup>1</sup>, R. Roden<sup>2</sup>, r. holeywell<sup>1</sup> (1. Rose and Associates; 2. Rocky Ridge Resources, Inc.) Speaker: Henry S Pettingill
- 4:30 PM.....**New Frontiers in the Last Frontier, Northern Alaska:** M. Easley (Pantheon Resources) Speaker: Max Easley

### SS 30 Pathways to Sustainable Resources

*Session Chairs: Joel Le Calvez and Nimisha Vedanti*

**Location: 362A**

- 3:40 PM.....**Collaboration, Communities, and Training for CCUS:** M. G. Imhof (ExxonMobil) Speaker: Matthias Imhof
- 4:05 PM.....**India's energy transition and CCUS status and future outlook:** V. C. Nettem<sup>1</sup>, N. Vedanti<sup>2</sup> (1. CSIR-Indian Institute of Chemical Technology; 2. CSIR-National Geophysical Research Institute (Non-Author)) Speaker: Nimisha Vedanti
- 4:30 PM.....**Promoting gender equity and human rights in resources management: The crafting of a UNECE guidelines document for the UNFC and UNRMS frameworks of the United Nations:** M. A. Capello (Red Tree Consulting LLC) Speaker: Maria Angela Capello
- 4:55 PM.....**System Dynamics for Levelized Cost of Carbon Transport and Storage Scenarios:** G. Wilson (Halliburton) Speaker: Glenn Wilson

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# Oral Sessions

Thursday, 28 August

## ACQ 3 Survey Design and Compressive Sensing 2

Session Chairs: Frank Janiszewski and Dave Monk

Location: 361B

- 8:00 AM.....**Floating window Fourier transform and its applications for estimating spectra of not perfectly periodic and nonuniformly sampled discrete signals:** A. Titova, M. B. Wakin, A. Tura (Colorado School of Mines) Speaker: Anna Titova
- 8:25 AM.....**'Lobster' Nodes: Designing a unique FWI OBN survey at Atlantis field:** I. Ahmed, L. Jiang, J. Naranjo, L. Lopez, Y. Feng, O. Egbue (BP America) Speaker: Imtiaz Ahmed
- 8:50 AM.....**Seismic geometry quantitative evaluation based on 3D elastic full-waveform inversion:** L. Wu, X. Wang, N. Wang, Y. Lei, H. Pi, P. Lv, X. Guo (BGP, CNPC) Speaker: Long Wu
- 9:15 AM.....**Popcorn shooting in Compressive Sensing acquisition: Source encoding, reconstruction, and deblending for efficient and low-impact surveys:** J. A. Acedo (University of Alberta) Speaker: Joaquín Acedo

## AP 1 Exploration Frontiers

Session Chairs: Vicki Amir and Joniell Borges

Location: 351B

- 8:00 AM.....**Onshore to offshore Indus and Kutch Basins of Pakistan and India: A regional approach to discovery thinking:** A. Pepper<sup>1</sup>, J. Laigle<sup>2</sup> (1. ThisIsPetroleumSystem; 2. Xplorlab LLC) Speaker: Andrew Pepper
- 8:25 AM.....**The Pegasus Basin – New Zealand's Ancient Gondwanan Petroleum System?:** M. Macnaughtan<sup>1</sup>, I. Pecher<sup>2</sup>, L. Strachan<sup>1</sup> (1. The University of Auckland; 2. Texas A&M University, Corpus Christi) Speaker: Michael Macnaughtan
- 8:50 AM.....**Unlocking the Hydrocarbon Potential in the North Sumatra Basin, Andaman Sea, Indonesia:** M. A. Reynald, R. James, I. Gath, C. Gravestock (Halliburton) Speaker: Mark Reynald
- 9:15 AM.....**Comprehensive assessment of hydrocarbon in the deep-water area offshore SW Taiwan using 3D seismic data:** W. Liao, W. Chiu, C. Lee (CPC CORP., Taiwan) Speaker: Wei-Zhi Liao

## CO<sub>2</sub> 1 Monitoring

Session Chairs: Joel Le Calvez and Kristoffer Walker

Location: 362A

- 8:00 AM.....**Adjoint state anelastic full waveform inversion (Q-FWI) for CO<sub>2</sub> saturation monitoring: Leveraging joint velocity and attenuation attributes:** S. Dasgupta<sup>1</sup>, Y. Xie<sup>1</sup>, M. Sen<sup>1</sup>, B. Boddupalli<sup>2</sup> (1. The University of Texas at Austin; 2. SINTEF) Speaker: Sohini Dasgupta
- 8:25 AM.....**Integrated passive and active source sparse seismic monitoring for geologic carbon storage projects:** P. Nyffenegger, K. D. Hutchenson, D. Quigley, J. Yelton, M. Dahl (Geospace Technologies Corporation) Speaker: Paul Nyffenegger
- 8:50 AM.....**Use of Microseismic to Improve Understanding of CO<sub>2</sub> Migration in the Mt Simon Storage Reservoir at the Illinois Basin Decatur Project (IBDP):** T. R. Carr, E. Fathi (West Virginia University) Speaker: Timothy Carr
- 9:15 AM.....**Monitoring CO<sub>2</sub> injection into a depleted clastic reservoir using seismic, EM and gravity approaches:** J. Kho<sup>1</sup>, L.

MacGregor<sup>1</sup>, N. Hamid<sup>1</sup>, M. Ralim<sup>1</sup>, S. Chandola<sup>2</sup> (1. Petronas; 2. Petronas (Non-Author)) Speaker: Sandeep Chandola

## DMLA 6 Reservoir and Petrophysical Analysis 2

Session Chairs: Justin Birdwell and Nam Pham

Location: 372A

- 8:00 AM.....**Seismic identification techniques for deep permian-triassic reef-shoal reservoirs in complex mountainous areas, China:** F. Wu<sup>1</sup>, X. Wang<sup>1</sup>, Y. Yan<sup>2</sup>, x. wang<sup>1</sup>, z. yang<sup>1</sup>, y. xiong<sup>1</sup> (1. CNPC; 2. Exploration and Development Research Institute, PetroChina Southwest Oil & Gasfield Company) Speaker: Furong Wu
- 8:25 AM.....**Deep Learning Enhanced Large-Area Quantitative SEM Pore Analysis in Shale:** S. Peng, P. Periwal (University of Texas at Austin) Speaker: Sheng Peng
- 8:50 AM.....**An observational approach to petrophysical modeling using recent developments in AI:** A. J. Feltham (LithoSight Ltd) Speaker: Andrew Feltham
- 9:15 AM.....**Using Stable Diffusion Model to Reconstruct Missing Core Intervals:** X. Liu, U. Waheed, K. Ayranci, A. Abdlmutalib (King Fahd University of Petroleum and Minerals) Speaker: Ammar Abdlmutalib

## FWI 9 Novel Approaches and Workflows 2

Session Chairs: Jian Mao and Yaxun Tang

Location: 370A

- 8:00 AM.....**Target-Oriented FWI for Subsalt Imaging:** X. Song, S. Luo, I. Pawelec, T. Yang, N. Omoruyi, A. Omale, G. Ritter, G. Xia, R. Johnston (BP) Speaker: Xiaolei Song
- 8:25 AM.....**A journey of S-wave velocity update via reflection-based converted-wave FWI:** S. Roy, Y. Zhai, M. Elbadry, J. Xu, J. Rickett (SLB) Speaker: Soumya Roy
- 8:50 AM.....**The power of total wavefield:** M. Vyas, S. Luo, J. A. Dellinger, D. Wang, J. Etgen (bp) Speaker: Madhav Vyas
- 9:15 AM.....**Polychromatic multiparameter FWI backed by symbolic abstractions:** J. Washbourne<sup>1</sup>, L. Decker<sup>1</sup>, S. Kaplan<sup>1</sup>, A. Loddock<sup>1</sup>, O. Cristea<sup>1</sup>, K. Bube<sup>2</sup>, M. Louboutin<sup>3</sup> (1. Chevron; 2. University of Washington; 3. Devito-Codes) Speaker: John Washbourne

## GI 1 Case Studies 2

Session Chairs: Michael McGlashan and Linda Price

Location: 361A

- 8:00 AM.....**How did the Louann evaporite form?: Challenging the paradigms of giant salt deposits:** A. G. Konstantinou, G. Karner (ExxonMobil) Speaker: Alexandros Konstantinou
- 8:25 AM.....**Unraveling the complexity of overpressure development in organic-rich mudrock formations: Insights from process-based geomechanical modeling:** Y. Alzayer<sup>1</sup>, A. N. Wicaksono<sup>2</sup>, G. Gairola<sup>2</sup> (1. Aramco; 2. King Abdullah University of Science and Technology) Speaker: Yaser Alzayer
- 8:50 AM.....**Closing the gap between Seismic, Geology and Reservoir Models with light-weight constrained forward stratigraphic modeling:** J. Dulac<sup>1</sup>, A. Wilson<sup>2</sup> (1. Next-Shot LLC; 2. Eliis) Speaker: Alex Wilson
- 9:15 AM.....**ML assisted seismic interpretation: Improved prospect evaluation study in the Lower Indus basin, Pakistan:** S.



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Bibi<sup>1</sup>, U. Farooq<sup>2</sup>, M. Bhatti<sup>2</sup> (1. SLB (Schlumberger); 2. Pakistan Petroleum Limited) Speaker: Sehrish Bibi

### INT 1 Machine Learning in Assisting Geological Interpretation

*Session Chairs: Rachel Lippoldt and Fengming Ruan*

**Location: 371A**

- 8:00 AM.....**3D fault detection using vision transformer with a hybrid-attention mechanism:** C. Li<sup>1</sup>, S. Fomel<sup>2</sup>, Y. Chen<sup>3</sup>, R. Dommissé<sup>4</sup>, A. Savvaids<sup>1</sup> (1. University of Texas at Austin; 2. University of Texas at Austin; 3. The University of Texas at Austin; 4. University of Texas at Austin) Speaker: Chao Li
- 8:25 AM.....**Integrating 3D neural networks fault detection and implicit fault modeling in a global seismic interpretation workflow:** Q. Corlay<sup>2</sup>, S. Vitel<sup>1</sup>, B. Mallison<sup>1</sup>, A. Sekar<sup>1</sup>, L. Wright<sup>1</sup>, E. Wang<sup>1</sup>, M. Amaru<sup>1</sup>, B. Hern<sup>1</sup>, L. Souche<sup>2</sup>, K. Wong<sup>2</sup>, S. Philit<sup>2</sup> (1. Chevron; 2. Eliis) Speaker: Quentin Corlay
- 8:50 AM.....**3D boulder prediction and filtering workflow for offshore windfarm site characterization:** S. Chambers (S&P Global) Speaker: Samuel Chambers
- 9:15 AM.....**The fault-karst carbonate reservoir prediction based on artificial intelligence and its application:** X. Zhang, Y. Che, S. Lin, J. Ding, W. Li, S. Mu (CNPC Engineering Technology R & D Co., Ltd) Speaker: Xichen Zhang

### IPS 1 Hydraulically-induced Fracture Network Monitoring

*Session Chairs: Erkan Ay and Ting Chen*

**Location: 362C**

- 8:00 AM.....**Microseismic events generated by slip on closed hydraulic fractures:** Z. Zhang, K. Nihei, M. Bader, I. Lim Chen Ning, Z. Fang, A. Shabelansky (Chevron U.S.A. Inc.) Speaker: Zhishuai Zhang
- 8:25 AM.....**Hydraulic fracture growth: Storage or leak-off dominated?:** T. Mirzayeva, M. Van der Baan (University of Alberta) Speaker: Mirko Van der Baan
- 8:50 AM.....**3D microseismic events localization using a 2D conditional diffusion model:** D. Wamriew, M. Ravasi, T. Alkhalifah (KAUST) Speaker: Daniel Wamriew
- 9:15 AM.....**SRV, focal mechanism, and effect of pump shutdown of microseismic ground monitoring:** B. Liang (GeolImage LLC) Speaker: Beiyuan Liang

### RP 3 Digital Rock

*Session Chairs: Arpita Bathija and Ronny Hofmann*

**Location: 371B**

- 8:00 AM.....**Image registration of 2D optical thin sections with 3D CT scans for digital rock physics:** J. Chung, W. Cai, T. Mukerji (Stanford University) Speaker: Jaehong Chung
- 8:25 AM.....**Few-shot learning for digital rock image processing to mechanical property prediction:** Z. Wang, D. Cao (China University of Petroleum - East China) Speaker: Ziqiang Wang
- 8:50 AM.....**Study on the Filling Characteristics of Deep Carbonate Reservoirs Based on Digital Rock Physics:** W. Cheng, S. Ji, B. Liu, W. Liu, H. Shen (SINOPEC Geophysical Research Institute Co. Ltd.) Speaker: Wei Cheng
- 9:15 AM.....**Combined effect of porosity and local grain size distribution on the static elastic properties of high porosity sandstone through image-based numerical simulations:** L. Louis, Y. Han (Aramco Americas) Speaker: Laurent Louis

### SP 9 Novel Solutions and Emerging Technologies

*Session Chairs: Rodrigo Felicio Fuck and Xu Li*

**Location: 372B**

- 8:00 AM.....**Deep resolution: Will Ocean Bottom Node be the answer?:** X. Shen (BP) Speaker: Xukai Shen
- 8:25 AM.....**Multi-Dimensional Deconvolution of Seismic-While-Drilling data:** N. Wang<sup>1</sup>, M. Ravasi<sup>2</sup>, T. Alkhalifah<sup>1</sup> (1. King Abdullah University of Science and Technology; 2. Shearwater GeoServices) Speaker: Ning Wang
- 8:50 AM.....**Theory of seismic phase analysis using circular statistics:** A. Rohatgi, A. Bakulin, S. Fomel (The University of Texas at Austin) Speaker: Akshika Rohatgi
- 9:15 AM.....**Wavelet-based normal moveout (W-NMO) correction:** B. Zhang<sup>1</sup>, Y. Wang<sup>2</sup> (1. The University of Alameda; 2. Imperial College London) Speaker: Bo Zhang

### SS 31 SEPM Research Symposium: Mixed Turbidite-Contourite Reservoirs 1

*Session Chairs: Rick Beaubouef and Stan Stanbrook*

**Location: 351A**

- 8:00 AM.....**Deepwater benthic-current-dominated ('contourite') depositional systems: Key processes, sediment sources and distribution, and recognition criteria at core to reflection-seismic scales:** K. Bohacs (KMBohacs GEOconsulting LLC) Speaker: Kevin Bohacs
- 8:25 AM.....**Initiation and evolution of contour-current related channels and other longitudinal features on continental slopes and contourite terraces: A hydrodynamic-sedimentologic analysis with applications to hydrocarbon exploration:** J. J. Fedele (ExxonMobil) Speaker: Juan Jose Fedele
- 8:50 AM.....**Integrated characterization of mixed deep-water systems along the Norwegian Continental Shelf, new perspectives on stratigraphic trap development:** C. Serie (University of Oslo) Speaker: Christophe Serie
- 9:15 AM.....**Slope Parallel Sediment Transport: Recognition and Impact in Deepwater Plays:** R. Fitzsimmons (Hess Corporation) Speaker: Roy Fitzsimmons

### SS 32 Natural Source Electromagnetic for Mining 1

*Session Chairs: Randall Mackie and Hannah Peterson*

**Location: 372C**

- 8:00 AM.....**Exploring the influence of various transfer functions on airborne magnetotelluric inversion:** D. C. Cowan, L. Heagy, D. W. Oldenburg (University of British Columbia) Speaker: Devin Cowan
- 8:25 AM.....**The analysis of MobileMT data from the Athabasca Basin, SK, Canada:** D. Sattel<sup>1</sup>, H. Peterson<sup>2</sup>, K. Witherly<sup>2</sup> (1. EM Solutions LLC; 2. Condor Consulting) Speaker: Hannah Peterson
- 8:50 AM.....**Helicopter Natural Field Electromagnetic and Magnetic Results over the Rogue Reduced Intrusion Related Gold System (RIRGS), Tintina Gold Province, Yukon:** J. M. Legault<sup>1</sup>, K. Kwan<sup>1</sup>, T. Branson<sup>2</sup>, B. Bolin<sup>3</sup> (1. Geotech Ltd.; 2. Snowline Gold Corp.; 3. Bolin Geophysical Services LLC) Speaker: Jean Legault
- 9:15 AM.....**Discussion**



# Oral Sessions

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## TL 2 4D Seismic Acquisition and Processing 2

Session Chairs: Priyanka Dutta and Jennifer Zhang

Location: 360A

- 8:00 AM.....**Time-lapse prestack image-domain least squares migration for ultradeep presalt carbonate field in Santos Basin, offshore Brazil:** M. Shadrina, A. Sladkovsky, E. Saragoussi, M. Cavalca, S. Trezzi (SLB) Speaker: Maria Shadrina
- 8:25 AM.....**SEAM numerical modeling of CO<sub>2</sub> sequestration and monitoring in a depleted gas reservoir:** W. Abriel<sup>1</sup>, M. Fehler<sup>2</sup>, A. Hussein<sup>3</sup>, R. Prioul<sup>5</sup>, N. Ruby<sup>4</sup>, D. Thornton<sup>4</sup>, J. Stefani<sup>6</sup> (1. Orinda Geophysical; 2. Fehler Consultancy LLC; 3. SLB; 4. Chevron; 5. SLB; 6. Graywacke) Speaker: William Abriel
- 8:50 AM.....**OBN Reservoir monitoring. 14 years, 4 surveys. The evolution of OBN acquisition and processing of the Agbami Field deep water Nigeria:** P. Nevill<sup>1</sup>, Q. Sun<sup>2</sup>, A. Adekanle<sup>2</sup>, A. Ikeneku<sup>3</sup>, I. Salami<sup>3</sup>, L. Zhuo<sup>4</sup> (1. Chevron; 2. Star Deep Water Petroleum Limited; 3. Star Deep Water Petroleum Limited; 4. Chevron Technology Center) Speaker: Peter Nevill
- 9:15 AM.....**Optimized traditional 4D binning with primary and secondary trace integration – Usan field:** I. Samanta<sup>1</sup>, D. Davies<sup>1</sup>, I. Novianti<sup>1</sup>, E. Camarada<sup>1</sup>, F. Elebe<sup>1</sup>, T. Tigiri<sup>1</sup>, A. Muzan<sup>1</sup>, D. Chu<sup>2</sup>, M. Helgerud<sup>2</sup>, A. S. Adegbaju<sup>2</sup>, J. Sabo<sup>3</sup> (1. TGS; 2. ExxonMobil; 3. NNPC) Speaker: Indranil Samanta

## USC 4 Studies of Geologic and Geophysical Processes: Gulf of Mexico 1

Session Chairs: Anurag Pandey and Jara Schnyder

Location: 362B

- 8:00 AM.....**The nature of healing phase gravity flows overlying mass failures in salt diapiric basins: A case study in the Thunder Horse area, Gulf of Mexico salt province:** A. Alhussaini, L. J. Wood (Colorado School of Mines) Speaker: Abdulrahman Alhussaini
- 8:25 AM.....**Reducing exploration risk in Green Canyon, northern Gulf of Mexico, using ultralong-offset sparse OBN and elastic FWI:** M. Rowan<sup>1</sup>, K. Lyons<sup>2</sup> (1. Rowan Consulting Inc.; 2. SLB) Speaker: Mark Rowan
- 8:50 AM.....**Acquisition and early imaging of a long-offset, low-frequency sparse node survey in the Gulf of Mexico:** S. Ji, Z. Yang, R. De Marco Centeno, H. Zhu, B. Wray (Viridien) Speaker: Zhiping Yang
- 9:15 AM.....**Applying Causal Epistemic AI to Estimate Fluid Properties in Complex Reservoirs:** R. Chakraborty<sup>1</sup>, M. Raghorte<sup>1</sup>, B. Bixler<sup>1</sup>, H. Elshahawi<sup>2</sup>, C. Donohue<sup>3</sup> (1. Senslytics Corporation; 2. NoviDigiTech; 3. Murphy Oil Corp) Speaker: Blake Bixler

## ACQ 4 Land Seismic Challenges and Opportunities 2

Session Chairs: Sean Contenti and Bruce Karr

Location: 361B

- 10:20 AM....**Embedded Field Testing Single-Sensor Nodes versus Local Receiver Arrays in 3D Shooting:** M. P. Brown<sup>1</sup>, L. D'Ambrosia<sup>1</sup>, W. McCarthy<sup>2</sup> (1. Aspect Energy LLC; 2. Land Seismic Noise Specialists) Speaker: Morgan Brown
- 10:45 AM....**Understanding the physical process of how common ultra-slow velocities in the very near surface can strongly distort**

**land and OBN seismic data:** C. Stork (Land Seismic Noise Specialists) Speaker: Christof Stork

- 11:10 AM ...**Discussion on seismic vibrator field QC standard:** Z. Wei<sup>1</sup>, R. Wang<sup>2</sup> (1. INOVA Geophysical; 2. BGP, CNPC) Speaker: Zhouhong Wei
- 11:35 AM ...**Ultra-dense nodal 3D seismic for high-resolution characterization the Devine injection field laboratory:** A. Bakulin<sup>1</sup>, A. R. Chatenay<sup>2</sup>, S. Swaminadhan<sup>1</sup>, R. Burnstad<sup>1</sup>, M. Shuster<sup>1</sup> (1. University of Texas at Austin; 2. Explor) Speaker: Andrey Bakulin

## AP 2 Regional Studies and Technology

Session Chairs: Avinash Chandra and William Dickson

Location: 351B

- 10:20 AM...**Unraveling the tectonostratigraphy and petroleum system of the Andaman Basin, India:** M. Shahriar, R. Stewart, D. Hume, M. N. Bugti (University of Houston) Speaker: Md Upal Shahriar
- 10:45 AM...**Is This My Stop? Province Limits of CO<sub>2</sub> and Related Non-HC Contaminants and their Associated Geofluid Pathways:** W. Dickson<sup>1</sup>, J. Granath<sup>2</sup>, M. E. Odegard<sup>3</sup> (1. DIGs (Dickson Int'l Geosciences); 2. Granath & Assoc Consulting Geol; 3. GrizGeo, LLC) Speaker: William Dickson
- 11:10 AM ...**Unveil the hidden exploration opportunity through holistic approach: Case Study from Sandakan, Semporna, Kinabalu and Layang-Layang Basin Northwest and East Sabah:** M. Y. Mansyur<sup>1</sup>, M. Azrafy Bin Amin<sup>\*2</sup> (1. Halliburton; 2. Petronas (Non-Author)) Speaker: Mohd Khairil Azrafy Bin Amin
- 11:35 AM ...**Application of Pseudo3D in the West Natuna Basin, Indonesia:** D. Markus<sup>1</sup>, K. Rimaila<sup>1</sup>, P. de Groot<sup>1</sup>, R. Muammar<sup>2</sup> (1. dGB Earth Sciences; 2. Conrad Asia Energy Limited) Speaker: Kristoffer Rimaila

## CO<sub>2</sub> 2 Reservoir Characterization

Session Chairs: Kathryn Denommee and Amanda Guzofski

Location: 362A

- 10:20 AM...**Machine learning-driven reservoir characterization for optimized CO<sub>2</sub> sequestration:** U. Manzoor, F. Arshad, S. Oelfke (LMK Resources) Speaker: Scott Oelfke
- 10:45 AM...**A fluid identification method using combined neutron gamma information from four detectors in the carbonate rock formation for oil recovery by injecting CO<sub>2</sub>:** X. Zhang (China University of Petroleum (East China)) Speaker: Xiaoyang Zhang
- 11:10 AM ...**WITHDRAWN**
- 11:35 AM ...**A CCUS Case Study in the Bunter Sandstone, Southern North Sea (SEG EVOLVE Program):** A. Javid (University of Houston) Speaker: Abdolrazzag Javid

## FWI 10 Novel Approaches and Workflows 3

Session Chairs: Young Ho Cha and Casey Ruplinger

Location: 370A

- 10:20 AM...**Self-correcting salt-model building from a highly inaccurate start model:** M. Warner<sup>1</sup>, C. Mavropoulos<sup>1</sup>, T. Nangoo<sup>1</sup>, A. Umpleby<sup>1</sup>, N. Shah<sup>1</sup>, D. Tishechkin<sup>2</sup> (1. S-Cube; 2. Amazon Web Services) Speaker: Christos Mavropoulos
- 10:45 AM...**Homogenization for 3D elastic FWI: A practical application:** L. Métivier<sup>1</sup>, R. Brossier<sup>2</sup>, J. Cao<sup>2</sup> (1. CNRS; 2. University Grenoble Alpes) Speaker: Ludovic Métivier





## Thursday, 28 August

- 11:10 AM ...**Reflection full-waveform inversion with enhanced soft dynamic time warping loss:** F. Chen<sup>1</sup>, D. E. Keyes<sup>1</sup>, M. Ravasi<sup>2</sup> (1. King Abdullah University of Science and Technology; 2. Shearwater Geoservices) Speaker: Fuqiang Chen
- 11:35 AM ...**Improving fractured basement reservoir images via elastic FWI and diffraction imaging:** M. Matta<sup>1</sup>, W. Wely<sup>1</sup>, E. Hooi<sup>1</sup>, O. Zdraveva<sup>1</sup>, N. Seymour<sup>1</sup>, D. Nguyen Duc<sup>2</sup>, G. Phan Phuoc<sup>2</sup>, N. Kieu Anh<sup>2</sup> (1. SLB; 2. Petrovietnam) Speaker: Mina Matta

### GI 2 Case Studies 3

*Session Chairs: Michael McGlashan and Linda Price*

#### Location: 361A

- 10:20 AM ...**Rocketquake Seismology: Data Processing Methods and Results:** G. Schuster (University of Utah) Speaker: Gerard Schuster
- 10:45 AM ...**Advances and strategies for tackling seismic exploration techniques in complex mountainous areas of the Longmenshan fold-and-thrust belt, China:** Y. Li, F. Wu, X. Wang, Y. Zhu, Q. Wang, Y. Diao (CNPC) Speaker: Furong Wu
- 11:10 AM ...**Leveraging LLM-based Assistants for Geoscientific Software:** D. Anikiev, U. Waheed, K. Ayranci (King Fahd University of Petroleum and Minerals) Speaker: Denis Anikiev
- 11:35 AM ...**A customized regional velocity model for resolving and quantifying structural uncertainties: North Kuwait Jurassic reservoirs case study:** A. Al-Sabari<sup>2</sup>, K. Laiq<sup>1</sup>, R. Narhari<sup>2</sup>, S. K. Bhukta<sup>2</sup>, A. Al-Anzi<sup>2</sup>, A. Al-Ajmi<sup>2</sup>, S. H. Nemli<sup>3</sup>, L. R. Miller<sup>3</sup> (1. SLB; 2. Kuwait Oil Company; 3. Consultant) Speaker: Kamran Laiq

### INT 2 Machine learning in Assisting Reservoir Characterization

*Session Chairs: Sergio Chávez-Pérez and Dan Fernandez*

#### Location: 371A

- 10:20 AM ...**Lithology identification with imbalanced data based on Deep Learning Ensemble Optimization:** Y. Ma, D. Cao, J. Zhao (China University of Petroleum - East China) Speaker: Yubin Ma
- 10:45 AM ...**Deep learning-based prediction of effective offshore reservoirs using multimodal and multiscale data in highly heterogeneous and fluvial environments:** X. Wang<sup>2</sup>, Z. Chen<sup>1</sup>, Y. Du<sup>2</sup>, P. Zhang<sup>1</sup>, X. Qiao<sup>2</sup>, F. Ruan<sup>1</sup>, C. Xin<sup>2</sup>, Y. Liu<sup>1</sup>, P. Zhao<sup>2</sup>, W. Mi<sup>2</sup>, F. Wong<sup>1</sup>, K. Wang<sup>2</sup>, C. Lin<sup>1</sup> (1. SLB; 2. Shaanxi Yanchang Petroleum (Group) Co. Ltd.) Speaker: Zongpeng Chen
- 11:10 AM ...**Identification Methods and Applications of Low-velocity mudstone Based on Generated Samples:** M. Ren (The Southwest Petroleum University) Speaker: Mengyu Ren
- 11:35 AM ...**A machine learning-based method for predicting pore throat structures of carbonate rocks from NMR data:** J. Hou (Research Institute of Petroleum Exploration & Development, PetroChina) Speaker: Jue Hou

### IPS 2 Induced Seismicity: Fault Monitoring 1

*Session Chairs: Adam Baig and Zhishuai Zhang*

#### Location: 362C

- 10:20 AM ...**Seismogenic index model of earthquakes induced by water disposal in Oklahoma and Kansas:** S. A. Shapiro, C. Langenbruch (Freie Universitaet Berlin) Speaker: Serge Shapiro

- 10:45 AM ...**Polarity-Based Focal Mechanism Inversion for Fiber Optics Sensing Data: Requirement for Robust Inversion in Downhole Monitoring:** Y. Miao, T. Mizuno, J. Yin, J. Le Calvez (SLB) Speaker: Takashi Mizuno
- 11:10 AM ...**Improving near real-time passive seismic monitoring with AI: A gradient-boosted trees approach to phase picking:** A. Booterbaugh, E. Naumov (Nanometrics) Speaker: Aaron Booterbaugh
- 11:35 AM ...**Modeling and Forecasting Wastewater Disposal Induced Seismicity in the Delaware Basin:** Z. Fang (Chevron) Speaker: Zijun Fang

### RP 4 Elasticity and Poroelasticity

*Session Chairs: Alex Martinez and Leon Thomsen*

#### Location: 371B

- 10:20 AM ...**The influence of crack aspect ratio and crack density on the third-order elastic constants and Padé acoustoelastic coefficients under hydrostatic pressure:** Y. Feng (China University of Petroleum (East China) Speaker: Yasong Feng
- 10:45 AM ...**Constraining mineral properties for fluid substitutions using Digital Rock simulations:** C. Pradhan, R. Hofmann, N. Saxena (Shell) Speaker: Chaitanya Pradhan
- 11:10 AM ...**Shale rock physical model and hydraulic fracturing process analysis under the influence of pore pressure:** Q. Yang<sup>1</sup>, J. Li<sup>1</sup>, J. Cui<sup>1</sup>, Y. Wang<sup>1</sup>, L. Han<sup>1</sup>, Y. Zhang<sup>1</sup>, X. Wei<sup>2</sup> (1. China University of Petroleum (Beijing); 2. NWGI) Speaker: Qiyu Yang
- 11:35 AM ...**On linearity in saturation versus elastic properties relations:** S. J. Omovie<sup>1</sup>, J. Dvorkin<sup>2</sup> (1. Goshey Energy Services LLC; 2. KFUPM/Retired) Speaker: Sheyore Omovie

### SP 10 Enhancement with Machine Learning

*Session Chairs: Madhav Vyas and Tao Zhao*

#### Location: 372A

- 10:20 AM ...**Deep learning model for full deghosting of Ultra-High Resolution Seismic data with a custom autocorrelation loss:** B. Farmani<sup>1</sup>, M. Faouzi Zizi<sup>1</sup>, M. Roberts<sup>2</sup> (1. TGS; 2. TGS (Non-Author)) Speaker: Mark Roberts
- 10:45 AM ...**Accelerating Marchenko redatuming with deep learning: An application to the Volve field data:** N. Wang<sup>1</sup>, M. Ravasi<sup>2</sup>, T. Alkhalifah<sup>1</sup> (1. King Abdullah University of Science and Technology; 2. Shearwater GeoServices) Speaker: Ning Wang
- 11:10 AM ...**Deep learning-based seismic imaging enhancement utilizing multiples:** Z. Li, Y. Qiao, H. Zhang, P. Wang, Z. He, Q. Zhang, B. Zhao, Z. Yu (China University of Petroleum) Speaker: Zhina Li
- 11:35 AM ...**Improving 3D Seismic Resolution in the Loess Plateau: Leveraging 2D Crooked-Line Gully Survey through Weak Supervision:** D. Liu<sup>1</sup>, M. D. Sacchi<sup>1</sup>, Y. He<sup>2</sup>, X. Wang<sup>2</sup>, W. Chen<sup>2</sup>, F. Li<sup>3</sup>, J. Chen<sup>3</sup>, Y. Mu<sup>3</sup> (1. University of Alberta; 2. Xi'an Jiaotong University; 3. PetroChina Changqing Oilfield Company) Speaker: Dawei Liu

# Oral Sessions

Thursday, 28 August

## SP 11 Acoustic, Elastic and Least-Squares Imaging

Session Chairs: Nizar Chemingui and Cintia Lapilli

Location: 372B

- 10:20 AM...**Angle-domain least-squares Kirchhoff migration through explicit Hessian operator:** W. Zhang, M. D. Sacchi (University of Alberta) Speaker: Wei Zhang
- 10:45 AM...**Specular Filter RTM angle gathers for high fidelity AVO attributes: Atoll case study:** C. Kumar, D. Baptiste, D. Kumar, M. Elsayed (bp) Speaker: Chandan Kumar
- 11:10 AM...**Adaptive vertical nonuniform grid optimized elastic RTM:** W. Lv<sup>1</sup>, Q. Du<sup>1</sup>, J. Bai<sup>2</sup>, Z. Zou<sup>3</sup>, W. Wu<sup>3</sup>, Q. Liu<sup>3</sup>, L. Ren<sup>1</sup> (1. China University of Petroleum (East China); 2. AspenTech; 3. Bureau of Geophysical Prospecting Inc., CNPC) Speaker: Wenhao Lv
- 11:35 AM...**qP- and qS-waves decoupling equations for elastic reverse time migration of ocean bottom node data:** L. Ren<sup>1</sup>, Q. Du<sup>1</sup>, L. Wenhao<sup>1</sup>, Q. Li<sup>1</sup>, T. Moser<sup>2</sup> (1. China University of Petroleum (East China); 2. Moser Geophysical Services) Speaker: Lina Ren

## SS 33 SEPM Research Symposium: Mixed Turbidite-Contourite Reservoirs 2

Session Chairs: Rick Beaubouef and Stan Stanbrook

Location: 351A

- 10:20 AM...**3D seismic stratigraphy and tectonic controls on contourite and turbidite sedimentation along the deepwater margin of Uruguay:** J. Miller, P. Mann (University of Houston) Speaker: Joshua M Miller
- 10:45 AM...**Large levees on the Danube Fan, Black Sea, slope are the source of contourite mud:** H. Feldman<sup>1</sup>, E. Leroux<sup>2</sup>, B. Dennielou<sup>2</sup>, G. Lericolais<sup>2</sup>, S. Ker<sup>2</sup> (1. Colorado State University; 2. Ifremer) Speaker: Howard Feldman
- 11:10 AM...**Bottom-current sediment waves and mass-wasting controls over hydrocarbon entrapment in a distally steepened ramp, Fort Payne Formation (Lower Mississippian, Osagean), NE Tennessee: Using outcrops, logs, and modern oceanography to develop new hypotheses:** C. R. Handford (Independent) Speaker: C. Handford
- 11:35 AM...**Process Based Stratigraphic Architecture of a Mixed Turbidite: Bottom Current System, Sinu Basin, Offshore Colombia, SW Caribbean:** N. Auchter<sup>2</sup>, N. Khan<sup>1</sup>, D. Reed<sup>2</sup>, P. Desjardins<sup>2</sup>, A. Parent<sup>2</sup> (1. Shell Trinidad and Tobago; 2. Shell Exploration and Production Company) Speaker: Neal Auchter

## SS 34 Natural Source Electromagnetic for Mining 2

Session Chairs: Randall Mackie and Hannah Peterson

Location: 372C

- 10:20 AM...**Mineral exploration with natural-source EM: Comparing ground and airborne methods:** A. Jones<sup>1</sup>, R. Mackie<sup>2</sup> (1. ManoTick GeoSolutions; 2. Viridien) Speaker: Alan Jones
- 10:45 AM...**Magnetotelluric imaging for direct detection of mineralization: Opportunities and challenges:** B. S. Murphy, J. Spratt, T. Hoskin, S. Evans (Moombarriga Geoscience) Speaker: Benjamin Murphy
- 11:10 AM...**Land MT instrumentation and acquisition, and where we think it may be going over the next decade:** R. Sharpe (Quantec Geoscience) Speaker: Roger Sharpe
- 11:35 AM...**Discussion**

## TL 3 Analysis using Machine Learning 2

Session Chairs: Kanglin Wang and Martin Widmaier

Location: 360A

- 10:20 AM...**Multi-resolution reservoir parameter estimation using Haar wavelet transforms and deep learning: A double-compression approach:** A. M. Ahmed, J. C. Shragge, I. Tsvankin (Colorado School of Mines) Speaker: Ahmed Ahmed
- 10:45 AM...**Labeling CO<sub>2</sub> Plumes via Deep Learning:** S. Gao, S. Fomel, Y. Chen (University of Texas at Austin) Speaker: Shuang Gao
- 11:10 AM...**Symmetric Autoencoder for Seismic Acquisition Repeatability in 4D CO<sub>2</sub> Monitoring:** M. Sarrouilhe<sup>2</sup>, H. Barucq<sup>2</sup>, S. Frambati<sup>1</sup>, M. Araya-Polo<sup>1</sup> (1. TotalEnergies; 2. INRIA) Speaker: Mauricio Araya-Polo
- 11:35 AM...**Application of seismic modelling and deep neural network for 4D seismic inversion:** T. Yusubova, K. Matrosov, R. Malikov, I. Shahsenov (WAVERITY) Speaker: Tatyana Yusubova

## USC 5 Studies of Geologic and Geophysical Processes: Gulf of Mexico 2

Session Chairs: Anurag Pandey and Jara Schnyder

Location: 362B

- 10:20 AM...**Giant submarine fans in a Greenhouse world: The Paleogene Wilcox Group of the Northern Gulf of Mexico:** M. Sweet (The University of Texas) Speaker: Michael Sweet
- 10:45 AM...**New insights on the role of low-velocity shales in subsalt Paleogene exploration in the deepwater Gulf of Mexico:** D. Carruthers, C. Watkins, S. Ji, Z. Yang (Viridien) Speaker: Daniel Carruthers
- 11:10 AM...**Important stratigraphic elements in middle to late Miocene deepwater Gulf of Mexico fields from Mississippi Canyon to Green Canyon – Marmalard, Galapagos, Kepler, La Femme, Ariel, Son of Bluto<sup>2</sup>, Khaleesi, Mormont:** C. C. Strong (Red Willow Production Co.) Speaker: Catherine Strong
- 11:35 AM...**Reservoir characterization and assessment for carbon storage potentials in offshore Matagorda Island, South Texas:** Y. O. Azeez<sup>1</sup>, M. Abdrabou<sup>1</sup>, H. Ebaid<sup>2</sup>, H. Elattar<sup>3</sup>, I. Pecher<sup>1</sup> (1. Texas A&M University-Corpus Christi; 2. Texas A&M University, College Station; 3. University of Leeds) Speaker: Yusuf Azeez



## Thursday, 28 August

### ACQ 5 Time Lapse and 4D Acquisition

*Session Chairs: Christian Strand and Malcolm White*

**Location: 361B**

- 1:20 PM.....**Parameterization and feasibility of the 4D-Focused test in the Buzios OBN Monitor acquisition:** F. Vidal, J. Borba, C. Climaco, M. Grochau, M. Costa (Petrobras) Speaker: Felipe Vidal
- 1:45 PM.....**Planning and executing a 4D baseline OBN seismic survey in the Gulf of Mexico in adverse conditions:** D. Hite<sup>1</sup>, B. Tredrea<sup>2</sup>, G. Winfield<sup>3</sup> (1. ACTeQ LLC; 2. Murphy Exploration & Production; 3. PXGeo) Speaker: Damian Hite
- 2:10 PM.....**Atlantis - one 3D baseline and five monitor deepwater OBN surveys, but is it really 4D?:** J. Naranjo<sup>1</sup>, M. Pfister<sup>1</sup>, G. Costa<sup>1</sup>, G. Alexander<sup>1</sup>, F. Billeste<sup>1</sup>, I. Dootson<sup>1</sup>, W. McGee<sup>1</sup>, B. Slopey<sup>2</sup>, P. Freitas<sup>3</sup> (1. bp; 2. bp, Retired; 3. TGS) Speaker: John Naranjo
- 2:35 PM.....**Field trial of a sparse and automated seismic acquisition system with permanent anchored vibratory sources:** S. Li<sup>1</sup>, T. Chen<sup>1</sup>, X. Fang<sup>1</sup>, M. Lee<sup>2</sup>, H. Wilkinson<sup>3</sup> (1. SensorEra; 2. California Resources Corporation; 3. Green Power USA) Speaker: Siwei Li

### AP 3 China Case Studies and Technology 3

*Session Chairs: Feng Deng and William Dickson*

**Location: 351B**

- 1:20 PM.....**WITHDRAWN**
- 1:45 PM.....**Quantitative analysis of the Source-to-Sink System: A case study from the Paleogene in the Southern Bohai Bay Basin:** C. Zhang (Yangtze University) Speaker: Chengcheng Zhang
- 2:10 PM.....**New insights in the late Triassic formation in Sichuan gas province: Results from shallow to deep drilling and possibility of finding oil:** B. Zheng<sup>2</sup>, J. Kang<sup>2</sup>, J. Cao<sup>2</sup>, G. Yang<sup>2</sup>, Z. Zhao<sup>2</sup>, S. Wu<sup>1</sup> (1. Power Energy and Environmental Research Institute; 2. Chengdu Center, China Geological Survey (Geosciences Innovation Center of Southwest China) Speaker: Sheng Wu
- 2:35 PM.....**Discussion**

### CO<sub>2</sub> 3 Modeling

*Session Chairs: Kristen Busse and Darlene Zybal*

**Location: 362A**

- 1:20 PM.....**Predicting CO<sub>2</sub> Storage and Enhanced Gas Recovery (CSEGR) Performance under Uncertainty using Ensemble-Based Reservoir Heterogeneity Modeling:** D. Elhossary, M. Pyrcz, K. Mohanty (The University of Texas at Austin) Speaker: Deena Elhossary
- 1:45 PM.....**Evaluating the area of review and CO<sub>2</sub> phase partitioning in saline aquifers using probabilistic methods:** U. D. Orivri, R. Pollyea (Virginia Polytechnic Institute and State University) Speaker: Uzezi Orivri
- 2:10 PM.....**Impact of depositional heterogeneity on the prediction of CO<sub>2</sub> plume arrival and injection rate: A geological recharacterization of the Parratte Fm (Parasequence 2), Australia (Otway Stage 4 CCS pilot project):** N. Pearson, I. Barranco (Chevron) Speaker: Nadine Pearson
- 2:35 PM.....**Developing CO<sub>2</sub> storage hub scenarios on the offshore East Coast from site-selection to 3D modeling:** S. Skopec<sup>1</sup>, B. Petras<sup>1</sup>, R. L. Hunt<sup>1</sup>, J. Hershberger<sup>1</sup>, J. Sminchak<sup>1</sup>, N.

Gupta<sup>1</sup>, W. J. Schmelz<sup>2</sup>, K. G. Miller<sup>2</sup> (1. Battelle; 2. Rutgers University) Speaker: Stuart Skopec

### FWI 11 Machine Learning 4

*Session Chairs: Yanhua Liu and Serge Sambolian*

**Location: 370A**

- 1:20 PM.....**Self-supervised active learning for the inversion of geophysical data:** D. Colombo, E. Turkoglu, E. Sandoval Curiel (Saudi Aramco) Speaker: Daniele Colombo
- 1:45 PM.....**Accelerating the convergence of implicit FWI and LSRTM with a field data application:** S. Wang, T. Alkhalifah (KAUST) Speaker: Shaowen Wang
- 2:10 PM.....**Self-supervised learning with cross-training between CNN and transformer for low-frequency enhancements:** H. Tang, C. Hu, X. Cheng (SLB) Speaker: Hengyu Tang
- 2:35 PM.....**Active learning Bayesian inference: Application to near surface full waveform inversion:** R. Feng<sup>2</sup>, D. Colombo<sup>1</sup>, E. Turkoglu<sup>1</sup>, E. Sandoval Curiel<sup>1</sup>, T. Y. Alyousuf<sup>3</sup> (1. Saudi Aramco; 2. Aramco Asia; 3. Colorado School of Mines) Speaker: Daniele Colombo

### INT 3 Interpretation Methods 2

*Session Chairs: Danping Cao and Altay Sansal*

**Location: 371A**

- 1:20 PM.....**Facies and reservoir rocks at Cambrian inner platform (Sichuan Basin) and platform margin (Tarim Basin): Evidences from 3D seismic data:** W. Zhao<sup>1</sup>, W. Liu<sup>1</sup>, C. Bian<sup>1</sup>, S. Hu<sup>1</sup>, H. Zeng<sup>2</sup>, Z. Xu<sup>1</sup> (1. Research Institute of Petroleum Exploration and Development, PetroChina; 2. The University of Texas at Austin) Speaker: Wenzhi Zhao
- 1:45 PM.....**The Application of Seismic Wave Phase Decomposition and Reconstruction Method for the Fault-Controlled Fractured-Cavity Reservoirs in Tarim Basin:** S. Chang<sup>1</sup>, M. Wang<sup>1</sup>, J. Chen<sup>1</sup>, K. Ji<sup>2</sup> (1. Petrochina Hangzhou Research Institute of Geology; 2. University of Tulsa) Speaker: Shaoying Chang
- 2:10 PM.....**Deriving a variable matrix density log for shaly sands:** F. J. Angel-Saez, L. A. Hathon, M. Myers (University of Houston) Speaker: Franklyn Angel-Saez
- 2:35 PM.....**Automatic 3D seismic interpretation of horizons and sequence boundaries guided by seismic flowlines:** D. Adelved<sup>1</sup>, J. Lie<sup>2</sup>, A. J. Bugge<sup>2</sup> (1. University of Oslo and Geomind; 2. Aker BP) Speaker: Dennis Adelved

### IPS 3 Induced Seismicity: Fault Monitoring 2

*Session Chairs: Joel Le Calvez and Fabian Pena*

**Location: 362C**

- 1:20 PM.....**Induced Seismicity Interaction Between Hydraulic Fracturing and Saltwater Disposal:** S. Maxwell, S. Doss (Ovintiv) Speaker: Shawn Maxwell
- 1:45 PM.....**Induced Seismicity Analysis for Pressure Geothermal: Test Case in Atascosa County, Texas:** M. Eros<sup>1</sup>, A. Savvaidis<sup>2</sup> (1. Sage Geosystems; 2. The University of Texas at Austin) Speaker: Mike Eros
- 2:10 PM.....**Microseismic monitoring using a temporary seismic array in Pawnee, Oklahoma:** J. Woo<sup>1</sup>, T. Chen<sup>1</sup>, X. Chen<sup>2</sup> (1. Los Alamos National Laboratory; 2. Texas A&M University) Speaker: Jeongung Woo
- 2:35 PM.....**The Value of Hybrid Seismic Monitoring in Subsurface Injection Operations:** M. Braim<sup>1</sup>, Z. Esmaeilzadeh<sup>1</sup>, B.



# Oral Sessions

Thursday, 28 August

Waggott<sup>1</sup>, N. Fleegal<sup>2</sup> (1. ESG Solutions; 2. ESG Solutions (Non-Author)) Speaker: Nicholas Fleegal

## MME 1 Mineral Prospectivity Mapping and Data Processing

*Chairs: Rama Chandrudu Arasada and Zhuo Liu*

**Location: 362B**

- 1:20 PM.....**Data fusion for identifying thermal alteration zones using geophysical and remote sensing data:** T. Y. Alyousuf, S. Hossain (Saudi Aramco) Speaker: Taqi Alyousuf
- 1:45 PM.....**Formulating gold prospectivity mapping as a constrained learning problem:** F. A. Jackson, P. Wozniakowska, O. Greif, B. Peters, M. McMillan, E. Haber (Computational Geosciences Inc) Speaker: Frederick Jackson
- 2:10 PM.....**Vision Transformer Networks for airborne IP removal:** J. Kuttai<sup>2</sup>, P. Wozniakowska<sup>2</sup>, M. McMillan<sup>3</sup>, E. Haber<sup>1</sup>, B. Peters<sup>2</sup> (1. University of British Columbia; 2. Computational Geosciences Inc.; 3. Invert Geophysics) Speaker: Johnathan Kuttai
- 2:35 PM.....**A field trial of airborne gravity gradiometry and magnetic survey using ergodic sampling:** M. Zhang<sup>1</sup>, B. Howe<sup>2</sup>, S. Devriese<sup>2</sup> (1. Colorado School of Mines; 2. Teck Resources Ltd) Speaker: Mengli Zhang

## NEF 1 Characterization of Natural Hydrogen Reservoir

*Session Chairs: Shuvajit Bhattacharya and Akshika Rohatgi*

**Location: 351A**

- 1:20 PM.....**Characterization and detection of natural hydrogen reservoirs: Integrated capillary, diffusion, and seismic modeling approaches:** Y. Mathur<sup>1</sup>, R. Hofmann<sup>2</sup>, N. Saxena<sup>2</sup> (1. Stanford University; 2. Shell) Speaker: Yashee Mathur
- 1:45 PM.....**Hydrogen Storage Potential of Salado Formation in the Permian Basin of West Texas:** L. Ruiz Maraggi, A. Martinez-Donate, L. Melani, L. G. Moscardelli (Bureau of Economic Geology, The University of Texas at Austin) Speaker: Leopoldo Matias Ruiz Maraggi
- 2:10 PM.....**Geophysical responses of stimulated hydrogen production in ultramafic rocks:** J. Capriotti, N. Perkovich, M. Zhang, Y. Li (Colorado School of Mines) Speaker: Joseph Capriotti
- 2:35 PM.....**Seismic-H2: Seismic modeling framework for underground hydrogen storage:** N. Creasy<sup>1</sup>, S. Mao<sup>1</sup>, M. Mehana<sup>1</sup>, M. Malki<sup>2</sup>, Y. Huang<sup>1</sup>, J. Parsons<sup>3</sup>, D. Li<sup>1</sup>, A. Indro<sup>1</sup>, J. Cull-Host<sup>1</sup>, K. Gao<sup>1</sup> (1. Los Alamos National Lab; 2. University of Wyoming; 3. University of Houston) Speaker: Neala Creasy

## RP 5 Recent Advancements

*Session Chairs: Tanim Dutta and Mark Kittridge*

**Location: 371B**

- 1:20 PM.....**Wave dispersion and attenuation in double-porosity media containing wedge-shaped cracks:** J. Li, Z. Zong, F. Chen, Q. Meng, J. Yang, Y. Shen (China University of Petroleum (East China)) Speaker: Jiayun Li
- 1:45 PM.....**Wave equation for non-Darcy flow in tight porous media considering threshold pressure gradient:** B. Wu, J. Gao (Xi'an Jiaotong University) Speaker: Baohai Wu
- 2:10 PM.....**The soil mechanical snap fastener: Rock physical modelling of local stress during loading and unloading of smectitic clays:** I. L. Fabricius (DTU) Speaker: Ida Fabricius

## SMT 2 Seismic Imaging: Novel Approaches

*Session Chairs: Partha Routh and Yi Shen*

**Location: 361A**

- 1:20 PM.....**Elastic wave stratigraphic imaging method for impedance relative perturbation:** R. Dou, S. Chen (Zhejiang University) Speaker: Ruxun Dou
- 1:45 PM.....**Accelerating Upside-down Rayleigh-Marchenko imaging using Self-Supervised learning:** N. Wang<sup>1</sup>, M. Ravasi<sup>2</sup>, T. Alkhalifah<sup>1</sup> (1. King Abdullah University of Science and Technology; 2. Shearwater GeoServices) Speaker: Ning Wang
- 2:10 PM.....**Fourier series imaging condition: RTM angle gathers with elastic and beyond-elastic imaging conditions, and prospect of beyond-elastic FWI:** Z. Feng, X. Cheng, D. Vigh (SLB) Speaker: Zongcai Feng
- 2:35 PM.....**Effective viscoacoustic reverse time migration with Q-compensation using finite-difference operators:** Q. Mao, Y. Shen, J. Huang (China University of Petroleum (East China)) Speaker: Qiang Mao

## SP 12 Machine Learning Priors, Projection and Attribute Prediction

*Session Chairs: Shijun Cheng and Anusha Sekar*

**Location: 372A**

- 1:20 PM.....**Incorporating the Multiscale Fourier Transform, Principal Components, and Significance Measures in Seismic Prediction of Rock Properties:** V. Kronberg<sup>2</sup>, J. Castagna<sup>1</sup>, G. Gil<sup>2</sup>, S. Chen<sup>3</sup>, R. Jiang<sup>4</sup> (1. University of Houston; 2. Lumina Geophysical; 3. PetroChina; 4. Carrie Energy Group Ltd) Speaker: Vi Kronberg
- 1:45 PM.....**What is our a priori information? Generating representative earth models for ML training:** M. Roberts (TGS) Speaker: Mark Roberts
- 2:10 PM.....**2D-to-3D seismic image conversion using hybrid interpolation with geological priors:** C. Li, T. Zhao, F. Xavier De Melo, R. Ysaccis, W. Hu (SLB) Speaker: Tao Zhao
- 2:35 PM.....**Line SAM: A line-based prompting for seismic foundation models:** M. T. Alotaibi, M. Prabhushankar, G. AlRegib (Georgia Institute of Technology) Speaker: Mohammad Alotaibi

## SP 13 Case Studies on Node Data

*Session Chairs: Inma Dura-Gomez and Shouting Huang*

**Location: 372B**

- 1:20 PM.....**Exploration challenges and data processing solutions on nodal data from the loess tableland:** R. Gao, C. Xu (Sinopec) Speaker: Rongtao Gao
- 1:45 PM.....**Processing on-the-edge applied to Ukraine's first nodal seismic survey:** C. Giersz<sup>1</sup>, G. Barnes<sup>1</sup>, E. Murray<sup>1</sup>, A. Ourabah<sup>1</sup>, C. Rudling<sup>2</sup>, Y. Solodkyi<sup>3</sup>, Y. Renkas<sup>3</sup> (1. STRYDE; 2. TetraTechRPS; 3. DTEK Oil&Gas) Speaker: Celina Giersz
- 2:10 PM.....**Enhancing seismic imaging in the Colombian Eastern Foothills: A modified Joint Reflection-Refraction tomography approach:** F. A. Vivas<sup>1</sup>, S. A. Velasco<sup>2</sup>, J. D. Basto<sup>3</sup>, D. Rodriguez<sup>4</sup> (1. Ecopetrol S.A.; 2. Aspentech; 3. TIP CISLAB; 4. Professional) Speaker: Flor Vivas
- 2:35 PM.....**A case study of TORT Q imaging of OBN data in a highly faulted area:** D. Ding, T. Li, P. Zhang, J. Huang, Y. Wang,





## Thursday, 28 August

L. Tian, J. Yan, J. Guo, T. Zeng, J. Guo, L. Xie (BGP, CNPC)  
Speaker: Zaiyu Ding

### SS 35 Abandoned Mine Lands

*Session Chairs: Salman Abbasi and Julian Ivanov*

**Location: 372C**

1:20 PM.....**Nonintrusive 3D Geophysical Imaging of Abandoned Mine Lands:** E. Clyne, M. Mirzanejad, L. Steele, W. Levandowski (Tetra Tech) Speaker: Elisabeth Clyne

1:45 PM.....**Time-lapse VSP monitoring of legacy solution mining caverns in Hutchinson, Kansas:** S. L. Peterie, R. D. Miller, M. Tamburro, J. Ivanov (Kansas Geological Survey) Speaker: Shelby Peterie

2:10 PM.....**High resolution seismic reflection to delineate collapse in a 225 m deep room and pillar salt mine resulting in sinkholes in Rice County, Kansas:** R. D. Miller (Kansas Geological Survey) Speaker: Richard Miller

### TL 4 Case Studies 2

*Session Chairs: Christian Theriot and Bram Willemsen*

**Location: 360A**

1:20 PM.....**Maximize the value of 4D seismic from non-repeatable surveys: A case study of OBN-on-streamer 4D processing to enable the seafloor transition at Liza, offshore Guyana:** Y. Tang<sup>1</sup>, F. Lin<sup>1</sup>, V. Gudipati<sup>1</sup>, R. Bansal<sup>1</sup>, M. Helgerud<sup>1</sup>, D. Chu<sup>1</sup>, M. Sengupta<sup>1</sup>, P. Singh<sup>1</sup>, K. A. Wagnvelt<sup>1</sup>, W. Burnett<sup>1</sup>, C. Schiott<sup>2</sup>, J. Zhou<sup>3</sup>, Z. Wang<sup>4</sup>, Y. Huang<sup>4</sup>, S. Mothi<sup>4</sup> (1. ExxonMobil; 2. Hess; 3. CNOOC; 4. Viridien) Speaker: Yaxun Tang

1:45 PM.....**Campos Basin 4D study: A Case Study Integrating Conventional Hydrophone and Multisensor Towed Streamer for monitoring the Albacora Leste field:** D. Lecerf<sup>1</sup>, G. Jangelme<sup>1</sup>, v. oliveira<sup>1</sup>, r. melo<sup>1</sup>, J. BURREN<sup>1</sup>, r. ferro<sup>2</sup>, A. G. da Silva<sup>2</sup>, p. r. coelho<sup>2</sup>, M. G. Martins<sup>2</sup>, i. Neves<sup>2</sup> (1. TGS; 2. PRIO) Speaker: Didier Lecerf

2:10 PM.....**Maximizing the value of the first time-lapse OBN data at Liza field with co-processing:** J. Yang<sup>1</sup>, Y. Huang<sup>1</sup>, Y. Han<sup>1</sup>, L. Ren<sup>1</sup>, S. Mothi<sup>1</sup>, Y. Tang<sup>2</sup>, F. Lin<sup>2</sup>, V. Gudipati<sup>2</sup>, R. Bansal<sup>2</sup>, C. Schiott<sup>3</sup>, J. Zhou<sup>4</sup> (1. Viridien; 2. ExxonMobil; 3. Hess; 4. CNOOC) Speaker: Joy Yang

2:35 PM.....**Enhanced 4D seismic outcomes through true 4D processing – Usan field:** I. Samanta<sup>1</sup>, D. Davies<sup>1</sup>, I. Novianti<sup>1</sup>, F. Elebe<sup>1</sup>, D. Chu<sup>2</sup>, M. Helgerud<sup>2</sup>, A. S. Adegba<sup>2</sup>, A. Olatunbosun<sup>2</sup>, j. jaiyeola<sup>3</sup> (1. TGS; 2. ExxonMobil; 3. NNPC) Speaker: Indranil Samanta

### AP 4 China Case Studies and Technology 4

*Session Chairs: Vicki Amir and Yitian Xiao*

**Location: 351B**

3:10 PM.....**Development of Tight Ultra-Thin Interbedded Sandstone Reservoir, Lijing block, Shengli Field, China:** Q. Su<sup>2</sup>, A. Zhong<sup>2</sup>, I. Liu<sup>2</sup>, N. Wang<sup>3</sup>, S. Wu<sup>1</sup> (1. Power Energy and Environmental Research Institute; 2. Sinopec; 3. Shanghai Research Institute, Sinopec Lubricant Co., LTD.) Speaker: Sheng Wu

3:35 PM.....**Coal-rock Gas: A Novel Unconventional Natural Gas Resource:** G. Li, Q. Zhao, T. Zhou, Z. Liu (PetroChina Research Institute of Petroleum Exploration and Development) Speaker: Zhaolong Liu

4:00 PM.....**Advances in Lacustrine Shale Oil Exploration and Development: Theoretical and Technological Progress in Eastern China Rift Basin:** G. Xusheng, B. Shen (Sinopec Petroleum Exploration and Production Research Institute) Speaker: Guo Xusheng

4:25 PM.....**Mechanism of Coal-rock Gas Development and Production Characteristics of Horizontal Wells:** Q. Zhao, X. Zhang, M. Wang, T. Zhou, Z. Liu (PetroChina Research Institute of Petroleum Exploration and Development) Speaker: Qun Zhao

### CO<sub>2</sub> 4 Screening

*Session Chairs: Liz Lee and Carlos Uroza*

**Location: 362A**

3:10 PM.....**Quantifying CO<sub>2</sub> Plume Height Limits of Regional Seals Using Oil and Gas Field Data: Examples from the Paleogene of the North Sea:** R. Jonk<sup>1</sup>, N. Price<sup>2</sup>, M. Brettle<sup>2</sup> (1. ACT-Geo Ltd.; 2. University of Aberdeen) Speaker: Rene Jonk

3:35 PM.....**Developments to enable rapid sub-fairway scale screening for carbon storage opportunities:** A. Uren (Halliburton) Speaker: Ashley Uren

4:00 PM.....**The Mari-B Mound Complex: A Potential CO<sub>2</sub> Storage Site in the Levant Basin, Mediterranean Sea:** O. O. Makinde (University of Haifa) Speaker: Oluwapelumi Makinde

4:25 PM.....**CCS optimization for Southeast Asian electricity grid:** A. Lytle, Y. Li, J. Qin (Purdue University) Speaker: Alexandra Lytle

### FWI 12 Land, Marine Streamer, and OBS

*Session Chairs: Milad Bader and Jaime Ramos-Martinez*

**Location: 370A**

3:10 PM.....**MP-FWI imaging in the Gulf of Paria, Trinidad and Tobago:** M. F. Hartmann, C. Asher (DUG Technology) Speaker: Monica Hartmann

3:35 PM.....**The value of streamer data in complementing a sparse OBN survey for elastic FWI imaging:** C. D. Cantu Bendeck<sup>2</sup>, A. Gomes Dos Santos<sup>2</sup>, D. Rocha<sup>2</sup>, K. Matson<sup>2</sup>, I. Atakishiyev<sup>2</sup>, Y. Yang<sup>2</sup>, C. Perez Solano<sup>2</sup>, M. Koop<sup>2</sup>, G. Madiba<sup>1</sup> (1. Shell; 2. Shell International) Speaker: Cesar Cantu Bendeck

4:00 PM.....**Multi-parameter FWI imaging in the Llanos Basin, onshore Colombia:** M. Phillips<sup>1</sup>, J. McLeman<sup>1</sup>, M. Varner<sup>1</sup>, M. Perez<sup>2</sup>, D. Brost<sup>3</sup> (1. DUG; 2. Parex Resources; 3. Parex Resources) Speaker: Mason Phillips

4:25 PM.....**From compressive sensing reconstruction to full-waveform-derived reflectivity: A strategy for onshore high-resolution near-surface characterization:** M. S. Sheneshen<sup>1</sup>, A. Abdullah<sup>1</sup>, T. M. Albader<sup>1</sup>, A. Glushchenko<sup>1</sup>, G. Busanello<sup>1</sup>, P. Bilsby<sup>1</sup>, A. H. El-Emam<sup>2</sup>, M. J. Ali<sup>2</sup>, h. M. Bayri<sup>2</sup> (1. SLB; 2. Kuwait Oil Company) Speaker: Gabriele Busanello

# Oral Sessions

Thursday, 28 August

## IPS 4 Induced Seismicity and New Energies

Session Chairs: Ting Chen and Daniel Hollis

Location: 362C

- 3:10 PM.....**Locating Geothermal-induced Microearthquakes using DAS and Machine Learning: Application to UTAH FORGE 2022 Stimulation:** P. Yu, T. Zhu, C. Marone, D. Elsworth (Penn State) Speaker: Tiejuan Zhu
- 3:35 PM.....**Bayesian inversion of microseismic events at the FORGE Geothermal site:** Y. Song, S. Yuan, E. Martin (Colorado School of Mines) Speaker: Yida Song
- 4:00 PM.....**VSNet: Deep-learning inversion of velocity structures and source locations with passive seismic data:** H. Sun (The University of Texas at El Paso) Speaker: Hongyu Sun
- 4:25 PM.....**Seismic Source Parameters of a Geothermal Stimulation:** A. M. Baig<sup>1</sup>, M. Lambert<sup>1</sup>, Y. Geng<sup>1</sup>, S. Karimi<sup>1</sup>, H. Mandler<sup>1</sup>, S. Dadi<sup>2</sup> (1. Nanometrics; 2. Fervo Energy) Speaker: Adam Baig

## MME 2 Modeling and Drilling for Mineral Exploration

Session Chairs: Jose Arce and Marco Couto

Location: 362B

- 3:10 PM.....**The International Continental Drilling Program (ICDP) Bushveld Drilling Project (BVDP): New insights into the formation of the deepest part of the Bushveld Complex:** S. J. Webb, T. Pillay (University of the Witwatersrand) Speaker: Susan Webb
- 3:35 PM.....**Optimizing drilling Plans for Porphyry Copper Deposits Using Sequential Efficacy of Information and ambient noise tomography:** P. Li<sup>1</sup>, J. Muir<sup>2</sup>, Z. Yin<sup>1</sup>, G. Olivier<sup>2</sup>, J. Caers<sup>1</sup> (1. Stanford University; 2. Fleet Space Technologies) Speaker: Peng Li
- 4:00 PM.....**Inverting for arbitrarily shaped targets using parameterized radial basis functions:** P. Pokar, L. Heagy (University of British Columbia) Speaker: Parth Pokar
- 4:25 PM.....**Leveraging geological data to construct training models for supervised deep learning inversion:** X. Wei<sup>1</sup>, J. Sun<sup>2</sup>, J. Dong<sup>4</sup>, R. Guo<sup>3</sup> (1. University of British Columbia; 2. University of Houston; 3. Tsinghua University; 4. China University of Geosciences) Speaker: Xiaolong Wei

## NEF 2 Geothermal and Critical Minerals

Session Chairs: Joshua Osasona and Sihong Wu

Location: 351A

- 3:10 PM.....**Geothermal well testing pressure prediction by using a hybrid transformer model system: FORGE well use case:** H. Yang<sup>1</sup>, J. Chen<sup>1</sup>, G. Liu<sup>2</sup>, C. Chen<sup>1</sup>, M. Sidahmed<sup>1</sup>, A. Challen<sup>1</sup>, B. Palmer<sup>1</sup>, M. Mark-Moser<sup>2</sup> (1. Shell; 2. National Energy Technology Laboratory) Speaker: Huihui Yang
- 3:35 PM.....**Locating Volcanic Facies to Find Critical Minerals Through the Lens of Seismic Attributes and Machine Learning:** D. Mansourian, D. Lubo-Robles, H. Bedle (University of Oklahoma) Speaker: Danial Mansourian
- 4:00 PM.....**Feasibility of Heat Production from Salt Domes using Next-Generation Geothermal Technologies: What has not worked and what can work?:** S. Liu, S. Bhattacharya (The University of Texas at Austin) Speaker: Shuvajit Bhattacharya
- 4:25 PM.....**Potential poroelastic coupling between the Geysers geothermal production and seismicity/creep distribution over the Maacama Fault and northern Rodgers Creek Fault:**

J. Tung<sup>1</sup>, M. Shirzaei<sup>2</sup> (1. Texas Tech University; 2. Virginia Tech) Speaker: Jay Sui Tung

## NS 3 Void Detection in Near Surface Geophysics

Session Chairs: Yusuke Kawasaki and Cathy Truffert

Location: 372C

- 3:10 PM.....**High-Resolution 3D GPR Imaging of Burrow Networks in Sedimentary Strata:** S. Hanafy, O. M. Abdeltwab, H. Eltom, A. Al-Lehyani (KFUPM) Speaker: Sherif Hanafy
- 3:35 PM.....**Near-surface seismic surface wave attenuation for void detection:** J. Ivanov<sup>1</sup>, S. L. Peterie<sup>1</sup>, D. Borisov<sup>1</sup>, A. Hoch<sup>1</sup>, S. Abbasi<sup>1</sup>, R. Miller<sup>1</sup>, S. Sloan<sup>2</sup>, Y. Zhang<sup>1</sup> (1. Kansas Geological Survey; 2. US Army Engineer Research & Development Center) Speaker: Julian Ivanov
- 4:00 PM.....**Muon Tomography for Density Reconciliation at Rio Tinto Kennecott's Bingham Canyon Mine:** N. Phillips<sup>1</sup>, D. Schouten<sup>1</sup>, J. Ellis<sup>2</sup>, M. Paine<sup>2</sup> (1. Ideon Technologies; 2. Rio Tinto) Speaker: Nigel Phillips
- 4:25 PM.....**Leaky Surface Waves from Distributed Acoustic Sensing: Signals for Mapping Urban Karst Hazards:** Z. Wang, T. Zhu (Penn State) Speaker: Tiejuan Zhu

## RP 6 Machine Learning Application

Session Chairs: Tanim Dutta and Ida Fabricius

Location: 371B

- 3:10 PM.....**Uncertainty quantification in rock type classification using a copula of metalog marginals:** V. L. De Mello, K. Spikes (The University of Texas at Austin) Speaker: Vitor De Mello
- 3:35 PM.....**Direct prediction of pore volume fractions from elastic and porosity-logs by integrating a Machine Learning framework (Light-Gradient-Boosting-Machine) and DEM model:** R. M. Joshi<sup>1</sup>, A. Kumar<sup>2</sup>, K. H. Singh<sup>2</sup> (1. OIL; 2. IIT Bombay) Speaker: Ritesh Joshi
- 4:00 PM.....**Sensitivity-aware rock physics enhanced digital shadow for underground-energy storage monitoring:** A. Gahlot, H. Erdinc, F. J. Herrmann (Georgia Institute of Technology) Speaker: Abhinav Prakash Gahlot
- 4:25 PM.....**Optimized rock-physics templates (RPTs) vs. machine learning (ML): A comparative approach for sweet spot delineation in shale gas reservoirs:** N. Davy<sup>1</sup>, A. El-Husseiny<sup>1</sup>, M. Fawad<sup>1</sup>, U. Waheed<sup>1</sup>, K. Ayranci<sup>1</sup>, N. B. Harris<sup>2</sup> (1. King Fahd University of Petroleum and Minerals (KFUPM); 2. Faculty of Science, University of Alberta) Speaker: Nandito Davy

## SMT 3 Seismic Inversion

Session Chairs: Gokay Bozkurt and Fuchun Gao

Location: 361A

- 3:10 PM.....**An Application of Joint First-Break and Reflection Traveltime Tomography in the Complex Mountainous Area of Western China:** X. Wan, H. Huang, W. Luo, D. Li, T. Gong, Y. Chen (BGP ,CNPC) Speaker: Xuejuan Wan
- 3:35 PM.....**Derivation and computation of full Hessian kernels in acoustic VTI media:** Y. Xie, M. Sen (University of Texas at Austin) Speaker: Yujiang Xie
- 4:00 PM.....**Seismic tomography on a real or simulated Ising computer:** K. Innanen (University of Calgary) Speaker: Kristopher Innanen



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## Thursday, 28 August

### SP 14 Machine Learning Applications 2

*Session Chairs: Thomas Cullison and JuanPaulo Tellez*

**Location: 372A**

- 3:10 PM.....**Toward generalizable elastic wave separation: A physics-informed conditional diffusion approach:** S. Cheng, X. Mu, T. Alkhalifah (King Abdullah University of Science and Technology) Speaker: Shijun Cheng
- 3:35 PM.....**Fault-preserving filtering based on U-Net with efficient paired attention:** C. Ke, J. Cui, Y. Luo, L. Li, W. Xiong, C. Xu (BGP, CNPC) Speaker: Chaofan Ke
- 4:00 PM.....**SeisDiff-denoLD: Seismic Denoising for Transformable Coherent Noise via Domain Transformation and Diffusion Models:** D. Zhu, G. Jin (Colorado School of Mines) Speaker: Donglin Zhu
- 4:25 PM.....**First arrival traveltimes picking of real data using MODWT-BiLSTM:** S. Hanafy<sup>1</sup>, A. Bargees<sup>1</sup>, N. Iqbal<sup>1</sup>, C. Tsingas<sup>2</sup>, M. Almubarak<sup>2</sup> (1. King Fahd University of Petroleum and Minerals; 2. Saudi Aramco) Speaker: Sherif Hanafy

### SP 15 Case Studies 3

*Session Chairs: Xiang Li and Lei Zhuo*

**Location: 372B**

- 3:10 PM.....**Anchor field seismic: Pioneering acquisition and imaging technology breakthroughs from discovery to production:** Y. Luo, J. Tan, Y. Wang, A. Cai, J. Chen, Y. Sun, J. Liu, P. Tickle, G. Hennenfent, J. Nealon, Y. Tan, Y. Zhang, M. Fan (Chevron US) Speaker: Yang Luo
- 3:35 PM.....**Awele-3D, an integrated seismic and potential fields study from the Niger Delta:** C. Mitchell<sup>1</sup>, R. Yates<sup>1</sup>, D. Mondal<sup>1</sup>, G. Stock<sup>1</sup>, E. Kay<sup>1</sup>, F. Winter<sup>1</sup>, J. Fruehn<sup>1</sup>, S. Yong<sup>2</sup> (1. TGS; 2. TGS (Non Author)) Speaker: Seet Li Yong

- 4:00 PM.....**Capabilities of microseismic monitoring using robust permanent SADAR arrays:** K. D. Hutchenson (Geospace Technologies) Speaker: Kevin Hutchenson
- 4:25 PM.....**Resolving azimuthal anisotropy in complex structures: An orthorhombic imaging case study from Egypt's Western Desert:** T. S. Mahmoud Ellaithy<sup>1</sup>, N. M. Hasanen<sup>2</sup>, A. Sazykin<sup>2</sup>, M. Baoumy<sup>2</sup>, T. Saleh<sup>2</sup>, A. Zaghloul<sup>2</sup>, A. Elmansoury<sup>2</sup>, A. Menari<sup>2</sup>, O. Zdraveva<sup>2</sup> (1. Cheiron Energy; 2. SLB) Speaker: Tarek Mahmoud Ellaithy

### TL 5 Inversion and Quantitative Interpretation

*Session Chairs: Erick Alvarez and Mariana Gherasim*

**Location: 360A**

- 3:10 PM.....**Enhanced signal recovery in 4D FWI using partial variation regularization:** J. Washbourne, S. Oppert (Chevron) Speaker: John Washbourne
- 3:35 PM.....**Time Lapse P wave Velocity and Attenuation Models of Fracture Opening and Fluid Injection in a Shallow Hydrofracturing and Injection Site:** J. W. Saftner<sup>1</sup>, J. Ajo-Franklin<sup>2</sup>, T. Zhu<sup>1</sup> (1. Pennsylvania State University; 2. Rice University) Speaker: Jackson Saftner
- 4:00 PM.....**Enhancing the weighted-averaged time-lapse full-waveform inversion with lp-norm:** P. D. de Lima<sup>1</sup>, M. G. Gebre<sup>1</sup>, C. Bezerra<sup>1</sup>, M. Ferreira<sup>2</sup>, J. M. Araujo<sup>1</sup> (1. UFRN; 2. Trinity College Dublin) Speaker: Paulo de Lima
- 4:25 PM.....**Joint 4D single-iteration least-squares migration:** F. Rodrigues, G. Brando, D. Albuquerque, C. Oliveira, G. Araujo, B. Huard, R. Pereira, A. Khalil (Viridien) Speaker: Filipe Rodrigues

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# Poster Sessions

Tuesday, 26 August

## AFR P1 Subsurface Interpretation, Modeling and Prediction in West African Basins

8:00 a.m.–9:40 a.m.

*Session Chairs: Melissa Beaman and Abay Veli*

**Location: Poster Location 2 (on the 3rd level)**

- Station A ... **Understanding regional structural and horizon deformation using machine learning: A case study Kwanza Basin, Angola:** D. F. Fernandez, M. Uzcategui-Salazar, G. Menzel-Jones, S. Tewari (SLB) Speaker: Dan Fernandez
- Station B ... **Porosity prediction using Multi-Attribute Regression and Neural Network in ABD Oil Field, Niger Delta, Nigeria:** A. Ibrahim<sup>2</sup>, W. O. Raji<sup>1</sup> (1. University of Ilorin; 2. Federal University Lokoja) Speaker: Wasiu Raji
- Station C ... **Stacking velocity analysis and poro-elastic characterization of overpressure corridor in the Eocene depositional sequence of an onshore field, Greater Ughelli depobelt Niger delta:** E. Benard, T. Gbadamosi, F. Ipoola (Seplat Energy) Speaker: Ebere Benard
- Station D ... **Continent-ocean transition beneath the Niger Delta, West Africa, and implications for its deepwater, hydrocarbon potential:** J. Akinpelu, P. Mann (University of Houston) Speaker: Jumoke Akinpelu

## DMLA P1 Non-Seismic Geophysical Data Analysis

8:00 a.m.–9:40 a.m.

*Session Chairs: Shihang Feng and Yanhua Liu*

**Location: Poster Location 6 (on the 3rd level)**

- Station A ... **Machine learning-based normalization of Thorium in airborne gamma-ray spectrometry for improved anomaly detection:** J. Weihermann, Y. Li, M. Zhang (Colorado School of Mines) Speaker: Jessica Weihermann
- Station B ... **Adaptive inversion of low-field NMR signals based on attention mechanism and Bayesian optimization of regularization parameters:** Y. Cheng, T. LIU (China University of Petroleum, Beijing) Speaker: Yuan Cheng
- Station C ... **Classification of Hydrostratigraphic Units using Self-Organizing Maps and Hierarchical Clustering of Electrical Resistivity and Water Level Data:** O. Emenaha (Norwegian University of Science and Technology) Speaker: Ogonna Emenaha
- Station D ... **Interactive deep learning for mapping channels on sub-bottom profiler data for geohazard studies:** R. Ravindranathan (Fugro USA) Speaker: Ramya Ravindranathan

## DMLA P2 Facies and Reservoir Property Analysis

8:00 a.m.–9:40 a.m.

*Session Chairs: Jose Salazar and Harpreet Sethi*

**Location: Poster Location 7 (on the 3rd level)**

- Station A ... **Hypergraph Framework for Machine Learning in Geological and CCUS Data:** P. Saraswat (Querent AI LLC) Speaker: Puneet Saraswat
- Station B ... **High-Resolution Lithofacies Prediction Using CWT-Enhanced Seismic Attributes and Gradient Boosting: A Case Study from the Lower Goru Formation:** N. Choudhry, A. Ahmad, H. Bedle (University of Oklahoma) Speaker: Noor ul huda Choudhry
- Station C ... **Hybrid Quantum-Classical Neural Network for Binary Classification of Salt Dome Images:** A. Traversa, U. Waheed

(King Fahd University of Petroleum and Minerals) Speaker: Umair Bin Waheed

- Station D ... **A Comparative Analysis of Modern Machine Learning (EMBER) and Traditional Algorithms in Reservoir Property Modeling: Insights from Buzios Field, Brazil:** S. Pedrinha<sup>1</sup>, D. Márquez<sup>2</sup>, J. Navarrete<sup>2</sup> (1. Petrobras (Petróleo Brasileiro S.A.); 2. SLB) Speaker: Saulo Pedrinha

## GM P1 Inversion and Processing in Potential Fields

8:00 a.m.–9:40 a.m.

*Session Chairs: Ahmed Ahmed and Jeffrey Shoffner*

**Location: Poster Location 3 (on the 3rd level)**

- Station A ... **Drone magnetic data processing up in the air and down in the abyss:** G. Marquis<sup>1</sup>, V. Schifano<sup>1</sup>, J. Oehler<sup>2</sup> (1. University of Strasbourg; 2. Shom) Speaker: Guy Marquis
- Station B ... **Sparse inversion of magnetic anomaly magnitude based on non-convex optimization:** D. Zhu, D. Cao, K. Xu (China University of Petroleum (East China)) Speaker: Dan Zhu
- Station C ... **Convolutional neural networks to highlight dikes in Ontario's airborne magnetic data:** R. Pires de Lima, I. Borg, U. Rissetto, M. Pierson (VerAI Discoveries) Speaker: Matthew Pierson
- Station D ... **Simultaneous magnetic and gravity inversion by gradual deformation of non-stationary Gaussian processes:** J. Daza, J. Kloeckner, P. Li, J. Caers, Z. Yin (Stanford University) Speaker: Juan Pablo Daza

## LAC P1 South American Equatorial Margin 1

8:00 a.m.–9:40 a.m.

*Session Chairs: Joniell Borges and Sofia Caylor*

**Location: Poster Location 1 (on the 3rd level)**

- Station A ... **Seismic interpretation of deep-water channels using multi-attribute analysis and machine learning: A study in the Cretaceous of Ceará Basin, Brazilian Equatorial Margin:** M. R. Cavalcante de Moraes<sup>1</sup>, I. Cerdeira<sup>1</sup>, M. Holz<sup>2</sup>, H. Bedle<sup>3</sup>, K. Leopoldino Oliveira<sup>1</sup> (1. Federal University of Ceará; 2. Federal University of Bahia; 3. University of Oklahoma) Speaker: Miguel Cavalcante de Moraes
- Station B ... **Integrating crustal architecture and paleogeography on the Suriname margin and its conjugates: Opportunities beyond the Golden Lane:** D. Paton<sup>1</sup>, P. J. Markwick<sup>2</sup>, N. Poekietie<sup>3</sup>, G. Hirschfeld<sup>3</sup>, S. Wood<sup>3</sup>, E. Narain<sup>3</sup> (1. Tectonknow; 2. Knowing Earth; 3. Staatsolie) Speaker: Douglas Paton
- Station C ... **3D basin modeling and geochemical characterization of Early Cretaceous source rocks in the deepwater Ceará Basin in the Brazilian Equatorial Margin:** 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 Houston; 2. ThisIsPetroleumSystem; 3. Universidade Federal do Ceara) Speaker: Jose Miguel Gorosabel Araus
- Station D ... **Seismic geomorphology of the Lower Sequence to Miocene of the Ceará Basin:** L. Facundo, N. Maia de Almeida, K. Leopoldino Oliveira, I. Cerdeira, P. Bezerra Oliveira, Y. S. Alencar Lima (Federal University of Ceará) Speaker: Ian Cerdeira





## Tuesday, 26 August

### RP P1 CCS and Storage

8:00 a.m.–9:40 a.m.

*Session Chairs: Kaushik Banerji and Stanislav Glubokovskikh*

**Location: Poster Location 4 (on the 3rd level)**

- Station A ...**Frequency-dependent seismic analysis for hydrogen storage in porous media:** G. Pantaleo (University of Trieste) Speaker: Giovanni Pantaleo
- Station B ...**Nonlinear P-Wave Velocity Response to Microstructural Evolution of CO<sub>2</sub> Hydrate and Quantitative Saturation Prediction Model:** Q. Gu, J. Geng (Tongji University) Speaker: Qingkai Gu
- Station C ...**Characterizing Rock Physics and Seismic Anisotropy in the Seal and Storage Units of the Illinois Decatur CCS Reservoir:** M. D. Lopez Carrasquilla, J. McNease, M. Sun, Y. Zheng (University of Houston) Speaker: Yingcai Zheng
- Station D ...**A novel acoustic multiscale petrophysical model of gas hydrate-bearing sediments:** Z. Wei, S. Deng, Z. Peng (National Key Laboratory of Deep Oil and Gas, China University of Petroleum (East China)) Speaker: Zhoutuo Wei

### RP P2 Measurements and Poroelasticity

8:00 a.m.–9:40 a.m.

*Session Chairs: Arpita Bathija and Teng Long*

**Location: Poster Location 5 (on the 3rd level)**

- Station A ...**Acoustics response of granular porous media with wettability changes:** Y. Chen, L. Fu, T. Müller (China University of Petroleum (East China) Speaker: Yangpu Chen
- Station B ...**Correlation between thermal conductivity and elastic wave velocity in sandstone and unconsolidated sand packs** LHmod: Y. Chen<sup>1</sup>, L. Hathon<sup>2</sup>, M. Myers<sup>1</sup> (1. University of Houston; 2. University of Houston) Speaker: Yanming Chen
- Station C ...**Measurement and analysis of coal velocity under in-situ geological conditions:** Z. Ma, T. Liu, J. Liu (Sinopec Petroleum Exploration and Production Research Institute) Speaker: Zizhuo Ma
- Station D ...**Novel nanoporosity measurement tool for cuttings and core chips:** S. Wu<sup>1</sup>, A. Sneddon<sup>2</sup> (1. Power Energy and Environmental Research Institute; 2. MCWL PALADIN) Speaker: Andrew Sneddon

### ACQ P1 Marine Ocean Bottom Nodes 1

10:20 a.m.–12:00 p.m.

*Session Chairs: Shangli Ou and Derek Unger*

**Location: Poster Location 1 (in the Exhibit Hall)**

- Station E....**STEPS - A comprehensive method for OBN acquisition data quality control:** T. Gong, Y. Hao, H. Du, W. Li, Z. Li, J. Tang, X. Zhang (BGP, CNPC) Speaker: Tongju Gong
- Station F....**Reference Methodology Rapid First Break Picking and OBN Positioning Evaluation:** R. Lei, Z. Xu, Z. Liu, H. Du, X. Wei, M. Luo (BGPO) Speaker: Runchen Lei
- Station G ...**Intelligent OBN (iOBN) with autonomous seafloor seismic processing – technology concept:** J. L. Lopez<sup>1</sup>, S. Grandi<sup>2</sup>, V. E. Beal<sup>3</sup>, A. dos Santos<sup>3</sup>, B. Barbosa<sup>3</sup>, G. de Almeida<sup>3</sup>, O. Pinheiro<sup>3</sup> (1. Shell Brasil Petroleo Ltda; 2. Shell Global Solutions International B.V.; 3. SENAI CIMATEC) Speaker: Jorge Lopez

### ACQ P2 Land Seismic Challenges and Opportunities 1

10:20 a.m.–12:00 p.m.

*Session Chairs: Robert Bodziak and Shashin Sharan*

**Location: Poster Location 2 (in the Exhibit Hall)**

- Station E....**Optimal digital arrays for land seismic exploration in desert environments:** P. Golikov<sup>1</sup>, G. Barnes<sup>2</sup>, E. Murray<sup>2</sup>, E. Alfataierge<sup>1</sup> (1. Saudi Aramco; 2. STRYDE) Speaker: Ezzedeem Alfataierge
- Station F....**Seismic vibrator oil flow estimation at low frequencies:** Z. Wei<sup>1</sup>, R. Wang<sup>2</sup> (1. INOVA Geophysical; 2. BGP, CNPC) Speaker: Zhouhong Wei
- Station G ...**3D oil and gas seismic acquisition in coal goaf zone:** L. Yuan<sup>1</sup>, H. Ning<sup>1</sup>, S. Wenwu<sup>2</sup>, H. Yuanyi<sup>1</sup>, C. Hu<sup>1</sup>, W. Lifeng<sup>1</sup>, Y. Zhengxin<sup>1</sup>, Z. Xiaopeng<sup>1</sup> (1. BGP, CNPC; 2. CNPC JIDONG Oilfield Company) Speaker: Li Yuan
- Station H...**Reducing shot generated land seismic noise with digitally optimized phase arrays:** C. Stork (Land Seismic Noise Specialists) Speaker: Christof Stork

### AP P1 China Case Studies and Technology 1

10:20 a.m.–12:00 p.m.

*Session Chairs: Feng Deng and Zhaolong Liu*

**Location: Poster Location 2 (on the 3rd level)**

- Station E....**Genesis mechanism of low porosity in Permian organic-rich marine shale reservoirs in the Sichuan Basin: Insights from organic matter enrichment:** P. Wang, P. Zhao, B. Shen, M. Li (Sinopec Petroleum Exploration and Production Research Institute) Speaker: Baojian Shen
- Station F....**Seismic Stratigraphy and Reservoir Quality of Deep-Water Channel Complexes in the Mahanadi Basin, India:** N. Gungor, M. Castele, D. Hume, R. Stewart (University of Houston) Speaker: Nilay Gungor
- Station G ...**Fracture prediction using deep learning in buried hill: A case study in CJZ Buried hill, China:** Y. Chen, J. Xu, L. Shi (Key Laboratory of oil & Gas Reservoir Geophysics, SINOPEC) Speaker: Yanyang Chen

### DMLA P3 Generative and Foundation Models 1

10:20 a.m.–12:00 p.m.

*Session Chairs: Altay Sansal and David Tang*

**Location: Poster Location 6 (on the 3rd level)**

- Station E....**Agentic AI Workflow for Enhanced Geological Interpretation: Integrating Autonomous Learning and Data-Driven Analysis:** Y. Agbor (Amazon Web Services) Speaker: Yannick Agbor
- Station F....**Scalable diffusion models with transformers for geomodelling:** M. Xu<sup>1</sup>, G. Wang<sup>2</sup>, S. Song<sup>1</sup>, T. Mukerji<sup>1</sup> (1. Stanford University; 2. University of Science and Technology of China) Speaker: Minghui Xu
- Station G ...**Enhancing trust in generative AI-based applications used for screening CCUS project feasibility with legacy subsurface data:** L. Pelegrin<sup>1</sup>, J. B. Kozman<sup>2</sup>, R. Blake<sup>2</sup>, A. Sharma<sup>1</sup> (1. Iron Mountain; 2. Katalyst Data Management) Speaker: Jess Kozman
- Station H...**Conditional Generative Diffusion Models for Adaptive Earth Velocity Model Synthesis:** H. Li<sup>2</sup>, D. Datta<sup>1</sup>, F. Bazargani<sup>1</sup>, A. Chandran<sup>1</sup>, V. Goh<sup>1</sup> (1. Shell; 2. Stanford University) Speaker: Haipeng Li

# Poster Sessions

Tuesday, 26 August

## DMLA P4 Reservoir and Petrophysical Analysis 1

10:20 a.m.–12:00 p.m.

*Session Chairs: Hector Barrios and Ahmed Merzoug*

**Location: Poster Location 7 (on the 3rd level)**

- Station E....**PetroAgent™ – A Generative AI assistant for Seismic Petrophysics and QI:** A. Das, A. Lu, C. Vavourakis (Amazon Web Services) Speaker: Agnibha Das
- Station F....**Deep Learning for Automated Sedimentary Structure Detection: Comparing YOLOv4 and Faster R-CNN in Core Box Image Analysis:** A. J. AbdImutalib<sup>1</sup>, K. Ayranci<sup>1</sup>, U. Waheed<sup>1</sup>, J. A. MacEachern<sup>2</sup> (1. King Fahd University of Petroleum and Minerals; 2. Simon Fraser University) Speaker: Ammar AbdImutalib
- Station G....**FNO surrogate modeling for reservoir simulation and multi-well placement:** Q. Zhang<sup>1</sup>, W. Li<sup>1</sup>, S. Nasser<sup>1</sup>, R. Kanfar<sup>2</sup>, A. Al-Ali<sup>1</sup>, A. Mana<sup>1</sup> (1. Aramco; 2. Stanford University) Speaker: Qie Zhang

## FWI P1 Applications

10:20 a.m.–12:00 p.m.

*Session Chairs: Rustam Akhmadiev and Eray Kocel*

**Location: Poster Location 5 (in the Exhibit Hall)**

- Station E....**A robust sequential difference time-lapse seismic full-waveform inversion method:** M. G. Gebre, P. D. de Lima, J. M. Araujo (Federal University of Rio Grande do Norte) Speaker: Mesay Gebre
- Station F....**Initial near-surface model building for visco-elastic FWI using Scholte waves from North Sea field data:** K. Xiong<sup>1</sup>, R. Brossier<sup>1</sup>, L. Métivier<sup>2</sup> (1. Université Grenoble Alpes; 2. CNRS) Speaker: Kai Xiong
- Station G....**Comprehensive Velocity Model Building Using Full Waveform Inversion-Based Methodology:** D. Sun, V. Duprat, A. Riou, M. Appé, B. Duquet, S. Whitehead, p. olah, V. Piskunov, S. Shoker, J. Soule (TotalEnergies) Speaker: Dong Sun
- Station H....**Elastic FWI application on shallow water area using Ocean Bottom Data:** B. Yu (Sinopec) Speaker: Bin Yu

## FWI P2 Machine Learning 1

10:20 a.m.–12:00 p.m.

*Session Chairs: Chaoshun Hu and Shiyong Xu*

**Location: Poster Location 6 (in the Exhibit Hall)**

- Station E....**Dual implicit neural representations for FWI with salt:** A. Sekar, H. Van Nguyen, B. Mallison, S. Vitel, A. Halpert, U. Albertin, E. Wang (Chevron) Speaker: Anusha Sekar
- Station F....**Self-supervised learning for low-frequency extrapolation/denoise in field data from Santos Basin:** A. Oliveira Muller, C. Calderon Filho, C. Gomes, F. Farias, F. Leao (Petrobras) Speaker: Ana Paula Oliveira Muller
- Station G....**An adaptive migration image-based CNN-based full-waveform inversion (AIC-FWI):** Y. Wu<sup>2</sup>, H. Sun<sup>1</sup>, Y. Tian<sup>3</sup>, G. Mcmechan<sup>3</sup>, J. Zhou<sup>4</sup> (1. The University of Texas at El Paso; 2. Seattle Children's Hospital; 3. The University of Texas at Dallas; 4. Amazon) Speaker: Yulang Wu
- Station H....**Balancing Wavenumber Content in FWI Imaging Diffusion Regularization:** S. Zhang (King Abdullah University of Science and Technology) Speaker: Shuo Zhang

## GM P2 Applications in Potential Fields Processing and Interpretation

10:20 a.m.–12:00 p.m.

*Session Chairs: Sofia Caylor and Kristoffer Walker*

**Location: Poster Location 3 (on the 3rd level)**

- Station E....**Integrated Geophysical Imaging of Salt Structures at Nordkapp Basin, Barents Sea:** X. Tu, C. Fu, Q. Zhen, Q. Di (Institute of Geology and Geophysics, Chinese Academy of Sciences) Speaker: Xiaolei Tu
- Station F....**Geological Quantum Sensing by Ultra High-Resolution Nitrogen Vacancy Magnetometry:** M. Gonzalez<sup>1</sup>, V. Kazei<sup>1</sup>, L. Louis<sup>1</sup>, J. Rhensius<sup>2</sup> (1. Aramco Services Company: Aramco Research Center – Houston; 2. QZabre AG) Speaker: Miguel Gonzalez
- Station G....**From Free-Air Anomalies to Terrain-UnCorrelated and Terrain-Related Anomalies: A new approach for gravity data processing and terrain density estimation:** L. Ricciardi<sup>1</sup>, G. Florio<sup>1</sup>, T. Pivetta<sup>2</sup> (1. Università degli Studi di Napoli Federico II; 2. INGV) Speaker: Lorenzo Ricciardi
- Station H....**Geophysical targeting of serpentinite for geologic hydrogen by joint analysis of gravity and magnetic data:** Y. Su<sup>1</sup>, S. Wu<sup>1</sup>, J. Sun<sup>1</sup>, X. Wu<sup>1</sup>, Y. Huang<sup>1</sup>, J. Chen<sup>1</sup>, L. Lu<sup>2</sup>, X. Wei<sup>3</sup>, R. Christiansen<sup>4</sup> (1. University of Houston; 2. Shell Global Solutions; 3. Stanford University; 4. Leibniz Institute for Applied Geophysics) Speaker: Yawei Su

## INT P1 Case Study on Machine Learning for Geological Interpretation

10:20 a.m.–12:00 p.m.

*Session Chairs: Arwin Dobber and Jie Qi*

**Location: Poster Location 4 (on the 3rd level)**

- Station E....**Applying transfer learning to an AI-driven automated horizon tracker: A pre-salt case:** J. Zambrini (Aspen Tech) Speaker: Joao Zambrini
- Station F....**Accelerating Seismic Interpretation with Machine Learning: A Case Study from the Gato do Mato Field, Santos Basin, Brazil:** G. Cardoso<sup>1</sup>, E. Perico<sup>1</sup>, A. Pimentel<sup>1</sup>, M. Lowsby<sup>1</sup>, J. Jannuzzi<sup>2</sup>, C. Martinez<sup>2</sup>, J. Navarrete<sup>2</sup>, Y. Leone<sup>2</sup>, K. Havelia<sup>2</sup> (1. Petrobras; 2. SLB) Speaker: Gustavo Cardoso
- Station G....**Gulf of Mexico case study: Seismic interpretation workflows assisted by AI:** G. Espinosa, H. Garcia (Geoteric) Speaker: Gustavo Espinosa
- Station H....**Expediting and optimizing the interpretation of salt and other geological bodies for inclusion into geocellular models using AI at the Gulf:** P. G. Pistoun (Integrated Seismic & Geomodels, LLC) Speaker: Patricia Pistoun

## INT P2 Interpretation Case Study

10:20 a.m.–12:00 p.m.

*Session Chairs: Fawz Naim and Niven Shumaker*

**Location: Poster Location 5 (on the 3rd level)**

- Station E....**A correction method of paleokarst channel width: A case study in the Tarim Basin, China:** H. Lv, L. Ma, C. Zhang, L. Yang, Y. Li (Sinopec Geophysical Research Institute Co. Ltd) Speaker: Hui Lv
- Station F....**The formation mechanism and characterization method of the fractured reef: A case study of the Ordovician**



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**formation in the Tarim basin:** M. Wang<sup>1</sup>, S. Chang<sup>2</sup>, J. Chen<sup>2</sup>, K. Ji<sup>2</sup> (1. Hangzhou Research Institute of Geology; 2. Petrochina Hangzhou Research Institute of Geology) Speaker: Mengxiu Wang

Station G ... **Application of seismic inversion to reservoir parameter variability recognition in the Jurassic and Cretaceous formations of the Carpathian Foreland, southern Poland:** K. Paprota<sup>1</sup>, A. Urbaniec<sup>2</sup>, R. Barton<sup>2</sup>, K. Filipowska-Jeziorek<sup>2</sup> (1. AGH University of Krakow; 2. Oil And Gas Institute - National Research Institute) Speaker: Kacper Paprota

Station H ... **Integrating structural and stratigraphic components into growth fault analysis: An enhanced resource evaluation template:** H. Rehman, W. R. Finely (University of Louisiana at Lafayette) Speaker: Hamza Rehman

### LAC P2 South Atlantic Offshore 1

10:20 a.m.–12:00 p.m.

*Session Chairs:* Norelis Rodriguez and Aydin Shahtakhtinskiy

**Location:** Poster Location 1 (on the 3rd level)

Station E ... **Strategic development and market approaches for Trinidad and Tobago's deepwater gas resources:** S. Vargas, J. Hardiwinangun (S&P Global) Speaker: Stephanie Vargas

Station F ... **Integrated multiscale, multiproxy Analysis of Hydrothermal vents – occurrence, geometry, structuring and lithological composition on BMC-33 Block, Campos Basin:** R. d. Alvarenga<sup>1</sup>, I. L. de Jesus<sup>1</sup>, H. Yamassaki<sup>1</sup>, R. Alberti<sup>1</sup>, A. Soares<sup>1</sup>, G. J. Terra<sup>1</sup>, A. B. França<sup>1</sup>, M. Fetter<sup>2</sup>, G. V. Bueno<sup>2</sup>, S. L. Fontes<sup>1</sup>, E. F. La Terra<sup>1</sup>, M. Blauth<sup>1</sup>, L. A. Trindade<sup>1</sup>, W. Granitoff<sup>1</sup>, A. Guimarães<sup>3</sup> (1. National Observatory; 2. Universidade Federal Fluminense; 3. Petronas Brasil) Speaker: Renata Alvarenga

Station G ... **NAZ and Beyond: What's Next for Marine Streamer Brazil Exploration:** M. Cvetkovic, F. Colina, K. Reuber, S. Baldock, M. Widmaier, G. Nash, D. Unger (TGS) Speaker: Milos Cvetkovic

Station H ... **Petroleum geochemistry of South Atlantic equatorial margin oils: ACT Cretaceous sources, multiple signals of maturity, and migration:** J. E. Zumberge (GeoMark Research) Speaker: John Zumberge

### NS P1 Infrastructure

10:20 a.m.–12:00 p.m.

*Session Chairs:* Yunyue Elita Li and Pinghao Wang

**Location:** Poster Location 7 (in the Exhibit Hall)

Station E ... **Comparison of Road and Bridge Structural Responses under Environmental Vibration Based on Seismic Data:** X. Zhu, J. Zhang (University of Science and Technology of China (USTC)) Speaker: Xiaoxuan Zhu

Station F ... **Near surface p- and s-wave seismic imaging for embankment characterization in Poland:** E. R. Mohamed, M. Majdanski (Institute of Geophysics Polish Academy of Sciences) Speaker: Eslam Mohamed

Station G ... **Fast shearlet classification of urban utilities without big data:** J. N. Ogunbo, S. Lee, J. Choi, S. Kim (Isung Co. LTD) Speaker: Jide Ogunbo

Station H ... **Offshore infrastructure assessment post hurricane damage: A case study for deep learning based three-dimensional inversion of magnetic data:** S. Mukherjee<sup>1</sup>,

B. Barkhouse<sup>2</sup> (1. EmPact-AI; 2. Drone Geoscience (Non-Author)) Speaker: Bill Barkhouse

### SP P1 Multiple Removal Techniques

10:20 a.m.–12:00 p.m.

*Session Chairs:* Yang Liu and Frederico Xavier De Melo

**Location:** Poster Location 3 (in the Exhibit Hall)

Station E ... **Green's theorem water-layer multiples elimination algorithm: Applications in analytic, synthetic and field data:** J. Yang, Z. Wang, G. Zhang, S. Hu, J. Zhang (Sinopec Geophysical Research Institute) Speaker: Jinlong Yang

Station F ... **Internal multiples prediction based on Green's function: A case study in the Yellow Sea:** Q. Xu (COSL) Speaker: Qiang Xu

Station G ... **Attenuation of OBN multiples by up/down deconvolution and down/down deconvolution:** S. Li (BGP, CNPC) Speaker: Shuo Li

Station H ... **Research on Comprehensive Prediction Methods for Water-bottom Multiples with Dynamic Characteristics:** S. Hu, J. Yang, P. Qi (SINOPEC Geophysical Research Institute Co.,Ltd) Speaker: Jinlong Yang

### SP P2 Machine Learning in Seismic Data Processing 2

10:20 a.m.–12:00 p.m.

*Session Chairs:* Oluwakemi Eleyinafe and Xinquan Huang

**Location:** Poster Location 4 (in the Exhibit Hall)

Station E ... **Downward continuation with discrete Physics Informed Neural Networks:** F. Brandolin, T. Alkhalifah (KAUST) Speaker: Francesco Brandolin

Station F ... **Unsupervised seismic data interpolation and denoising via Self2Self with TV regularization:** X. Yang, B. Wang, Y. Zhang (Tongji University) Speaker: Xikun Yang

Station G ... **Unsupervised multi-dimensional seismic denoising and interpolation via single-trace deep representation learning:** G. Chen, Y. Liu (China University of Petroleum (Beijing)) Speaker: Gui Chen

Station H ... **Seismic interpolation using 3D denoising diffusion probability model:** A survey: D. Xiong, B. Wang, J. Zhang, T. Zhang, W. Geng, D. Xiong, J. An (BGP, China) Speaker: Jingyi An

### TL P1 4D Seismic Acquisition and Processing 1

10:20 a.m.–12:00 p.m.

*Session Chairs:* Erkan Ay and Zhaohui Yang

**Location:** Poster Location 6 (in the Exhibit Hall)

Station A ... **Real-time and time-lapse subsurface monitoring using monochromatic sources and phase-sensitive detection:** M. Bader, I. Lim Chen Ning, K. Nihei, B. Harvey (Chevron U.S.A. Inc.) Speaker: Milad Bader

Station B ... **Realistic 4D OBN seismic data simulation for Brazilian Pre-Salt settings:** E. Fagua Duarte<sup>1</sup>, D. Da Silva<sup>1</sup>, J. Schwarzrock<sup>1</sup>, R. C. Araújo<sup>1</sup>, G. Corso<sup>1</sup>, J. M. Araujo<sup>1</sup>, J. L. Lopez<sup>2</sup>, D. Kiyashchenko<sup>3</sup> (1. Universidade Federal do Rio Grande do Norte; 2. Shell Brasil Petroleo Ltda; 3. Shell) Speaker: Edwin Fagua Duarte

Station C ... **Detection limits in 4D seismic monitoring based on signal-to-noise ratio:** K. Taweesintananon, W. Promrak, P. Boonyasatphan (PTTEP) Speaker: Kittinat Taweesintananon



# Poster Sessions

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Station D ...**Instrumenting the Devine Site as a Field Laboratory for Hydrogen Injection:** Characterization and Monitoring Feasibility Assessment: A. Bakulin<sup>1</sup>, S. Swaminadhan<sup>1</sup>, M. Shuster<sup>1</sup>, B. Gurevich<sup>2</sup> (1. University of Texas at Austin; 2. Curtin University) Speaker: Andrey Bakulin

## ACQ P3 Onshore Exploration and Seismic

1:20 p.m.–3:00 p.m.

*Session Chairs: Chengbo Li and Marina Ramirez Medina*

**Location: Poster Location 1 (in the Exhibit Hall)**

Station A ...**A Novel Full-Node Seismic Acquisition Framework for High-Fidelity Imaging in Complex Near-Surface:** X. Dong (Sinopec Geophysical Corporation R&D Center) Speaker: Xuguang Dong

Station B ...**Active seismic survey for subsurface imaging and hydrocarbon exploration in Beaufort West, South Africa:** M. Mkhomazi<sup>1</sup>, M. Manzi<sup>1</sup>, M. Sihoyiya<sup>1</sup>, J. Matamela<sup>2</sup>, T. Mabidi<sup>3</sup>, S. Adama<sup>3</sup>, S. Johnson<sup>3</sup>, M. Mokoele<sup>3</sup> (1. University of the Witwatersrand, Johannesburg; 2. Council for Geosciences; 3. Petroleum Agency SA) Speaker: Marcus Nyiko Mkhomazi

Station C ...**Large-scale lithium scouting in the desert region using insights from multispectral satellite data:** A. Ramdani, P. Golikov, A. Wahbi, T. Yousef, E. Alfataierge (Saudi Aramco) Speaker: Ezzedein Alfataierge

Station D ...**High-precision 3D acquisition technology and its application for deep subsalt structure in Yingxiongling, Qaidam Basin:** Y. Wu<sup>1</sup>, W. Li<sup>1</sup>, Y. Wang<sup>2</sup>, C. Han<sup>1</sup>, B. Yu<sup>3</sup>, H. Yao<sup>1</sup> (1. BGP, CNPC; 2. Qinghai Oilfield Company, PetroChina; 3. BGP) Speaker: Yongguo Wu

## ACQ P4 Survey Design and Compressive Sensing 1

1:20 p.m.–3:00 p.m.

*Session Chairs: Valeriy Brytik and Chris Tapie*

**Location: Poster Location 2 (in the Exhibit Hall)**

Station A ...**Survey planning for CO<sub>2</sub> monitoring: Theory and simple examples:** A. Malcolm (Memorial University of Newfoundland) Speaker: Alison Malcolm

Station B ...**Development trace density at exploration cost: Compressive sensing for improved data quality and cost effectiveness:** K. L. Millis, K. Koster, R. Al Adawi, D. Blymyer (Occidental) Speaker: Keith Millis

Station C ...**Evaluating the concept of blending and compressive sensing onshore Japan:** T. Ishiyama<sup>1</sup>, T. Uchigaki<sup>1</sup>, F. Hu<sup>2</sup> (1. INPEX; 2. BGP) Speaker: Tomoki Uchigaki

Station D ...**Application of modeling technology for surface igneous rocks in Hainan, China:** Y. Huang<sup>1</sup>, L. Dong<sup>2</sup>, H. Ning<sup>1</sup>, C. Hu<sup>1</sup>, W. Tianyun<sup>1</sup>, G. Cheng<sup>1</sup>, H. Jian<sup>1</sup>, G. Zhang<sup>1</sup>, Z. Qiang<sup>1</sup>, Z. lei<sup>1</sup>, Z. Jin<sup>1</sup> (1. BGP, CNPC; 2. South Petroleum Exploration and Development Company) Speaker: Yuanyi Huang

## AP P2 China Case Studies and Technology 2

1:20 p.m.–3:00 p.m.

*Session Chairs: Philomena Gan and Yitian Xiao*

**Location: Poster Location 2 (on the 3rd level)**

Station A ...**Adaptive wavelet full waveform inversion and a case for onshore seismic data of Tarim Basin:** Z. Liu, Y. Chen (Sinopec Petroleum Exploration and Production Research Institute) Speaker: Zhi Yuan Liu

Station B ...**Reliability assessment on seismic facies classification of artificial neural networks: A case study for Ordos Basin:** Z. Liu, D. Jiang (Sinopec Petroleum Exploration and Production Research Institute) Speaker: Zhi Yuan Liu

## EM P1 Case Studies and Reservoir Surveillance

1:20 p.m.–3:00 p.m.

*Session Chairs: Yueqin Huang and Randall Mackie*

**Location: Poster Location 7 (on the 3rd level)**

Station A ...**Investigation of the electromagnetic responses due to strong conductive man-made structures in the surrounding area: A study based on data measured at the Saemangeum Seawall crest:** H. Kang, S. Seol, J. Byun (Hanyang Univ.) Speaker: Hyeonwoo Kang

Station B ...**Ground-to-air TEM for geohazards:** T. Y. Alyousuf, D. Colombo, E. Turkoglu, E. Sandoval Curiel (Saudi Aramco) Speaker: Taqi Alyousuf

Station C ...**Dynamic CO<sub>2</sub> plume monitoring for safe, dependable, long-term CCS/CCUS operations:** K. M. Strack, H. Freitag (KMS Technologies) Speaker: Kurt Strack

Station D ...**SQUID-TEM method with high signal-to-noise ratio effective for deep geophysical exploration in both green and brown fields:** K. Tanabe<sup>1</sup>, A. Tsukamoto<sup>1</sup>, H. Wakana<sup>1</sup>, T. Hato<sup>1</sup>, M. Zhdanov<sup>2</sup> (1. SUSTEC; 2. TechnoImaging) Speaker: Keiichi Tanabe

## FWI P3 Case Studies 1

1:20 p.m.–3:00 p.m.

*Session Chairs: Erik Neumann and Brad Wray*

**Location: Poster Location 5 (in the Exhibit Hall)**

Station A ...**Hybrid full waveform inversion with elastic model: A field study in South Atlantic Oceanic Plate:** S. Zhang<sup>2</sup>, Z. Zhao<sup>1</sup>, M. Sen<sup>2</sup>, S. Hu<sup>2</sup> (1. Peking University; 2. The University of Texas at Austin) Speaker: Shuo Zhang

Station B ...**Elastic full-waveform inversion of a targeted FWI OBN survey at Atlantis field:** S. Luo, I. Ahmed, E. Diaz, G. Xia, X. Shen, L. Jiang, T. Yang, Y. Feng, J. Morgan, O. Egbue (bp) Speaker: Simon Luo

Station C ...**Resolving Messinian Salt in the East Mediterranean with elastic full-waveform inversion using narrow-azimuth towed-streamer data:** W. Kang<sup>1</sup>, O. Hossam<sup>1</sup>, M. Ouda<sup>1</sup>, A. Alemam<sup>1</sup>, G. Saleh<sup>1</sup>, M. Salheen<sup>1</sup>, A. Sazykin<sup>1</sup>, G. Busanello<sup>1</sup>, X. Cheng<sup>1</sup>, D. Vigh<sup>1</sup>, M. Radwan<sup>2</sup>, R. Seddeeq<sup>2</sup>, A. Mamdouh<sup>2</sup>, A. Ahmed<sup>2</sup> (1. SLB; 2. Egypt Upstream Gateway) Speaker: Wei Kang

Station D ...**Ocean-bottom node survey shot geometry optimization: A FWI oriented study:** R. Huang, D. Bookes, M. Cvetkovic (TGS) Speaker: Richard Huang

## FWI P4 Case Studies 2

1:20 p.m.–3:00 p.m.

*Session Chairs: Dimitri Bevc and Yi Tao*

**Location: Poster Location 6 (in the Exhibit Hall)**

Station A ...**Application of High Frequency Reflection FWI in Nova Scotia: A case study:** G. Yu, R. Huang, I. Berranger, D. M. Davies, I. Novianti (TGS) Speaker: Gan Yu

Station B ...**Extracting high resolution images using multiparameter elastic FWI:** G. Huang, C. Macesanu, J. Sheng, F. Liu, J.





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Ramos-Martinez, D. Whitmore, C. Calderon (TGS) Speaker:  
Guanghui Huang

Station C ... **Full-Waveform Inversion in Deepwater Complex Salt Basins: A Case Study from Gabon:** W. Han<sup>2</sup>, W. Peng<sup>2</sup>, T. Cheng<sup>2</sup>, A. Li<sup>2</sup>, Y. Yuan<sup>2</sup>, J. Huang<sup>2</sup>, S. Yang<sup>1</sup> (1. China University of Petroleum (East China); 2. CNOOC International Limited) Speaker: Wenming Han

Station D ... **Imaging the Delaware Fill Zone with ultra high-density data and high-frequency land FWI:** S. SUN, L. Zheng (Viridien) Speaker: Lin Zheng

### INT P3 Interpretation Methods 1

1:20 p.m.–3:00 p.m.

*Session Chairs: Anatoly Aseev and Fan Jiang*

**Location: Poster Location 4 (on the 3rd level)**

Station A ... **Prediction of Fracture-Cavity Reservoirs in Ultra-Deep Carbonate Strike-Slip Fault Zones: A Multi-Dimensional Angle-Domain Imaging Data Attribute Fusion Technique:** W. Zhang, W. Huang, X. Xiang, Q. Dong, F. Li, Y. Li, B. Zhu, C. Bi, J. Li (SINOPEC Geophysical Research Institute Co., Ltd) Speaker: QinYuan Dong

Station B ... **A tectonostratigraphic interpretation of the Mimir High through seismic-borehole tie: New insights into the Paleogene evolution of the Vøring Transform Margin:** M. S. Nygaard<sup>1</sup>, S. Planke<sup>5</sup>, D. Z. Zastrozhnov<sup>1</sup>, I. Midtkandal<sup>1</sup>, R. Huismans<sup>2</sup>, J. Faleide<sup>1</sup>, C. Berndt<sup>3</sup>, S. Bünz<sup>4</sup>, N. Lebedeva-Ivanova<sup>5</sup>, H. Brinkhuis<sup>6</sup>, M. M. Abdelmalak<sup>1</sup>, M. Jones<sup>7</sup>, J. Millett<sup>1</sup> (1. University of Oslo; 2. University of Bergen; 3. GEOMAR Helmholtz Centre for Ocean Research; 4. UiT The Arctic University of Norway; 5. Volcanic Basin Energy Research (VBER); 6. NIOZ, Royal Netherlands Institute for Sea Research; 7. University of Umeå) Speaker: Madeleine Nygaard

Station C ... **Refined seismic interpretation of fault system based on Diffraction Imaging: A Brazilian Pre-salt case:** D. Potomati, E. Thedy, D. Marques, P. Andrade, M. P. De Almeida (PETROBRAS) Speaker: Diego Potomati

Station D ... **Reservoir Parameter Prediction Based on Spatial Attentive Neural Processes:** R. Guo, P. Yang, R. Wen, C. Tao, Y. Gao, Y. Yao (BGP, CNPC) Speaker: Rui Guo

### INT P4 Seismic Attributes

1:20 p.m.–3:00 p.m.

*Session Chairs: Francesca Fazzari and Abay Veli*

**Location: Poster Location 5 (on the 3rd level)**

Station A ... **Interactive seismic facies segmentation using multi-attribute seismic data:** A. Ahmad<sup>1</sup>, H. Bedle<sup>1</sup>, A. Mustafa<sup>2</sup> (1. University of Oklahoma; 2. Occidental Petroleum) Speaker: Aniq Ahmad

Station B ... **Finding the Balance: Human Insight vs. Machine Learning Techniques to Optimize Deepwater Channel Facies Identification:** A. D. Moreno-Ward, H. Bedle (University of Oklahoma) Speaker: April Moreno-Ward

Station C ... **Using seismic to predict favorable areas for a fault-fracture controlled tight sandstone gas reservoir in Xujiache formation, northeastern Sichuan Basin, China:** S. Pei, Q. Dong, C. Liu, X. Wang, X. Han, B. Wang (Sinopec Geophysical Research Institute) Speaker: Sijia Pei

Station D ... **Research on optimization of injection-production efficiency in operational gas storage based on seismic attributes and well dynamics:** Y. Ma<sup>1</sup>, Q. Wang<sup>2</sup>, T. Li<sup>1</sup>, G. Lu<sup>1</sup>, Q. Tong<sup>1</sup> (1. BGP, CNPC; 2. Dagang Oilfield ,CNPC) Speaker: Yuehua Ma

### INT P5 Integrated Geological Interpretation

1:20 p.m.–3:00 p.m.

*Session Chairs: Travis Moreland and Hugo Munoz*

**Location: Poster Location 6 (on the 3rd level)**

Station A ... **Geophysical Characterization of the Crust in the Tyrrhenian Sea Using Integrated Geophysical Analysis and Scientific Drilling Constraints:** T. E. Onyebum (University of Nebraska-Lincoln) Speaker: Tochukwu Onyebum

Station B ... **Comprehensive identification and prediction of dominant hydrocarbon migration pathways in the Xihu depression, East China Sea Basin:** Y. Cheng (China University of Petroleum (East China)) Speaker: Yifan Cheng

Station C ... **Structure and Physical Properties of a Fen in the Valles Caldera, NM:** E. Smith<sup>1</sup>, O. van Linder<sup>4</sup>, S. Jensen<sup>5</sup>, R. Marguiles<sup>6</sup>, A. Mohn<sup>7</sup>, K. Riley-O'Connor<sup>8</sup>, M. Susko<sup>9</sup>, O. Azevedo<sup>10</sup>, P. Bedrosian<sup>11</sup>, J. Ferguson<sup>2</sup>, N. Igonin<sup>2</sup>, S. Kelley<sup>3</sup> (1. University of Wyoming; 2. University of Texas Dallas; 3. New Mexico Bureau of Geology; 4. Colorado College; 5. Technical University of Denmark; 6. Aclarity; 7. University of Edinburgh; 8. Binghamton University; 9. Mount Holyoke College; 10. Georgia Institute of Technology; 11. USGS) Speaker: Eva Smith

Station D ... **Core and well log study of Wolfcamp C slope-basinal facies, Midland Basin, Texas:** R. A. Saldana (UTPB) Speaker: Rosendo Saldana

### LAC P3 Frontier Basins 1

1:20 p.m.–3:00 p.m.

*Session Chairs: Kaushik Banerji and Hernan Reijenstein*

**Location: Poster Location 1 (on the 3rd level)**

Station A ... **Probabilistic velocity time-depth conversion with cross-gradients constraint and Hamiltonian Monte Carlo: A South Sub-Andean Seismic-MT experiment:** A. I. Quiaro, Z. Vestrum, M. Unsworth, M. D. Sacchi (University of Alberta) Speaker: Alejandro Quiaro

Station B ... **Leveraging artificial intelligence in the onshore play exploration: A case study from the Macuspana Basin, Mexico:** J. Roman-Ramos<sup>1</sup>, G. Ramirez Gutierrez<sup>2</sup>, I. Islas<sup>2</sup>, K. Wong<sup>3</sup> (1. PEMEX; 2. Jaguar E&P; 3. Ellis Inc.) Speaker: Gustavo Ramirez Gutierrez

### NS P2 Noise and Uncertainty in Near Surface Seismic Analysis

1:20 p.m.–3:00 p.m.

*Session Chairs: Christine Downs and Nikhil Punithan*

**Location: Poster Location 7 (in the Exhibit Hall)**

Station A ... **Machine learning-based efficient prediction of Elastic properties and uncertainty using Gaussian Processes:** S. Kim, H. Jun (Kyungpook National University) Speaker: Sujeong Kim

Station B ... **Impact of near-surface topography on reflection distortions: From diffractions to speckle noise:** A. Rohatgi, A. Bakulin, S. Fomel, J. Badger (The University of Texas at Austin) Speaker: Akshika Rohatgi

# Poster Sessions

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Station C ...**Enhancing Machine-Learning based Seismic Inversion with Noise-Augmented Training Datasets:** Y. Zhang<sup>1</sup>, D. Borisov<sup>1</sup>, S. Abbasi<sup>1</sup>, A. Hoch<sup>1</sup>, R. D. Miller<sup>1</sup>, S. Sloan<sup>2</sup> (1. Kansas Geological Survey; 2. US Army Engineer Research & Development Center) Speaker: Yanwei Zhang

Station D ...**A supervised common offset diffraction estimation approach using deep convolutional networks:** M. Abbasi<sup>1</sup>, D. Borisov<sup>1</sup>, Y. Zhang<sup>1</sup>, J. Ivanov<sup>1</sup>, S. L. Peterie<sup>1</sup>, R. Miller<sup>1</sup>, S. Sloan<sup>2</sup> (1. Kansas Geological Survey; 2. US Army Engineer Research & Development Center) Speaker: Muhammad Abbasi

## SP P3 Seismic Data Interpolation, Regularization and Deblending

1:20 p.m.–3:00 p.m.

Session Chairs: Jianyong Bai and Tong Bai

Location: Poster Location 3 (in the Exhibit Hall)

Station A ...**Simultaneous source separation: Accuracy and algorithms:** R. L. Abma (University of Texas at Austin) Speaker: Raymond Abma

Station B ...**Self-supervised seismic deblending in hybrid domains:** S. Wang<sup>1</sup>, L. Sun<sup>1</sup>, H. Wang<sup>1</sup>, D. Ma<sup>1</sup>, Q. Xu<sup>1</sup>, X. Si<sup>2</sup> (1. China Oilfield Services Ltd.; 2. Georgia Institute of Technology) Speaker: Shenghou Wang

Station C ...**Prestack Low-frequency Reconstruction with Multi-scale Autoregressive Spectral Extension:** Y. Ma<sup>1</sup>, L. Liu<sup>1</sup>, C. Tsingas<sup>2</sup>, M. Almubarak<sup>3</sup>, A. Alfara<sup>2</sup> (1. Aramco Beijing Research Center; 2. Saudi Aramco; 3. Saudi Aramco) Speaker: Yue Ma

Station D ...**Fast high-order sparse Radon transform with generalized Fourier slice theorem:** T. Mo, B. Wang, J. Geng (Tongji University) Speaker: Tongtong Mo

## SP P4 Near Surface Solution and Elastic 1

1:20 p.m.–3:00 p.m.

Session Chairs: Ameur Hamdane and Orhan Yilmaz

Location: Poster Location 4 (in the Exhibit Hall)

Station A ...**Double decimation: An effective approach for surface-consistent computations:** C. Ursenbach (TGS) Speaker: Charles Ursenbach

Station B ...**Residual statics correction for complex near surface challenges:** D. Zhang, M. Almubarak, C. Tsingas (Saudi Aramco) Speaker: Dongliang Zhang

Station C ...**Are Near Field Hydrophone recordings useful?:** D. Zhang, C. Tsingas (Saudi Aramco) Speaker: Dongliang Zhang

Station D ...**Passive Seismic Data Marchenko Imaging: A Framework for Simultaneous Coherent Noise Attenuation:** J. Zhang<sup>1</sup>, J. Yang<sup>1</sup>, Z. Wang<sup>1</sup>, G. Zhang<sup>1</sup>, H. Zheng<sup>2</sup> (1. Sinopec Geophysical Research Institute Co. Ltd.; 2. Sinopec Geophysical Research Institute Co. Ltd. (Non-Author)) Speaker: Hao Zheng

## STUD P1 Integrated Geology and Geophysics Studies

1:20 p.m.–3:00 p.m.

Session Chairs: Maria Gutierrez and Christina Shadoan

Location: Poster Location 3 (on the 3rd level)

Station A ...**Deep Learning-Based Shale Characterization in the Raniganj Basin, India:** N. Shaik, N. Vedanti (CSIR- National Geophysical Research Institute) Speaker: Nasif Ahmed Shaik

Station B ...**Assessing crustal affinity of the Greenland-Iceland-Faroe Ridge from joint analysis of multiple geophysical datasets:** Z. Clowdus, I. Filina (University of Nebraska-Lincoln) Speaker: Zachary Clowdus

Station C ...**Radiographing Mountains: Development of a Muon Hodoscope for Mineral Deposit Imaging:** L. M. Sanchez Rhenals (Los Andes University) Speaker: Luisa Sanchez Rhenals

Station D ...**The influence of fluids generated by subduction zones on plate structure and slow slip events: Analyzing receiver functions in southcentral Alaska:** M. Aleid, E. Golos (The University of Wisconsin-Madison) Speaker: Mustafa Aleid

## ACQ P5 Acquisition Technology and Hardware

3:40 p.m.–5:20 p.m.

Session Chairs: Laura Pointer and Christian Strand

Location: Poster Location 1 (in the Exhibit Hall)

Station E ...**Research and application of the relationship between node instrument status and seismic data attributes:** C. Cai, J. Lu, W. Qu, L. Qin, W. Shao (SINOPEC Geophysical Corporation) Speaker: Jiaotong Lu

Station F ...**Recording system enablers of large-scale onshore seismic with nodes:** T. O'Toole, K. O'Connell, B. Coil, M. Tascher, R. Eperjesi, N. Goujon (STRYDE) Speaker: Tom O'Toole

Station G ...**Assessing the environmental impact of large-volume low-frequency marine seismic sources:** A. Goertz, S. C. Stockwell, M. Cvetkovic, G. Nash, O. Orji (TGS) Speaker: Simon Stockwell

Station H ...**Comprehensive Examination of the Four Spatial Dimensions in 3D Seismic Survey Geometries:** M. Naghizadeh, A. Crook (Optiseis Solutions Ltd.) Speaker: Mostafa Naghizadeh

## EM P2 Modeling and Inversion 2

3:40 p.m.–5:20 p.m.

Session Chairs: Lin Liang and Jianguo Liu

Location: Poster Location 7 (on the 3rd level)

Station E ...**Comparison of spatial calibration methods for airborne electromagnetic data inversion:** H. Ren, T. Chen, Y. Rao (China University of Petroleum, Beijing) Speaker: Tao Chen

Station F ...**Enhanced time-domain modeling of the impact of electrical double layer on dielectric dispersion measurements: An integrated multi-scale analysis on quartz grains:** Z. Azizoglu, M. Khoury, Z. Heidari (The University of Texas at Austin) Speaker: Zulkuf Azizoglu

Station G ...**A geometric multigrid solver method for 2.5D fast simulation of electromagnetic wave LWD in complex media:** Z. Zeng, Y. Han, L. Wang, M. Jia (China University of Petroleum (East China)) Speaker: Zhichun Zeng

Station H ...**Research on fast current turn-off technology for high power transient electromagnetic transmitter:** Q. Zhen, Q. Di, C. Fu, X. Tu (Institute of Geology and Geophysics, Chinese Academy of Sciences (IGGCAS)) Speaker: Qihui Zhen

## EMME P1 Eastern Mediterranean, Middle East, Europe, and Caspian Region

3:40 p.m.–5:20 p.m.

Session Chairs: Christoph Lehmann and Alicia Staszyc

Location: Poster Location 1 (on the 3rd level)



## Tuesday, 26 August

- Station E....**Simultaneous Reconstruction and Deblending for Compressed Sensing ISS Data:** S. Chen<sup>1</sup>, J. Song<sup>1</sup>, Y. Wang<sup>1</sup>, M. Mahgoub<sup>2</sup>, S. A. Al Mesaabi<sup>2</sup>, D. Arnold<sup>2</sup>, H. Tang<sup>1</sup>, J. Sun<sup>1</sup>, J. Jiang<sup>1</sup> (1. BGP; 2. ADNOC) Speaker: Shuangting Chen
- Station F....**Ai-driven subsurface characterization for secure CO<sub>2</sub> storage:** A data-integrated approach: N. S. Alnaser<sup>1</sup>, O. Shaikh<sup>2</sup>, S. Nasser<sup>1</sup> (1. Aramco; 2. Saudi Aramco) Speaker: Naser Alnaser

### FWI P5 Theory and Methods 2

3:40 p.m.–5:20 p.m.

*Session Chairs: Sizhuang Deng and Fuchun Gao*

**Location: Poster Location 5 (in the Exhibit Hall)**

- Station E....**Bayesian full waveform inversion using Stein variational gradient descent and manifold projections:** M. H. Taufik, T. Alkhalifah (KAUST) Speaker: Mohammad Taufik
- Station F....**Characteristic reflection traveltime inversion using an improved cross-correlation method:** C. Wu, H. Wang, B. Feng, R. Xu, Z. Nie, J. Xiang, C. Ning (Tongji University) Speaker: Chengliang Wu
- Station G....**Efficient Bayesian inference for full waveform inversion: An overview of modern approaches:** P. Marchner<sup>1</sup>, R. Brossier<sup>1</sup>, L. Métivier<sup>2</sup> (1. Univ Grenoble Alpes; 2. CNRS) Speaker: Philippe Marchner
- Station H....**ADMM-based TV-regularized Joint time-lapse FWI:** T. Rolin<sup>1</sup>, D. Auroux<sup>2</sup>, L. Combe<sup>1</sup>, S. Operto<sup>1</sup> (1. UCA-CNRS; 2. University Côte d'Azur) Speaker: Stephane Operto

### FWI P6 Machine Learning 3

3:40 p.m.–5:20 p.m.

*Session Chairs: Weiping Cao and Soumya Roy*

**Location: Poster Location 6 (in the Exhibit Hall)**

- Station E....**Full-waveform variational inference with full common-image gathers and diffusion network:** Y. Zeng<sup>1</sup>, H. Erdinc<sup>1</sup>, R. Orozco<sup>2</sup>, F. J. Herrmann<sup>1</sup> (1. Georgia Institute of Technology; 2. Occidental Petroleum) Speaker: Yunlin Zeng
- Station F....**Full waveform inversion with CNN-based velocity representation extension: Field data application:** X. Mu, O. M. Saad, T. Alkhalifah (King Abdullah University of Science and Technology) Speaker: Xinru Mu
- Station G....**Conditioning Low-Frequency FWI Updates using Diffusion Networks Trained on Deepwater Field Data:** J. D. Stitt<sup>2</sup>, E. Wang<sup>1</sup>, G. Shan<sup>1</sup>, U. Albertin<sup>1</sup>, M. Fan<sup>1</sup> (1. Chevron; 2. Stanford University) Speaker: Joseph Stitt
- Station H....**Diffusion generative model for full waveform inversion:** Y. Shen, Y. Chen, B. Engquist (University of Texas at Austin) Speaker: Yiran Shen

### GI P1 Case Studies 1

3:40 p.m.–5:20 p.m.

*Session Chairs: Michael McGlashan and Linda Price*

**Location: Poster Location 2 (on the 3rd level)**

- Station E....**Implementing OSDU EDI: A transformative opportunity at Occidental Petroleum:** A. Belknap<sup>1</sup>, R. Bhosale<sup>1</sup>, W. Frazao<sup>2</sup> (1. Oxy; 2. AWS) Speaker: Alkesta Belknap
- Station F....**Quantifying the spatial heterogeneity of attributes in sandstones with point pattern analysis:** Z. Ju, W. Yang (Missouri University of Science and Technology) Speaker: Ziyue Ju

- Station G....**An Innovative Machine Learning Approach for Automated Calibration of Static and Dynamic Reservoir Models: A Case Study of the Umm Gudair Field, Kuwait:** M. Sitouah<sup>2</sup>, N. Al-Kudhur<sup>1</sup>, J. Al-shatti<sup>1</sup>, A. Akbar<sup>1</sup>, S. Al-lanqawi<sup>1</sup>, M. Al-mutairi<sup>1</sup>, K. Morsal<sup>2</sup>, M. Mihai<sup>2</sup>, M. Abd El Dayem<sup>2</sup> (1. KOC; 2. SLB) Speaker: Mohamed Sitouah
- Station H....**Towards generative modeling of CO<sub>2</sub> geological storage with latent conditional diffusion models:** V. De Pellegrini, T. Alkhalifah (KAUST) Speaker: Vittoria De Pellegrini

### INT P6 Geologic Stories

3:40 p.m.–5:20 p.m.

*Session Chairs: Chadwick Holmes and Zhaohui Xu*

**Location: Poster Location 4 (on the 3rd level)**

- Station E....**Response of facies to Quaternary climate change over the past 1.51 Ma in Taidong area of Qaidam Basin, NW China:** Z. Xu<sup>1</sup>, G. Liu<sup>2</sup>, H. Zeng<sup>3</sup>, J. Li<sup>2</sup>, J. Li<sup>1</sup>, J. Tian<sup>1</sup>, C. Lin<sup>4</sup> (1. RIPED, CNPC; 2. PetroChina Qinghai Oilfield Company; 3. The University of Texas at Austin; 4. School of Earth Sciences and Engineering, Nanjing University) Speaker: Zhaohui Xu
- Station F....**Provenance of uppermost Carboniferous–Lower Triassic sandstones, Bogda Mountains, NW China: Implication on late Paleozoic tectonic history of southern Central Asian Orogenic Belt:** S. Wu, W. Yang (Missouri University of Science and Technology) Speaker: Sixuan Wu
- Station G....**Influence of Microbial Mat on the Sedimentary Dynamics and Stratigraphy of the Aaron Formation in the South Fork of Little River, Durham County, North Carolina:** V. Akudoro (Old Dominion University) Speaker: Victor Akudoro
- Station H....**The paleogeographic evolution of the South Atlantic during the Early Cretaceous: A more complex story than we thought:** P. J. Markwick<sup>1</sup>, D. Paton<sup>2</sup>, M. C. Araujo<sup>3</sup>, J. Naliboff<sup>4</sup>, T. Rajaonarison<sup>4</sup> (1. Knowing Earth; 2. Tectonknow; 3. Petrobras; 4. New Mexico Tech) Speaker: Paul Markwick

### INT P7 New Exploration Aspects

3:40 p.m.–5:20 p.m.

*Session Chairs: Shashin Sharan and Jonathan Stewart*

**Location: Poster Location 5 (on the 3rd level)**

- Station E....**Distribution and controls of hydrocarbon seepage in the Gulf of America:** M. Lawal<sup>1</sup>, A. E. Cook<sup>1</sup>, A. Portnov<sup>2</sup>, A. Kumar<sup>1</sup> (1. The Ohio State University; 2. Instituto Andaluz de Ciencias de la Tierra) Speaker: Muhedeen Lawal
- Station F....**The favourable exploration direction and accumulation conditions of the high-energy Granular beach in the first section of the Canglangpu Formation in northern Sichuan basin:** Q. Jiang, H. Jiang, S. Huang, W. Lu (Research Institute of Petroleum Exploration & Development) Speaker: Hua Jiang
- Station G....**Salt-sediment interactions revisited: How do near-salt reservoir prediction frameworks compare?:** D. Lankford-Bravo, P. Morris, A. Omale, J. Miller, F. McFarlin, P. Hargrove (bp) Speaker: David Lankford-Bravo
- Station H....**Evaluation of hydrocarbon potential in the Egyptian Red Sea: A focus on the southern province and implications for future exploration:** N. K. Aref<sup>1</sup>, C. Tu<sup>2</sup>, S. AbdelRahim<sup>1</sup>, A. Galil<sup>1</sup>, f. ragheb<sup>1</sup>, W. Badr<sup>2</sup>, A. Mostafa<sup>1</sup>, R. B. Nafea<sup>2</sup>, M. Hassan<sup>1</sup> (1. Ganope; 2. SLB) Speaker: Nourhan Aref



# Poster Sessions

Tuesday, 26 August

## INTD P1 Seismic Data Integration and Utilization 2

3:40 p.m.–5:20 p.m.

Session Chairs: Jacob Jackson and Shuzhen Ye

Location: Poster Location 3 (on the 3rd level)

Station E....**System and Methods for Intelligent Data Discovery and Global Basin Analytics on OSDU**: P. Saraswat (Querent AI LLC) Speaker: Puneet Saraswat

Station F....**Exploration Technology Fusion: Connecting Subsurface Data to HPC Insights**: J. Hisee<sup>3</sup>, P. Thompson<sup>3</sup>, A. Huang<sup>2</sup>, Y. Gubanov<sup>1</sup>, D. Tishechkin<sup>1</sup> (1. Amazon Web Services; 2. Seagate Technology; 3. Petrosys | Interica) Speaker: Yuriy Gubanov

Station G....**Prospect assessment: Enhancing data integration and domain collaboration**: M. Neumaier, B. Kurtenbach, I. Bryant (Ariane Logix) Speaker: Martin Neumaier

Station H....**Top Three Plays: Performance and Resource Analysis of Bakken, Eagle Ford, and Wolfcamp**: R. Sorkhabi, P. Panja, M. Deo (University of Utah) Speaker: Rasoul Sorkhabi

## SP P5 Elastic Data

3:40 p.m.–5:20 p.m.

Session Chairs: Chaoguang Zhou and Feng Zhu

Location: Poster Location 3 (in the Exhibit Hall)

Station E....**SV/SH or S1/S2 separation for 4C SS-wave seismic data with non-orthogonal horizontal sources**: Y. Yue (BGP) Speaker: Yuanyuan Yue

Station F....**Data-domain Separation of P- and S- waves in Marine Seismic Exploration through Helmholtz Decomposition and Downward Continuation**: H. Hong, S. Choi, Y. Cho (Seoul National University) Speaker: Heeju Hong

Station G....**Application of OVT Domain Azimuthal Imaging Technology in the Detailed Characterization of Carbonate Fracture-Cavity Reservoir**: L. Zheng, S. Zhang, B. Zhu, Q. Lv, W. Zhang, Y. Ma (Sinopec Geophysical Research Institute) Speaker: Wei Zhang

Station H....**Prediction of glutenite reservoir based on OVT dominant azimuth elastic impedance inversion**: H. Luo, C. Wang, J. Zhang, X. Guan (Exploration and Development Research Institute of Shengli Oilfield) Speaker: Hongmei Luo

## SP P6 Beam Migration and Elastic RTM

3:40 p.m.–5:20 p.m.

Session Chairs: Hongyan Li and Sam Whitehead

Location: Poster Location 4 (in the Exhibit Hall)

Station E....**Full-azimuth Imaging Technology Based on Gaussian Beam Theory**: N. Qin, J. Xiao, S. Zhang (Shengli Geophysical Research Institute of Sinopec) Speaker: Ning Qin

Station F....**Beam-driven converted wave salt halo removal**: S. Brown<sup>1</sup>, J. W. Sherwood<sup>1</sup>, K. Sherwood<sup>1</sup>, D. Hale<sup>1</sup>, S. Whitehead<sup>2</sup>, B. Duquet<sup>2</sup>, V. Duprat<sup>2</sup> (1. Geo Ex Machina; 2. TotalEnergies) Speaker: Sam Brown

Station G....**Case Studies on 3Q Migration Techniques in the Loess Plateau of the Ordos Basin, China**: F. Li, P. Duan, Y. Huang, J. Chen, L. Xu (Exploration and Development Research Institute of Changqing Oilfield Branch Company Ltd., PetroChina) Speaker: Peiran Duan

Station H....**Anisotropic Elastic Reverse Time Migration with Dynamically Focused Beams**: N. Qin, J. Xiao (Shengli Geophysical Research Institute of Sinopec) Speaker: Ning Qin

## STUD P2 Seismic Imaging and Analysis

3:40 p.m.–5:20 p.m.

Session Chairs: Yanhua Liu and Alden Netto

Location: Poster Location 2 (in the Exhibit Hall)

Station E....**Monitoring CO<sub>2</sub> leakage safety in saline aquifer using time-lapse seismic imaging**: Y. Dong, Y. Shen, Q. Mao (China University of Petroleum (East China)) Speaker: Yanjiao Dong

Station F....**Classification of Seamounts in the Northern Atlantic via joint analysis of Bathymetry and Seismic Reflection data**: M. Salman<sup>1</sup>, I. Filina<sup>2</sup> (1. University of Nebraska-Lincoln; 2. University) Speaker: Md Abdullah Salman

Station G....**One-way migration with attenuation compensation using Lloyd algorithm**: X. Liu, Y. Shen (China University of Petroleum (East China)) Speaker: Xiuchuan Liu

Station H....**Bridge monitoring using traffic-induced passive seismic data recorded by distributed acoustic sensing**: Z. Li<sup>1</sup>, Y. Shen<sup>1</sup>, X. Huang<sup>2</sup>, S. Xu<sup>2</sup>, D. Fang<sup>2</sup> (1. China University of Petroleum (East China); 2. Smart Earth Sensing (Hefei) Technology Co., Ltd.) Speaker: Ziyuan Li

## STUD P3 Innovations in Geophysical Methods

3:40 p.m.–5:20 p.m.

Session Chairs: Zhilong Fang and Wanying Wang

Location: Poster Location 7 (in the Exhibit Hall)

Station E....**Low-frequency recovery of full waveform inversion based on the collaboration of CNN and Transformer**: X. Wu (China University of Petroleum (East China)) Speaker: Xiaoyi Wu

Station F....**Crustal structures of the conjugate Vøring and Greenland margin: A multi-geophysical approach**: A. Mayeesha, K. Steinauer, I. Filina (University of Nebraska-Lincoln) Speaker: Anika Nawar Mayeesha

Station G....**Impedance inversion using bi-directional deconvolution**: L. Wang<sup>1</sup>, Y. Shen<sup>1</sup>, W. Peng<sup>1</sup>, J. Chen<sup>2</sup> (1. China University of Petroleum (East China); 2. Shanghai Jiao Tong University) Speaker: Linlin Wang

Station H....**An acoustic wave equation with velocity and density gradients and its amplitude versus angle analysis**: Z. Xu<sup>1</sup>, Y. Shen<sup>1</sup>, W. Peng<sup>2</sup> (1. China University of Petroleum (East China); 2. China University of Petroleum (East China) (Non-Author)) Speaker: Weiting Peng





## Wednesday, 27 August

### DMLA P5 Seismic Interpretation 1

8:00 a.m.–9:40 a.m.

*Session Chairs: Wen Pan and Son Phan*

**Location: Poster Location 7 (on the 3rd level)**

Station A ... **Perceptual Seismic Segmentation using Meta's Segment**

**Anything Model 2:** A. Gala, E. Bozcal (Shell) Speaker:

Apurva Gala

Station B ... **Application of t-distributed stochastic neighbor**

**embedding (t-SNE) in seismic waveform classifications in**

**central Sichuan Basin, China:** H. Yang<sup>1</sup>, Z. Zhang<sup>2</sup>, W. Wei<sup>2</sup>, Y. Wang<sup>2</sup>, M. Maheuti<sup>1</sup>, Y. Li<sup>1</sup>, J. Song<sup>1</sup> (1. Research Institute of Petroleum Exploration & Development, CNPC; 2. Research Institute of Petroleum E&D, Tarim Oil field Company, PetroChina) Speaker: Hao Yang

Station C ... **Enhanced fault identification in 3D seismic data through**

**RANSAC-based segmentation:** T. B. Grant<sup>1</sup>, P. C. Abuchi<sup>2</sup>, V.

M. Rotar<sup>1</sup> (1. Cegal AS; 2. University of Stavanger) Speaker: Vlad Rotar

Station D ... **Intelligent prediction technique for micro-fault by seismic**

**multi-attribute fusion enhancement:** X. Wang<sup>1</sup>, Y. Li<sup>1</sup>, F. Wu<sup>1</sup>, Y. Zhu<sup>1</sup>, X. Yang<sup>1</sup>, D. Zhang<sup>2</sup>, Y. Zhang<sup>1</sup> (1. CNPC; 2. Petro China Southwest Oil & Gas-field Company) Speaker: Xiaolan Wang

### GEOPS P1 From the Lab to the Project: Applying Data to Solve Problems

8:00 a.m.–9:40 a.m.

*Session Chairs: Stamatina Hunter and Constantin Sandu*

**Location: Poster Location 1 (on the 3rd level)**

Station A ... **WITHDRAWN**

Station B ... **H2 generation yield of iron bearing rocks deduced from**

**the Hydrogen-Eval open hydrous pyrolysis:** N. Bouton<sup>1</sup>, J. Ammouial<sup>1</sup>, O. Sissmann<sup>2</sup>, I. Moretti<sup>3</sup> (1. Vinci Technologies; 2. IFPEN; 3. UPPA) Speaker: Nicolas Bouton

Station C ... **Spectral gamma ray on well-cuttings for depth calibration**

**and biostratigraphic precision:** T. Boesiger, P. M. Konering, X. Liu (Ellington Geological Services) Speaker: Todd Boesiger

Station D ... **Gold tube based oil and gas extraction from shale and tight**

**cuttings at ultra-high pressure, reservoir temperature and actual fluid loadings:** S. Wu<sup>1</sup>, A. Sneddon<sup>2</sup>, F. Gou<sup>3</sup>, L. Lu<sup>1</sup>, H. Gou<sup>3</sup> (1. Power Energy and Environmental Research Institute; 2. Midcon Well Logging; 3. Solid Services) Speaker: Sheng Wu

### GEOPS P2 From Details to Big Picture

8:00 a.m.–9:40 a.m.

*Session Chairs: Adam Hoffmann and Vann Smith*

**Location: Poster Location 2 (on the 3rd level)**

Station A ... **Evaluating Gas Migration Patterns in Complex**

**Unconventional Deep Tight Gas Sandstone Formation:** M. A. Alrowaie, S. M. Qathami, M. Assadiq, Z. Almubarak (Saudi Arabian Oil Co) Speaker: Mohammad Alrowaie

Station B ... **Neoichnology of Hypersaline Environments: Evidence**

**from the Eastern Coast of Saudi Arabia:** K. Ayranci<sup>1</sup>, I. A. AlHilali<sup>1</sup>, A. Abdmusalib<sup>2</sup>, S. D. Prayudi<sup>1</sup>, M. A. Kaminski<sup>1</sup>, A. D. LaCroix<sup>3</sup>, S. E. Dashtgard<sup>4</sup> (1. King Fahd University of Petroleum and Minerals; 2. College of Petroleum

Engineering and Geosciences; 3. Sedimentary Environments and Analogues Research Group, Earth and Environmental Sciences; 4. Simon Fraser University) Speaker: Korhan Ayranci

Station C ... **A chemometric machine learning framework for oil**

**classification: A California case study:** K. A. Bennett, A. Vielma, J. Curiale, T. B. Malloy, J. Radovic (University of Houston) Speaker: Kyra Bennett

Station D ... **Machine Learning for Predicting Geochemical Composition**

**in the Middle to Upper Devonian Horn River Shale: A**

**Data-Driven Approach to Subsurface Characterization:** A.

Abdmusalib<sup>1</sup>, K. Ayranci<sup>1</sup>, U. Waheed<sup>1</sup>, N. B. Harris<sup>2</sup> (1. King Fahd University of Petroleum and Minerals; 2. University of Alberta) Speaker: Ammar Abdmusalib

### RC P1 Geomorphology

8:00 a.m.–9:40 a.m.

*Session Chairs: Francisco Bolivar and Huyen Bui*

**Location: Poster Location 5 (on the 3rd level)**

Station A ... **Fine characterization technique of concealed channel**

**driven by time-frequency domain data:** S. Dai, Z. Sun, J. Tang, J. Li, T. Zhu, H. Hu (Sinopec Geophysical Research Institute Co., Ltd.) Speaker: Tong Zhu

Station B ... **Seismic attribute analysis for subtle structural and**

**stratigraphy features in the Miocene-Pliocene Agbada**

**Formation, offshore Niger Delta:** O. F. Obasuyi<sup>1</sup>, K. Doro<sup>3</sup>,

A. Olubola<sup>2</sup>, E. S. Akanbi<sup>4</sup>, Y. A. Adeyemi<sup>5</sup> (1. University of Basilicata; 2. Federal University of Technology; 3. University of Toledo; 4. University of Jos; 5. Ulster University) Speaker: Osasogie Obasuyi

Station C ... **Multispectral UAS-Based Analysis of Fluvial Sandstones**

**and Stratigraphic Architecture of the Upper Cretaceous**

**Williams Fork Formation, CO:** J. Tellez, M. Bishop (Colorado

Mesa University) Speaker: Maddie Bishop

Station D ... **WITHDRAWN**

### RC P2 Applications 1

8:00 a.m.–9:40 a.m.

*Session Chairs: Umberto Barbato and Jessica Matthews*

**Location: Poster Location 6 (on the 3rd level)**

Station A ... **Geomechanical property evaluation of the Pennsylvanian**

**Strawn-Canyon Group using machine-learning methods:**

**Insights from the Salt Creek Field, Midland Basin, Kent**

**County, West Texas:** O. Ogiesoba (Bureau of Economic

Geology, The University of Texas at Austin) Speaker: Osareni Ogiesoba

Station B ... **Advancements in Petrophysics: Data-Driven Lithofacies**

**Identification in Cretaceous Sandstone Using Supervised**

**Machine Learning:** M. Malik<sup>1</sup>, J. Leung<sup>1</sup>, M. Malik<sup>2</sup>, M.

T. Malik<sup>3</sup>, M. A. Haider<sup>3</sup> (1. University of Alberta; 2. Pakistan Oilfield Limited; 3. University of Punjab) Speaker: Muhammad Bilal Malik

Station C ... **Development of a 1D Mechanical Earth Model and Fracture**

**Analysis at the HFTS-1 Site, Midland Basin:** B. Sasmaz, C.

M. Sayers, Y. Zheng (University of Houston) Speaker: Bilge

Sasmaz

Station D ... **Application of multi-scale thin reservoir comprehensive**

**prediction based on multi-information fusion in the HQ**

**Block:** Y. Yuan<sup>1</sup>, H. Zhang<sup>1</sup>, Z. Chen<sup>1</sup>, W. Xiao<sup>2</sup>, P. Gao<sup>1</sup>, W.

# Poster Sessions

Wednesday, 27 August

Jiao<sup>2</sup>, P. Guo<sup>1</sup>, W. Li<sup>1</sup>, P. Cheng<sup>1</sup>, Y. Zhang<sup>1</sup>, P. Wang<sup>1</sup>, X. Jia<sup>1</sup> (1. BGP, CNPC; 2. Yumen Oilfield) Speaker: Yunchao Yuan

## USC P1 Studies of Geologic and Geophysical Processes: Permian Basin and Eastern Shelf System 2

8:00 a.m.–9:40 a.m.

Session Chairs: Cucha Lopez and Mitch Schneider

Location: Poster Location 3 (on the 3rd level)

- Station A ...**Correlation of Jurassic source rocks and basin evolution of the North Slope and Southern Alaska:** E. D. Ruiz Toro, P. Mann (University of Houston) Speaker: Estefani Ruiz Toro
- Station B ...**Improving estimates of recoverable oil with increased drilling density through applying 3D property volumes:** C. A. Snow<sup>1</sup>, M. Mayer<sup>2</sup>, K. Gonzalez<sup>2</sup> (1. Danomics Inc; 2. TGS) Speaker: Matt Mayer
- Station C ...**Salt-Water Disposal Associated Seismicity in a Proterozoic Fold and Thrust Front, Delaware Basin, New Mexico:** C. J. Lopez (ExxonMobil) Speaker: Carlos Lopez
- Station D ...**An unconventional approach – fit for purpose geologic modeling in the Poker Lake Unit, Delaware Basin, New Mexico:** T. Moraes (ExxonMobil) Speaker: Tony Moraes

## USC P2 Studies of Geologic and Geophysical Processes: North America

8:00 a.m.–9:40 a.m.

Session Chairs: Anubhav Kohli and Travis Moreland

Location: Poster Location 4 (on the 3rd level)

- Station A ...**Compressional Tectonics and Fracture Patterns of Redtail Area, Denver Basin:** C. Sahinkaya Akyol, S. Sonnenberg (Colorado School of Mines) Speaker: Ceyhan Sahinkaya Akyol
- Station B ...**Statewide assessment of CO<sub>2</sub> storage capacity for the lower Paleozoic strata, Oklahoma:** A. Turnini, M. J. Pranter (University of Oklahoma) Speaker: Anna Turnini
- Station C ...**Direct Lithium Extraction (DLE) in the United States – technical and regulatory challenges, and potential environmental implications:** R. Russell, S. Bhattacharya, D. Kingham, L. Molofsky (GSI Environmental Inc.) Speaker: Roberta Russell
- Station D ...**Teapot Dome Oil Field Characterization Using the Reverse Time Holography Method:** G. N. Erokhin (Geomex Technologies) Speaker: Gennady Erokhin

## BH P1 Seismic

10:20 a.m.–12:00 p.m.

Session Chairs: Brian Hornby and Michel Verliac

Location: Poster Location 3 (in the Exhibit Hall)

- Station E ...**Application of integrated borehole-surface acquisition technology in unconventional oil and gas exploration in Songliao Basin:** C. Ding (Optical Science and Technology (Chengdu) Ltd.) Speaker: Chuanqi Ding
- Station F ...**Continuous DAS-VSP during CCUS operations using Portable Active Seismic Source:** S. Nakayama<sup>1</sup>, T. Uchigaki<sup>1</sup>, A. Takahashi<sup>2</sup>, T. Tsuji<sup>3</sup>, J. Kinoshita<sup>2</sup>, T. Hamajima<sup>2</sup>, T. Mouri<sup>4</sup> (1. INPEX Corporation; 2. Wavelet, Inc.; 3. The University of Tokyo; 4. JOGMEC) Speaker: Shotaro Nakayama
- Station G ...**Disposable fiber delivers robust near-surface velocity profile in a shallow water-supply well:** A. AlDawood,

A. Shaiban, E. Alfataierge (Saudi Aramco) Speaker: Ali AlDawood

- Station H ...**Near wellbore monitoring in EGS using fiber optic sensing and seismic interferometry:** X. Zhu<sup>1</sup>, J. Ajo-Franklin<sup>1</sup>, M. Chamarczuk<sup>2</sup>, Y. Ma<sup>1</sup> (1. Rice University; 2. Los Alamos National Laboratory) Speaker: Xiaoyu Zhu

## FWI P7 Novel Approaches and Workflows 1

10:20 a.m.–12:00 p.m.

Session Chairs: John Brittan and Changhua Zhang

Location: Poster Location 6 (in the Exhibit Hall)

- Station A ...**Deep learning full waveform inversion with dynamic matching filtering:** C. Li, S. Fomel, Y. Chen (University of Texas at Austin) Speaker: Chao Li
- Station B ...**High-resolution full waveform inversion focused on target area by using the visco-acoustic redatumed data:** Z. Yan, Y. Li (China University of Petroleum (East China)) Speaker: Zhuoqi Yan
- Station C ...**Neural representation-based waveform inversion via coupled foundational and generative networks:** R. Harsuko, S. Cheng, T. Alkhalifah (King Abdullah University of Science and Technology) Speaker: Randy Harsuko
- Station D ...**Full-waveform inversion with a symmetric-form acoustic VTI wave equation:** G. Yao, B. Wu, P. Zhang, N. Liu, D. Wu (China University of Petroleum (Beijing)) Speaker: Gang Yao

## GEOPS P3 Petroleum System Applications for Exploration

10:20 a.m.–12:00 p.m.

Session Chairs: Josh Brownlow and Poorna Srinivasan

Location: Poster Location 1 (on the 3rd level)

- Station E ...**Advancing Techniques for Assessing Changes in Geological Properties Associated with CO<sub>2</sub> Sequestration Using Micro-CT Imaging:** G. C. Thakur, M. Khan, D. Siddiqui, L. Hathon (University of Houston) Speaker: Muhammad Khan
- Station F ...**Anomalous hydrogen and noble gas isotope trends in the thermally overmature Marcellus Formation natural gases, Allegheny structural front, North-Central Appalachian orogen USA:** C. D. Laughrey<sup>1</sup>, M. T. Moore<sup>1</sup>, E. Hudson<sup>2</sup>, D. Vance<sup>2</sup> (1. Stratum Reservoir; 2. Inflection Energy) Speaker: Christopher Laughrey
- Station G ...**Distribution and Exploration Prospects for the Global Lithostratigraphic Reservoirs:** Z. Li (PetroChina) Speaker: Zhi Li
- Station H ...**Geologic Evolution of the Central Basin Platform, Diablo Platform, and Delaware Basin Depocenter Based on Measured Vitrinite Reflectance and Apatite Fission Track Analysis:** A. Buffington, M. Becker, J. Laya (Texas A&M University) Speaker: Allison Buffington

## NS P3 Fiberoptic Sensing

10:20 a.m.–12:00 p.m.

Session Chairs: Rui Zhang and Tiejuan Zhu

Location: Poster Location 7 (in the Exhibit Hall)

- Station A ...**Semi-automated near-surface characterization using ambient noise Distributed Acoustic Sensing (DAS) data:** N. Punithan<sup>1</sup>, E. Martin<sup>1</sup>, J. C. Shragge<sup>1</sup>, A. Tourei<sup>1</sup>, I. Lim Chen Ning<sup>2</sup> (1. Colorado School of Mines; 2. Chevron) Speaker: Nikhil Punithan





## Wednesday, 27 August

Station B ...**Deciphering Urban Pulsations: Passive Seismic Imaging Based on Distributed Acoustic Sensing (DAS)**: K. Zhao, F. Cheng, J. Guan (Zhejiang University) Speaker: Ke Zhao

Station C ...**Sensing environmental conditions in fiber-optic DAS and DTS using a field study of varying installation**: S. Sayyadi<sup>1</sup>, C. Kratt<sup>1</sup>, M. Hausner<sup>3</sup>, E. Martin<sup>2</sup>, M. E. Wengrove<sup>4</sup>, H. E. Glover<sup>4</sup>, A. Harpold<sup>1</sup> (1. University of Nevada; 2. Colorado School of Mines; 3. Desert Research Institute; 4. Oregon State University) Speaker: Sara Sayyadi

Station D ...**Data-driven Road Condition Monitoring from Continuous DAS Data**: J. Wang<sup>1</sup>, Y. Li<sup>1</sup>, T. Zhu<sup>2</sup> (1. Purdue University; 2. Penn State University) Speaker: Jiquan Wang

### NS P4 Hydrogeophysical Applications

10:20 a.m.–12:00 p.m.

*Session Chairs: Marco Couto and Raymond Hess*

**Location: Poster Location 7 (in the Exhibit Hall)**

Station E....**Quantifying surface-subsurface water fluxes in an intermittent stream using self-potential measurements and a coupled hydrological-electrical model**: M. B. Adebayo<sup>1</sup>, M. Dumont<sup>1</sup>, S. Rathore<sup>2</sup>, S. L. Painter<sup>2</sup>, E. Herndon<sup>2</sup>, E. Pierce<sup>2</sup>, K. Singha<sup>1</sup> (1. Colorado School of Mines; 2. Oak Ridge National Laboratory) Speaker: Moses Adebayo

Station F....**Multichannel Analysis of Surface Waves for S-Wave Inversion in Dam Leakage Detection with Distributed Acoustic Sensing**: S. Hao<sup>1</sup>, Y. Shen<sup>1</sup>, Y. Liu<sup>2</sup>, H. Hu<sup>2</sup> (1. China University of Petroleum (East China); 2. Ningbo AllianStream Photonics Technology Co., Ltd) Speaker: Shengnan Hao

Station G ...**Imaging seawater infiltration pathways with frequency domain electromagnetic data: A case study of data acquired from the Saemangeum Seawall crest**: H. Kang, S. Seol, J. Byun (Hanyang University) Speaker: Hyeonwoo Kang

Station H ...**Integrated geophysical and hydrogeological study of groundwater resources in Saraya, Kédougou: Combining scientific research and community education**: M. Fall (UCAD) Speaker: Mame Diarra Fall

### RC P3 Applications in Carbonates

10:20 a.m.–12:00 p.m.

*Session Chairs: Kimbra Quezergue and Simon Voisey*

**Location: Poster Location 5 (on the 3rd level)**

Station E....**Weakly Supervised Two-Step CNN for Karst Cave Detection and High-Production Sweet Spot Prediction in Carbonate Reservoirs**: H. Wang<sup>1</sup>, S. Cai<sup>1</sup>, C. Dai<sup>1</sup>, Z. Chen<sup>1</sup>, Y. Xiao<sup>2</sup> (1. Petroleum Exploration and Production Research Institute, SINOPEC; 2. Sinopec) Speaker: Han Wang

Station F....**Quantitative characterization method for paleokarst channel thickness based on frequency attenuation gradient**: H. Lv, L. Yin, C. Zhang, Z. Sun (Sinopec Geophysical Research Institute Co.,Ltd) Speaker: Hui Lv

Station G ...**Formation-Specific Porosity–Seismic Statistical Analysis in the Delaware Basin for CO<sub>2</sub> Storage Applications**: T. Ude-Akpeh<sup>1</sup>, C. Onyeakusi<sup>1</sup>, J. Lee<sup>1</sup>, R. Trentham<sup>1</sup>, M. Henderson<sup>1</sup>, C. Cagle<sup>2</sup>, R. Dupree<sup>2</sup> (1. University of Texas Permian Basin; 2. Omnia Midstream Partners) Speaker: Jake Lee

### RP P3 Machine Learning and Digital Rock Applications

10:20 a.m.–12:00 p.m.

*Session Chairs: Gama Firdaus and Laurent Louis*

**Location: Poster Location 6 (on the 3rd level)**

Station E....**Seismic fault identification using a hybrid resnet-unet architecture**: J. Lalngaihawma, S. Kalyankar, A. Malkoti, N. Vedanti (CSIR-National Geophysical Research Institute) Speaker: Joseph Lalngaihawma

Station F....**Prediction of 3D fluid velocity fields in fractured media using multiscale network for hierarchical regression (ms-net)**: Q. Zhou, X. Ma, M. Prodanović, M. Pyrcz (University of Texas at Austin) Speaker: Qianqian Zhou

Station G ...**More Than Chatbots: Exploring Reservoir Properties Estimation with LLM**: T. Lin<sup>1</sup>, W. Li<sup>1</sup>, A. Al-Ali<sup>2</sup> (1. Aramco Americas: Aramco Research Center – Houston; 2. Aramco) Speaker: Tao Lin

Station H...**Bayesian Inversion of Fracture Networks Using rjMCMC on Fluid dynamic and Seismic Data**: S. Al Nasser (Saudi Aramco) Speaker: Saleh Al Nasser

### RP P4 Modeling and Applications

10:20 a.m.–12:00 p.m.

*Session Chairs: Stephan Gelinsky and Mandy Schindler*

**Location: Poster Location 7 (on the 3rd level)**

Station E....**Dynamic-static elastic parameters transformation models for lacustrine shales in PG aera**: M. L. Y. Wang, H. Shen, C. Li, W. Fan (SINOPEC Geophysical Research Institute, Co., Ltd) Speaker: Min Li

Station F....**Effects of crack distribution characteristics on the elastic properties of multiple-cracked rocks**: J. Cheng<sup>1</sup>, Y. Li<sup>1</sup>, K. Zhang<sup>2</sup>, X. Xu<sup>2</sup>, C. Zhang<sup>1</sup>, Y. Chen<sup>1</sup> (1. Research Institute of Petroleum Exploration and Development; 2. CNPC Andes (Ecuador) Company Limited) Speaker: Jiwei Cheng

Station G ...**Role of seismically derived porosity prediction in the formulation of enhanced field development strategy in Ratawi formation, Khafji Offshore Field**: A. F. Al-Awadhi<sup>1</sup>, O. Aly<sup>2</sup>, A. Al-Sultan<sup>1</sup> (1. Khafji Joint Operation; 2. SLB) Speaker: Ahmad Al-Awadhi

Station H...**Elastic property statistics: Does scale matter?**: V. L. De Mello, K. Spikes (The University of Texas at Austin) Speaker: Vitor De Mello

### SILIC P1 Advanced Techniques in Sedimentary System Analysis

10:20 a.m.–12:00 p.m.

*Session Chairs: Kevin Bohacs and Mauricio Perillo*

**Location: Poster Location 2 (on the 3rd level)**

Station E....**Satellite-Based Delta Characterization via Latent Space**: N. Chacon Buitrago (UT Austin) Speaker: Nataly Chacon Buitrago

Station F....**An integrated approach to understanding geological controls on sand connectivity and stratigraphic trap formation in deep-water sedimentary systems**: T. C. Empinotti<sup>2</sup>, D. M. Hodgson<sup>1</sup>, C. M. Hercos<sup>2</sup> (1. University of Leeds; 2. Petrobras) Speaker: Thais Empinotti

Station G ...**Multidisciplinary Characterization of the lower Jilh Formation**: Insights from central Saudi Arabia: K. Ayranci, L. A. Insuasti (King Fahd University of Petroleum and Minerals) Speaker: Korhan Ayranci



# Poster Sessions

Wednesday, 27 August

Station H...**South Viking Graben, Norway: Play potential of deep Upper Jurassic mass transport complex (MTC) revealed by multi-azimuth and ocean bottom node seismic data:** E. Mueller, J. Beenfeldt (TGS) Speaker: Eric Mueller

## SMT P1 Seismic Applications, Tomography, Geological Interpretation, and Stratigraphy

10:20 a.m.–12:00 p.m.

*Session Chairs: James McLeman and Peng Shen*

**Location: Poster Location 1 (in the Exhibit Hall)**

Station E...**A Novel Shortest-Path Fast Sweeping Method for High-Accuracy Traveltime Calculation:** J. Zhang<sup>1</sup>, L. Dong<sup>2</sup>, Y. Liu<sup>2</sup>, P. Han<sup>2</sup> (1. Key Lab of Submarine Geosciences and Prospecting Techniques, MOE and College of Marine Geosciences, Ocean University of China; 2. Tongji University) Speaker: Jianming Zhang

Station F...**Multimodal Stochastic Characterization of Subsurface Angle Gathers with Applications to Diffraction Imaging of Karsts:** M. Maharramov, B. Yu, V. Lopez, M. Zhou (Sinopec Tech Houston) Speaker: Musa Maharramov

Station G...**Analysis of the impact of migration velocity variations on seismic response characteristics of karst-cavity reservoirs:** Y. Yuan<sup>1</sup>, H. Zhang<sup>2</sup> (1. Sinopec Geophysical Research Institute CO., LTD; 2. China University of Petroleum, Karamay Campus (Non-Author)) Speaker: Haoran Zhang

## SMT P2 Reverse Time Migration, Multiple Imaging, and Elastic Imaging and Model-building

10:20 a.m.–12:00 p.m.

*Session Chairs: Xiang Li and Michael McGlashan*

**Location: Poster Location 2 (in the Exhibit Hall)**

Station E...**3D elastic RTM via efficient tensor decomposition-guided wavefield compression:** Y. Tang (Southern University of Science and Technology) Speaker: Yongjie Tang

Station F...**Seismic forward modelling and reverse time migration of order-separated free surface multiples using dipole source approximation:** Z. Wang<sup>1</sup>, J. Yang<sup>1</sup>, J. Zhang<sup>1</sup>, H. Zheng<sup>2</sup> (1. Sinopec Geophysical Research Institute; 2. Sinopec Geophysical Research Institute (Non-Author)) Speaker: Hao Zheng

Station G...**Modeling water-layer-related multiples in ocean-bottom surveys and investigating associated elastic imaging artifacts caused by crosstalk:** B. Han<sup>1</sup>, W. Mao<sup>1</sup>, X. Xie<sup>2</sup> (1. Innovation Academy for Precision Measurement Science and Technology, CAS; 2. University of California Santa Cruz) Speaker: Bingkai Han

Station H...**Dual-Complex Model building and Seismic Simulation for Western China:** W. Wu, L. Peiming, H. Yu, Y. Liu, Y. Fang, H. Zhao (BGP Inc., CNPC) Speaker: Wei Wu

## SP P7 Complex and Diffraction Imaging

10:20 a.m.–12:00 p.m.

*Session Chairs: Yang Liu and Feng Zhu*

**Location: Poster Location 4 (in the Exhibit Hall)**

Station E...**Relation between dips of prestack time migrated and unmigrated data: 3D case:** J. Singh (ONGC Ltd.) Speaker: Jagmeet Singh

Station F...**Considering temporal variations in seismic data for deep Learning-Based diffraction extraction:** J. Park<sup>1</sup>, S. Kim<sup>2</sup>, S.

Seol<sup>1</sup>, J. Byun<sup>1</sup> (1. Hanyang University (RISE.ML); 2. Korea Institute of Geoscience and Mineral Resources) Speaker: Junyon Park

Station G...**Fresnel steady-state diffraction imaging on dip angle gather for fracture-cave reservoirs:** Z. Liu, T. LIU (Sinopec Petroleum Exploration and Production Research Institute) Speaker: Zhi Yuan Liu

Station H...**Local Directional Projection (LDP) specularity weights for enhancing and characterizing seismic reflectivity images:** O. Kletenik-Edelman, A. Zaslavsky, M. Shustak, R. Levy, Z. Koren (AspenTech) Speaker: Orly Kletenik-Edelman

## SP P8 Imaging Enhancement

10:20 a.m.–12:00 p.m.

*Session Chairs: Thais Sales and Charles Ursenbach*

**Location: Poster Location 5 (in the Exhibit Hall)**

Station E...**Seismic denoising based on self-supervised guided filter network:** B. Ni<sup>1</sup>, X. Wang<sup>1</sup>, Y. Sui<sup>2</sup> (1. Beijing Jiaotong University; 2. Aramco Research Center - Beijing) Speaker: Baoli Ni

Station F...**Deep learning framework for the removal of low-frequency noise from reverse time migration:** D. Deng, Y. Liu, G. Chen (China University of Petroleum (Beijing)) Speaker: Dingding Deng

Station G...**Imaging improvement for towed-streamer data using OBN data based on deep learning:** H. Zhang, Z. Li, P. Wang, Z. He, Q. Zhang, Z. Yu, B. Zhao (China University of Petroleum) Speaker: Zhina Li

Station H...**High-Resolution Processing of Seismic Data Based on Stratigraphic Constraints Using 3D U-Net:** N. Xi, Z. Cao, Y. Liu (China University of Petroleum - Beijing) Speaker: NianXu Xi

## STGM P1 Faults, Fractures, and Fluids 4

10:20 a.m.–12:00 p.m.

*Session Chairs: David Forand and Eric Peavey*

**Location: Poster Location 3 (on the 3rd level)**

Station E...**WITHDRAWN**

Station F...**Effect of dissolution-promoting, pore-expanding and permeability-increasing by structural fractures of ultra-deep sandstone in Kuqa depression, NW China:** Q. Zeng, L. Zhang (China University of Petroleum (East China)) Speaker: Qinglu Zeng

Station G...**Fracturing in basinal siliciclastic sedimentary deposits of the Wolfcampian Alta Formation, Marfa Basin, west Texas:** D. A. Ferrill<sup>1</sup>, K. Smart<sup>1</sup>, A. Cawood<sup>1</sup>, D. Lehrmann<sup>2</sup>, G. Zanon<sup>3</sup>, R. King<sup>3</sup> (1. Southwest Research Institute; 2. Trinity University; 3. RohmTek) Speaker: David Ferrill

Station H...**Deep learning-based approach to mapping fault density on seismic data:** T. Q. Agbaje (University of Texas at Austin) Speaker: Tolulope Agbaje

## STGM P2 Petroleum System Tectonics and Structural Styles: Lithosphere to Thin Section 2

10:20 a.m.–12:00 p.m.

*Session Chairs: Alissa Henza and Yanpeng Sun*

**Location: Poster Location 4 (on the 3rd level)**

Station E...**Enhancement of gravity data for the geological characterization of the continental margin of southeastern**





## Wednesday, 27 August

**Brazil:** K. Sampaio, L. G. Miquelutti, M. Cetale (Fluminense Federal University) Speaker: Leonardo Miquelutti

Station F... **Temporal Fractal Strain Localization in the Non-Volcanic Albertine Rift Basin Using Seismic and Well Data:** O. I. Abbey, A. B. Katumwehe (Oklahoma State University) Speaker: Oluwasegun Abbey

Station G... **Who's fault is this? It's not my fault: A study on the importance of fault seal analysis during exploration, drilling and production in the Columbus Basin, offshore Trinidad:** K. James<sup>1</sup>, T. Gunness<sup>2</sup> (1. bpTT; 2. bp (Non-Author)) Speaker: Tracy Gunness

Station H... **De-risking reservoir compartmentalisation in the Santos Basin through holistic fault segmentation analysis:** A. K. Ribeiro<sup>2</sup>, J. A. Souza<sup>1</sup>, D. Hemingway<sup>3</sup>, V. O'Connor<sup>3</sup>, A. L. Rigueti<sup>4</sup>, H. de Vries<sup>5</sup>, A. Malinovsky<sup>5</sup>, L. V. de Andrade Souza<sup>6</sup> (1. Petrobras; 2. Petrobras; 3. Petrotechnical Data Systems Ltd; 4. Petrobras; 5. Petrotechnical Data Systems B.V.; 6. Universidade Federal Fluminense) Speaker: Leonardo de Andrade Souza

### TL P2 Analysis using Machine Learning 1

10:20 a.m.–12:00 p.m.

*Session Chairs: Obi Egbue and Aiden Shen*

**Location: Poster Location 6 (in the Exhibit Hall)**

Station E... **Innovative Machine Learning with Bayesian Uncertainty Quantification for Dynamic Reservoir Property Estimation: A Pilot Study on an Offshore Oil Field in Nigeria:** C. Li<sup>1</sup>, J. Chen<sup>1</sup>, C. Hagbo<sup>1</sup>, M. Amaru<sup>1</sup>, Q. Sun<sup>2</sup>, O. Lolomari<sup>2</sup>, E. Ejika<sup>2</sup>, A. Oshinubi<sup>2</sup>, A. Ikeneku<sup>2</sup> (1. Chevron; 2. Star Deep Water Petroleum Limited) Speaker: Chang Li

Station F... **Convolution Neural Networks for Fault Interpretation on 4D data – Atlantis Field:** H. Garcia<sup>1</sup>, C. Wendland<sup>2</sup>, D. Eddy<sup>2</sup>, K. Wrobel<sup>2</sup> (1. Geoteric; 2. Woodside Energy) Speaker: Hugo Garcia

Station G... **Cost-effective time-lapse seismic characterization of fracture dynamic changes:** H. Hu<sup>1</sup>, Y. Zhang<sup>2</sup>, X. Fang<sup>3</sup>, T. Chen<sup>3</sup>, Y. Zheng<sup>4</sup> (1. University of Oklahoma; 2. U.S. Geological Survey; 3. SensorEra Inc; 4. University of Houston) Speaker: Hao Hu

Station H... **Estimation of carbon dioxide saturation from angle stacks using deep learning:** S. Swaminadhan<sup>1</sup>, S. Fomel<sup>1</sup>, S. Bakhshian<sup>2</sup> (1. University of Texas at Austin; 2. Rice University) Speaker: Sujith Swaminadhan

### BH P2 Advances in Borehole Data Processing and Modeling 1

1:20 p.m.–3:00 p.m.

*Session Chairs: Matthew Blyth and Edgar Velez*

**Location: Poster Location 3 (in the Exhibit Hall)**

Station A... **Tubing eccentricity evaluation using the third interface echo:** B. Cabella, R. Wang, Y. Ge, F. H. de Araujo, X. Wu (Halliburton) Speaker: Brenno Cabella

Station B... **Borehole acoustic traveltime tomography with the adjoint-state method for near-borehole slowness reconstruction:** F. Xia<sup>2</sup>, A. Bolshakov<sup>1</sup>, G. Gallardo Giozza<sup>2</sup>, C. Verdin<sup>2</sup> (1. Chevron; 2. The University of Texas at Austin) Speaker: Feiyue Xia

Station C... **Acoustic Logging-While-Drilling Isolator Design: A Simplified Model:** T. Geerits, W. Weinzierl, S. Schimschal, A. Swiatek (Baker Hughes) Speaker: Tim Geerits

Station D... **Borehole deep electromagnetic data in the form of apparent conductivity:** G. Wang (SLB) Speaker: Gong Li Wang

### BM P1 Modeling Fluids Systems

1:20 p.m.–3:00 p.m.

*Session Chairs: Lukasz Krawczynski and Jianchang Liu*

**Location: Poster Location 5 (on the 3rd level)**

Station A... **Evaluating CO<sub>2</sub> Storage Opportunities in Alabama State Waters of the Gulf of Mexico:** J. Leierzapf, G. Casanova, J. W. Koster, M. Meyer (Advanced Resources International) Speaker: Jeremy Leierzapf

Station B... **Geologic basement sweetspots for natural hydrogen and helium in Texas: A spatial analysis:** E. Rodriguez Calzado, S. Saleh, E. A. Horne (The University of Texas at Austin) Speaker: Edna Rodriguez Calzado

Station C... **Impact of lithostratigraphic and depositional model architectures on static and dynamic carbon dioxide resource assessment in the eastern San Joaquin Basin, California:** C. Depel<sup>1</sup>, V. Smith<sup>1</sup>, M. Zulqarnain<sup>1</sup>, Z. M. Cotter<sup>1</sup>, C. Johnson<sup>2</sup>, R. Ness<sup>1</sup>, D. Bryant<sup>1</sup>, M. Valluri<sup>1</sup> (1. Advanced Resources International, Inc; 2. University of Utah) Speaker: Charlie Depel

### BM P2 Seismic Stratigraphy, CO<sub>2</sub> and Geothermal

1:20 p.m.–3:00 p.m.

*Session Chairs: David Tett and Carlos Uroza*

**Location: Poster Location 6 (on the 3rd level)**

Station A... **Leveraging shelf-to-basin seismic stratigraphy in static earth model applications: Pennsylvanian-Permian (Wolfcampian and Leonardian) mixed systems of the Midland Basin:** R. Holman, A. Eljalafi, A. Bonilla-Rodriguez, C. Harman (Ovintiv) Speaker: Robert Holman

Station B... **Evaluating the potential for CO<sub>2</sub> sequestration and low enthalpy geothermal energy in the Midyan Basin, northern Red Sea:** J. Zerpa, J. Ye, G. Baby, A. Delaunay, A. Afifi (KAUST) Speaker: Jordania Zerpa

### CAEV P1 Porosity and Permeability

1:20 p.m.–3:00 p.m.

*Session Chairs: Joseph El-Azzi and Ben Rendall*

**Location: Poster Location 1 (on the 3rd level)**

Station A... **Permeability variations in simple pore geometries: Integrating acoustic velocity, electrical resistivity, and digital image analysis:** R. Weger, G. Eberli (University of Miami) Speaker: Ralf Weger

Station B... **Characterization of Compartmentalized Shallow Marine Carbonates: Pennsylvanian and Early Permian Strata of the Denver Embayment, Nebraska and Northeast Colorado:** B. V. Stroud, B. Price, C. Bowie, J. O'Brien (Devon) Speaker: Brittany Stroud

Station C... **Micro-heterogeneity characterization of Cambrian carbonate reef-shoal reservoirs in the eastern Tarim Basin based on computed tomography imaging:** Y. Liu<sup>1</sup>, X. He<sup>1</sup>, B. Yan<sup>1</sup>, K. H. Liu<sup>2</sup> (1. Research Institute of Exploration and Development, PetroChina Daqing Oilfield Co. Ltd.; 2. Missouri University of Science and Technology) Speaker: Yutong Liu

# Poster Sessions

Wednesday, 27 August

Station D ...**Deciphering reservoir heterogeneity in the Lower Cretaceous tidal-flat carbonates: Interplay of paleoclimatic change, depositional and diagenetic processes, and oil field formation in a giant oil field offshore Abu Dhabi, U.A.E.:** K. Yamamoto<sup>1</sup>, H. Montani<sup>4</sup>, J. Alsabeai<sup>2</sup>, S. Alshamsi<sup>2</sup>, G. Mosekiemang<sup>3</sup>, H. Takayanagi<sup>3</sup>, Y. Iryu<sup>3</sup> (1. INPEX Corporation; 2. ADNOC Offshore; 3. Tohoku University; 4. ADNOC Offshore/INPEX Corporation) Speaker: Hiroki Montani

## CAEV P2 Outcrop, Seismic, and Modern Analogues 1 1:20 p.m.–3:00 p.m.

*Session Chairs: Abdulah Eljalafi and Ted Playton*

**Location: Poster Location 2 (on the 3rd level)**

Station A ...**The formation of modern marine intertidal stromatolites: Insights from the Red Sea:** K. Hachmann<sup>1</sup>, E. Garuglieri<sup>1</sup>, Y. Panara<sup>1</sup>, R. Marasco<sup>1</sup>, D. Daffonchio<sup>2</sup>, V. Vahrenkamp<sup>1</sup> (1. KAUST; 2. University of Turin) Speaker: Kai Hachmann

Station B ...**Whitings in the Red Sea:** M. Ariza, A. N. Wicaksono, E. Garuglieri, I. Hoteit, V. Vahrenkamp (KAUST) Speaker: Manuel Ariza

Station C ...**Unlocking the Dynamics of Pedogenic Carbonates: A Machine Learning Approach:** T. A. Legg, C. Hodges (University of Oklahoma) Speaker: Tiffany Legg

Station D ...**Depositional architecture and fracture distribution of a megabreccia in a debris-dominated carbonate lower slope: Permian Rader Member, Bell Canyon Formation, Guadalupe Mountains, West Texas:** M. Ibagarov<sup>1</sup>, A. Slooman<sup>1</sup>, Z. Jobe<sup>1</sup>, T. Playton<sup>2</sup>, R. A. Williams<sup>1</sup>, L. J. Wood<sup>1</sup>, P. Plink-Bjorklund<sup>1</sup> (1. Colorado School of Mines; 2. Chevron) Speaker: Marat Ibagarov

## CAEV P3 Mixed Carbonate and Siliciclastic Systems 1:20 p.m.–3:00 p.m.

*Session Chairs: Buddy Price and Rachel Williams*

**Location: Poster Location 3 (on the 3rd level)**

Station A ...**Emplacement and fill characteristics of carbonate mass failures across time, scale and depositional processes originating from the Central Basin Platform, Midland Basin, West Texas:** M. P. Braunscheidel<sup>1</sup>, L. J. Wood<sup>1</sup>, R. Bianco<sup>2</sup> (1. Colorado School of Mines; 2. Fasken Oil and Ranch) Speaker: Michael Braunscheidel

Station B ...**Paleoenvironmental interpretations and correlations using core facies and wireline logs from the mixed carbonate-siliciclastic Upper Strawn Group in Stonewall, Haskell, and King Counties, north-central Texas:** I. Johnson, P. P. Flaig, B. Dejarnett, K. Hattori (University of Texas at Austin) Speaker: Isabel Johnson

Station C ...**Facies variability in the Middle Member of the Bakken Formation, Williston Basin, North Dakota, USA: Evidence for subtle tectonic controls on deposition:** A. Cigri<sup>1</sup>, S. Egenhoff<sup>1</sup>, J. Sorensen<sup>2</sup> (1. University of North Dakota; 2. Energy & Environmental Research Center) Speaker: Ali Riza Cigri

Station D ...**Integrated petrographic, structural, and stratigraphic analysis of the Upper Cretaceous Abu Roash D carbonate reservoir, Northern Western Desert, Egypt:** A. M. Noureldin<sup>1</sup>, I. Khalil<sup>1</sup>, G. Saleh<sup>2</sup>, M. Radwan<sup>1</sup> (1. EUG; 2. SLB) Speaker: Ahmed Noureldin

## DAS P1 Modeling and Processing 1:20 p.m.–3:00 p.m.

*Session Chairs: Vladimir Kazei and Adesh Pandey*

**Location: Poster Location 7 (on the 3rd level)**

Station A ...**Machine learning-based P- and S-wave separation for distributed acoustic sensing (DAS) data:** Y. Choi, S. Seol, J. Byun (Hanyang University) Speaker: Yonggyu Choi

Station B ...**Acquisition requirements for inversion for fracture parameters with 3D DAS VSP data:** W. Cao, T. Mizuno, M. L. Khaitan (SLB) Speaker: Weiping Cao

Station C ...**A New Workflow for DAS VSP Modeling:** C. Wu, B. Harvey, I. Lim Chen Ning, T. Nemeth, M. Merino, C. Manuel, P. Costa Pisani, D. Sherlock, Y. Luo, H. Ni, K. Nihei, R. Dash, M. Yang, Y. Zhang, J. Bergeron, D. Bevc, Y. Tan, J. Nealon (Chevron) Speaker: Chunling Wu

Station D ...**Enhancing Seismic Event Detection and DAS Data Management Using Autoencoders:** A. Tourei, E. Martin (Colorado School of Mines) Speaker: Ahmad Tourei

## NS P5 General Contributions 1:20 p.m.–3:00 p.m.

*Session Chairs: Lee Slater and Cathy Truffert*

**Location: Poster Location 7 (in the Exhibit Hall)**

Station A ...**Integrated ERT and FDEM Approaches for Locating Metallic and Non-Metallic Buried Objects in High-Conductivity Soils:** R. Abdelrehim<sup>1</sup>, M. Abdrabou<sup>1</sup>, M. Everett<sup>2</sup> (1. Texas A&M University Corpus Christi; 2. Texas A&M University) Speaker: Ramadan Abdelrehim

Station B ...**Use of resistivity measurements in constructing a geotechnical-geophysical model of weathered marble profile at a landslide site in Sa Pa, Vietnam:** B. Xuan Hanh<sup>2</sup>, P. H. Giao<sup>1</sup>, H. H. Doan<sup>3</sup> (1. PetroVietnam University (PVU); 2. Transport Engineering Design Incorporated; 3. Vietnam Petroleum Institute) Speaker: Pham Giao

Station C ...**Using uncrewed aerial vehicles (UAV) to search for unmarked burials in legacy African-American cemeteries in the Houston, Texas area:** M. N. Bugti<sup>1</sup>, M. Allison<sup>2</sup>, R. Stewart<sup>1</sup>, C. Clapsaddle<sup>1</sup> (1. University of Houston; 2. Raptor Aerial Services) Speaker: Muhammad Nawaz Bugti

Station D ...**Air-Ground Coupling from SpaceX Starship Launch Signals:** J. Villagomez, J. McNease, Z. Zhang, M. Murphy, Y. Zheng (University of Houston) Speaker: Johanna Villagomez

## SMT P3 Frequency Domain 1:20 p.m.–3:00 p.m.

*Session Chairs: Valeriy Brytik and Min Zhou*

**Location: Poster Location 1 (in the Exhibit Hall)**

Station A ...**Physics-informed neural operator for learning Helmholtz equation in microseismic application:** X. Ma, T. Alkhalifah (KAUST) Speaker: Xiao Ma

Station B ...**Accelerating seismic wavefield representation via latent diffusion-initialized physics-informed neural networks:** S. Cheng, T. Alkhalifah (King Abdullah University of Science and Technology) Speaker: Shijun Cheng

Station C ...**Combining Fourier neural operator and Diffusion model for seismic wave modeling in frequency-domain:** X. Meng, J. Geng (Tongji University) Speaker: Xiangqi Meng



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Station D ...**Efficient frequency-domain seismic modeling via the rapid expansion method:** R. Pestana<sup>1</sup>, D. Revelo<sup>2</sup>, L. S. Bitencourt<sup>1</sup>, V. Koehne<sup>\*3</sup> (1. Federal University of Bahia; 2. SENAI-CIMATEC; 3. SENAI CIMATEC HPC Center (Non-Author))  
Speaker: Victor Koehne

### SMT P4 Seismic Modeling in Different Media

1:20 p.m.–3:00 p.m.

*Session Chairs: Kaushik Banerji and Weihong Fei*

**Location: Poster Location 2 (in the Exhibit Hall)**

Station A ...**Orientation-invariant wave equations for elastic media with TTI or TORT symmetries:** R. Felicio Fuck, L. Casasanta (Shearwater Geoservices) Speaker: Rodrigo Felicio Fuck

Station B ...**Viscoacoustic wave propagation in elliptical VTI media: Spectral-element simulations with a novel GSLs-type wave equation:** Y. Chen, D. Lumley, H. Zhu (The University of Texas at Dallas) Speaker: Yu Chen

Station C ...**Wave propagation in the thermoelastic medium with variable material properties:** Y. Liu<sup>1</sup>, L. Fu<sup>1</sup>, Z. Wang<sup>2</sup>, W. Hou<sup>1</sup> (1. China University of Petroleum (East China); 2. Harbin Engineering University) Speaker: Yunfei Liu

Station D ...**Leveraging Kolmogorov-Arnold Network Empowered Fourier Neural Operator to Solve Eikonal Equation:** Y. Cui<sup>1</sup>, U. Waheed<sup>1</sup>, C. Song<sup>3</sup>, Y. Chen<sup>2</sup> (1. King Fahd University of Petroleum and Minerals; 2. University of Texas at Austin; 3. Jilin University) Speaker: Umair Bin Waheed

### SP P9 Machine Learning Applications 1

1:20 p.m.–3:00 p.m.

*Session Chairs: Shuang Gao and Frederico Xavier De Melo*

**Location: Poster Location 4 (in the Exhibit Hall)**

Station A ...**Synthetic pretraining is not enough: Domain shift through normalization:** J. Quesada, P. Chowdhury, M. Prabhushankar, G. AlRegib (Georgia Institute of Technology) Speaker: Jorge Quesada

Station B ...**Intelligent quality control techniques for seismic data processing:** L. Liu, P. Sun, Z. Guo, F. Ni, W. Geng, J. Zhang (BGP, CNPC) Speaker: Lei Liu

Station C ...**Concurrent Seismic Inversion and Imaging via Deep Learning Integration of Multi-source Data:** L. Ma, L. Han, F. Zhang (Jilin University) Speaker: Ligu Han

Station D ...**ML-based 3D seismic clustering technology for prospect reserves evaluation: A case study from fields in South Caspian Basin:** T. Eliva<sup>1</sup>, O. Mammadov<sup>3</sup>, I. Karimli<sup>1</sup>, R. Malikov<sup>1</sup>, N. Kuramshina<sup>2</sup>, K. Aliyev<sup>2</sup> (1. WAVERITY; 2. GL; 3. Baku State University) Speaker: Orkhan Mammadov

### SP P10 Machine Learning Technology

1:20 p.m.–3:00 p.m.

*Session Chairs: Merzlikin Dmitrii and Yingming Qu*

**Location: Poster Location 5 (in the Exhibit Hall)**

Station A ...**GAN-Based Seismic Horizon Tracking:** W. Zheng, R. Bell, L. Guasch, C. Cueto, P. Pasalska, Y. Wang (Imperial College London) Speaker: Wenhao Zheng

Station B ...**Optimizing Automatic Interpretation for the Multi Horizon Case:** R. Dutra, F. Vizeu, J. Zambrini, Y. Weiss, A. Canning (Aspentech) Speaker: Yuval Weiss

Station C ...**Multi-instance SAM2 for 3D seismic segmentation:** P. Chowdhury, M. Prabhushankar, G. AlRegib (Georgia Institute of Technology) Speaker: Prithwiji Chowdhury

Station D ...**Generative-based Uncertainty Estimation of Fault Interpretation Leveraging Multi-Quality Annotations:** C. Zhou, M. Prabhushankar, G. AlRegib (Georgia Institute of Technology) Speaker: Chen Zhou

### STGM P3 Geomechanics 2

1:20 p.m.–3:00 p.m.

*Session Chairs: Titus Murray and David Forand*

**Location: Poster Location 4 (on the 3rd level)**

Station A ...**Derisking well construction using real-time reverse multi-well analysis to enhance updating the drilling window and field-scale geomechanical model:** J. P. Castagnoli (SLB) Speaker: Joao Castagnoli

Station B ...**Pore pressure prediction using offshore seismic data: A case study in South China sea:** W. Pei, L. Han, W. Tan (Petroleum Exploration and Production Research Institute, Sinopec) Speaker: Weilai Pei

Station C ...**Mechanical stratigraphy, bedding-plane slip, and casing deformation:** K. Smart<sup>1</sup>, A. Cawood<sup>1</sup>, D. A. Ferrill<sup>2</sup> (1. Southwest Research Institute; 2. Southwest Research Institute) Speaker: Kevin Smart

### TL P3 Case Studies 1

1:20 p.m.–3:00 p.m.

*Session Chairs: Denis Kiyashchenko and Shauna Oppert*

**Location: Poster Location 6 (in the Exhibit Hall)**

Station A ...**Active seismic monitoring of CO<sub>2</sub> injected into a shallow fault:** K. Tertyshnikov<sup>1</sup>, R. Pevzner<sup>1</sup>, O. Collet<sup>1</sup>, P. Shashkin<sup>1</sup>, N. Beloborodov<sup>1</sup>, M. Vorobev<sup>1</sup>, A. Almukhametova<sup>1</sup>, R. Isaenkov<sup>1</sup>, B. Gurevich<sup>1</sup>, S. Glubokovskikh<sup>2</sup> (1. Curtin University; 2. LBNL (Non-Author)) Speaker: Stanislav Glubokovskikh

Station B ...**Denoise 4D fast-track image using a Conditional GAN: Brazilian Pre-salt Example:** J. A. Collazos<sup>1</sup>, K. d. Rincon<sup>1</sup>, E. Fagua Duarte<sup>1</sup>, J. M. Araujo<sup>1</sup>, D. Kiyashchenko<sup>3</sup>, J. L. Lopez<sup>2</sup> (1. UFRN; 2. Shell Brasil Petroleo Ltda; 3. Shell International Exploration and Production Inc.) Speaker: Jaime Collazos

Station C ...**Broadband seismic data with frequencies from zero to Nyquist for building interval velocities:** J. C. Bancroft (JB Consulting) Speaker: John Bancroft

Station D ...**Leveraging Relative Geological Time Models to Enhance 4D Seismic Monitoring: Optimizing Reservoir Saturation Analysis through Delta Time Changes:** A. Fernandez<sup>1</sup>, Q. Corlay<sup>2</sup>, H. Abdallah<sup>2</sup> (1. Eliis Inc.; 2. Eliis SAS) Speaker: Alfredo Fernandez

### BH P3 Advances in Borehole Data Processing and Modeling 2

3:40 p.m.–5:20 p.m.

*Session Chairs: Alexei Bolshakov and Nadia Mouedden*

**Location: Poster Location 2 (in the Exhibit Hall)**

Station E ...**Evaluation of mechanical parameters of complex lithology rocks based on drill cuttings:** L. Chang, H. Wang, L. Zhuo, G. Ji (CNPC Engineering Technology R&D Company Limited) Speaker: Long Chang



# Poster Sessions

Wednesday, 27 August

- Station F....**Geometrical Optimization of an Acoustic Logging-While-Drilling Isolator:** W. Weinzierl, S. Schimschal, A. Swiatek, T. Geerits (Baker Hughes) Speaker: Stefan Schimschal
- Station G....**Cement evaluation through dual-string pipes using acoustic resonance method:** Y. Ge, R. Wang, F. H. de Araujo, B. Cabella, X. Wu (Halliburton) Speaker: Yao Ge
- Station H....**High-precision intelligent seismic geosteering technology for tight oil horizontal wells in Junggar Basin:** Y. Yao, J. Cui, Z. Teng, X. Li, T. Xu, Q. Nie (BGP, CNPC) Speaker: Yanfei Yao

## BH P4 Machine Learning Applied to Borehole Data 2

3:40 p.m.–5:20 p.m.

*Session Chairs: Shuvajit Bhattacharya and Vanessa Simoes*

**Location: Poster Location 3 (in the Exhibit Hall)**

- Station E....**AI-driven real time prediction of gamma ray ahead of the drill bit:** I. Karimli, R. Malikov, O. Mammadov, I. Shahsenov (WAVERITY) Speaker: Ilkin Karimli
- Station F....**BiLSTM-Kolmogorov-Arnold Network Integration for Robust Reconstruction of Missing Acoustic Logs in Thin-Interbedded Formations:** X. Lu, D. Zhang, X. Wang, N. Guo (CNOOC China Limited Tianjin) Speaker: Xinrui Lu
- Station G....**AI-powered dip picking tool for borehole image logs:** N. You<sup>1</sup>, T. Lin<sup>1</sup>, W. Li<sup>1</sup>, X. He<sup>2</sup>, H. Kwak<sup>2</sup> (1. Aramco Americas; 2. Aramco) Speaker: Nan You
- Station H....**A VSP Wavefield Separation Method Combining Curvelet Transform and Deep Learning:** Y. He (University of Electronic Science and Technology of China) Speaker: Yuhang He

## CAEV P4 Carbonate Diagenesis

3:40 p.m.–5:20 p.m.

*Session Chairs: Buddy Price and Ben Rendall*

**Location: Poster Location 1 (on the 3rd level)**

- Station E....**Hydrothermal Events in Carbonates from South Atlantic Pre-Salt: Age and Associated Diagenesis in Distal Area of the Campos Basin, Southeastern Brazil:** M. F. Santos<sup>3</sup>, D. S. Dubois<sup>1</sup>, R. V. Santos<sup>2</sup>, G. d. Gonçalves<sup>2</sup>, I. d. Carmo<sup>3</sup>, A. N. de Araujo<sup>4</sup>, F. d. Costa<sup>4</sup>, G. C. Costa<sup>2</sup>, R. P. Brandão<sup>4</sup>, L. C. Falcão<sup>3</sup>, Y. Silva<sup>3</sup> (1. Petroleo Brasileiro SA; 2. UnB - Universidade de Brasília; 3. Petróleo Brasileiro S.A.; 4. Petrobras S.A.) Speaker: Maria Rosilene Santos
- Station F....**Deciphering depositional and diagenetic signatures in Upper Cretaceous deep-marine carbonates, southeast Gulf of Mexico: Insights from cluster analysis:** J. M. León (IMP) Speaker: Juan León
- Station G....**Diagenetic Feature and Paleoenvironmental Implications of Eocene Jatta Gypsum in the Kohat Basin, Pakistan:** H. Ullah (China University of Petroleum (East China)) Speaker: Hassanat Ullah
- Station H....**Strike-slip fault-controlled fracture-cavity reservoir characterization in ultra-deep carbonates: A case study from the Tarim Basin:** F. Yang<sup>1</sup>, X. Yin<sup>2</sup>, B. Liu<sup>1</sup> (1. China University of Petroleum (East China); SINOPEC Geophysical Research Institute Co., Ltd.; 2. China University of Petroleum (East China)) Speaker: Fengying Yang

## CAEV P5 Outcrop, Seismic, and Modern Analogues 2

3:40 p.m.–5:20 p.m.

*Session Chairs: Abdulah Eljalafi and Ted Playton*

**Location: Poster Location 2 (on the 3rd level)**

- Station E....**Facies architecture and mechanical stratigraphy of Mississippian grainy and muddy carbonate sediment gravity-flow deposits: Rancheria Formation, Sacramento Mountains, New Mexico:** S. Begimbetov<sup>1</sup>, Z. Jobe<sup>1</sup>, A. Slooman<sup>1</sup>, J. Bishop<sup>2</sup>, P. Plink-Bjorklund<sup>1</sup>, L. J. Wood<sup>1</sup> (1. Colorado School of Mines; 2. Chevron) Speaker: Sanzhar Begimbetov
- Station F....**Depositional architecture of a prograding microbial-reef-rimmed carbonate slope, Lower Carboniferous, Bolshoi Karatau Mountains, Kazakhstan:** A. Slooman<sup>1</sup>, M. Ibagarov<sup>1</sup>, Z. Jobe<sup>1</sup>, G. Alimzhanova<sup>1</sup>, S. Begimbetov<sup>1</sup>, M. Miguez<sup>1</sup>, R. A. Williams<sup>1</sup>, J. Bishop<sup>2</sup>, A. Umrain<sup>3</sup>, B. den Brok<sup>3</sup>, M. Fustic<sup>3</sup>, D. Bekeshov<sup>3</sup>, A. Igizgali<sup>3</sup>, M. Issatay<sup>3</sup>, T. Mynbayeva<sup>3</sup>, D. Nadirkhanova<sup>3</sup>, A. Zhengis<sup>3</sup> (1. Colorado School of Mines; 2. Chevron; 3. Nazarbayev University) Speaker: Arnoud Slooman
- Station G....**Strike-variability of a submarine fan on a Mississippian carbonate ramp, Doña Ana Member, Lake Valley Formation, Sacramento Mountains, New Mexico:** Z. N. Nadhim<sup>1</sup>, A. Slooman<sup>1</sup>, L. J. Wood<sup>1</sup>, J. Bishop<sup>2</sup>, Z. Jobe<sup>1</sup>, P. Plink-Bjorklund<sup>1</sup> (1. Colorado School of Mines; 2. Chevron) Speaker: Zaid Nadhim
- Station H....**Identification and geological significance of clustered bioherms and shoals in the Permian Changxing Formation, central Sichuan Basin:** Y. Deng, R. Yang, X. Feng, Y. Zhu, h. liang, Z. Zhu, B. Li (BGP, CNPC) Speaker: Yuling Deng

## DAS P2 Near Surface and Engineering

3:40 p.m.–5:20 p.m.

*Session Chairs: Andres Chavarria and Jihyun Yang*

**Location: Poster Location 7 (on the 3rd level)**

- Station E....**Numerical Simulation of Vehicle-Induced DAS Signals through Simulation and Field Data:** S. Choi<sup>2</sup>, B. Yoon<sup>1</sup>, Y. Cho<sup>2</sup> (1. Korea Institute of Geoscience and Mineral Resources; 2. Seoul National University) Speaker: Seunghun Choi
- Station F....**Coherence Analysis for DAS data processing:** A. S. Issah (Colorado School of Mines) Speaker: Abdul Hafiz Issah
- Station G....**DAS monitoring by using dark fiber on the campus of UL Lafayette:** R. Zhang<sup>1</sup>, Y. Soni<sup>2</sup>, J. Pulliam<sup>2</sup>, G. Morra<sup>1</sup>, S. Hoque<sup>1</sup>, P. Owusu<sup>1</sup>, M. Boroumand<sup>1</sup> (1. University of Louisiana at Lafayette; 2. Baylor University) Speaker: Rui Zhang

## IPS P1 New Energies and Hydraulic Fracture Monitoring

3:40 p.m.–5:20 p.m.

*Session Chairs: Weiping Cao and Ting Chen*

**Location: Poster Location 3 (on the 3rd level)**

- Station E....**Seismicity-constrained optimization of produced water injection:** V. Meenakshisundaram<sup>1</sup>, W. Curry<sup>1</sup>, S. Hussenoeder<sup>2</sup> (1. ExxonMobil; 2. ExxonMobil Upstream Company) Speaker: Venkatesh Meenakshisundaram
- Station F....**Real-time microseismic event location using a latent diffusion model:** Y. Yang, O. M. Saad, T. Alkhalifah (King





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Abdullah University of Science and Technology) Speaker:  
Yuan Yuan Yang

Station G ... **Fundamental study on seismic reflection characteristics of fluid-filled fracture with fluid flow:** S. Katoh, J. Takekawa (Kyoto University) Speaker: Shun Katoh

### IPS P2 Ambient Field Methods

3:40 p.m.–5:20 p.m.

*Session Chairs: Shujaat Ali and Wanying Wang*

**Location: Poster Location 4 (on the 3rd level)**

Station E.... **Seismic Microzonation Analysis Using the HVSr Method for Landslide Investigation in Banggai Regency, Central Sulawesi Province:** N. S. Salsabila (Geophysics) Speaker: Nazwa Salsabila

Station F.... **Ambient seismic frequency-domain gradiometry:** D. Davis<sup>1</sup>, J. C. Shragge<sup>1</sup>, A. Girard<sup>1</sup>, S. de Ridder<sup>2</sup> (1. Colorado School of Mines; 2. University of Leeds) Speaker: Daniel Davis

Station G ... **First-order Control Factors for Ocean-bottom Ambient Seismology Interferometric Observations:** A. Pandey, J. C. Shragge, A. J. Girard (Colorado School of Mines) Speaker: Adesh Pandey

### IPS P3 Induced Seismicity and Fault Monitoring

3:40 p.m.–5:20 p.m.

*Session Chairs: Adam Baig and Daniel Hollis*

**Location: Poster Location 5 (on the 3rd level)**

Station E.... **Shear-source parameter inversion of hydraulic fracturing-acoustic emission based on intelligent optimization algorithms:** B. Liang, L. Fu, T. Müller, W. Deng, T. Han (China University of Petroleum (East)) Speaker: Bofeng Liang

Station F.... **A Data-Driven approach to Mitigate Seismicity Risk in Subsurface Operations:** A. Shamsa, M. Paydayesh, M. Perezhogina (SLB) Speaker: Maria Perezhogina

Station G ... **Sensitivity analysis of earthquake depths in the Western Delaware Basin:** E. Castillo<sup>1</sup>, N. Igonin<sup>1</sup>, A. Savvaidis<sup>2</sup> (1. University of Texas at Dallas; 2. Lead Seismologist and Manager of the Texas Seismological Network (TexNet)) Speaker: Emmanuel Castillo

### NS P6 Seismic Velocity Modeling

3:40 p.m.–5:20 p.m.

*Session Chairs: Shawn Clark and Kennedy Doro*

**Location: Poster Location 7 (in the Exhibit Hall)**

Station E.... **WITHDRAWN**

Station F.... **Near surface model building by first break tomography for ultra-thick low velocity layer:** W. Wei (BGP) Speaker: Wu Wei

Station G ... **High-resolution velocity model building: Enhancing near surface imaging for seismic exploration:** N. S. Alnaser, E. Sandoval Curiel, D. Colombo (Aramco) Speaker: Naser Alnaser

Station H ... **High-resolution depth velocity modeling for offshore wind farm site characterization:** L. Limonta<sup>1</sup>, B. Caselitz<sup>1</sup>, M. Lange<sup>1</sup>, J. Oukili<sup>1</sup>, R. Ruiz<sup>1</sup>, J. Brittan<sup>2</sup> (1. TGS; 2. TGS (Non-Author)) Speaker: John Brittan

### SMT P5 Miscellaneous Topics in Seismic Exploration

3:40 p.m.–5:20 p.m.

*Session Chairs: Shuhua Hu and Anurag Pandey*

**Location: Poster Location 1 (in the Exhibit Hall)**

Station E.... **Kinematically equivalent Born model compression:** G. Flagg, C. Lapilli (SLB) Speaker: Garret Flagg

Station F.... **From Mineralogy to Mechanical Properties: Integrating core data and rock physics simulations for stiffness tensor estimation in Vaca Muerta organic-rich mudrock:** J. E. Santos<sup>2</sup>, A. S. Camus<sup>3</sup>, G. B. Savioli<sup>2</sup>, P. M. Gauzellino<sup>3</sup>, J. Ba<sup>1</sup> (1. Hohai University; 2. Universidad de Buenos Aires; 3. Universidad Nacional de La Plata) Speaker: Juan Santos

Station G ... **Application of Multi-Scale Well-Seismic Time-Frequency Matching Methods in Sequence Stratigraphic Interpretation:** Y. Lin, D. Yong, I. Wang, Z. Feng, L. Xiaohu, X. Yin, S. Zhang (BGP, CNPC) Speaker: Yu Lin

Station H ... **Further discussion on full wavefield seismic exploration:** D. Li, W. Fan, F. Yan (Beijing Century Kingdo Petro-Tech Co. Ltd.) Speaker: Dongan Li

### SP P11 Case Studies 1

3:40 p.m.–5:20 p.m.

*Session Chairs: Darrell Armentrout and Mina Matta*

**Location: Poster Location 4 (in the Exhibit Hall)**

Station E.... **Converted wave imaging of a giant field offshore Abu Dhabi:** G. Cambois, S. A. Al Mesaabi, M. Mahgoub, T. M. Alkathheeri, O. H. Kirstetter, Y. Hong, A. Al Neyadi (ADNOC) Speaker: Saif Al Mesaabi

Station F.... **Improving OBN Seismic Data Processing Using 3D Directional Signature Techniques in Deep Water Areas:** R. Zhang (BGP, CNPC) Speaker: Ran Zhang

Station G ... **Advanced processing of a novel acquisition from offshore Cyprus:** M. F. Hartmann<sup>1</sup>, C. Asher<sup>1</sup>, S. Braquet<sup>1</sup>, J. Caskey<sup>1</sup>, N. Samai<sup>1</sup>, A. Ouzounis<sup>2</sup> (1. DUG Technology; 2. ExxonMobil Technology and Engineering Company) Speaker: Monica Hartmann

Station H ... **High precision imaging for complex volcanic reservoir in Sichuan Basin, China:** Y. Xiong (Sinopec Geophysical Research Institute) Speaker: Yanmei Xiong

### SP P12 Case Studies 2

3:40 p.m.–5:20 p.m.

*Session Chairs: Xie Yi and Junru Jiao*

**Location: Poster Location 5 (in the Exhibit Hall)**

Station E.... **Development and Application of "All-Time, Full-Space" Processing Technology for all-with-node Seismic Data:** Y. Wang, Y. Rui, X. Tang, H. Liang, N. Qin (Sinopec Shengli Oilfield Geophysical Research Institute) Speaker: Ning Qin

Station F.... **Analysis of seismic gas-obscured zones: Offshore and onshore case studies from China:** Z. Zou<sup>1</sup>, P. Sava<sup>2</sup>, P. Sun<sup>1</sup>, Z. Qian<sup>1</sup>, W. Zhang<sup>1</sup>, Z. Ding<sup>1</sup> (1. BGP, CNPC; 2. Colorado School of Mines) Speaker: Zhen Zou

Station G ... **Seismic phase spectral analysis: Field-data insights from circular statistics:** A. Rohatgi, A. Bakulin, S. Fomel (University of Texas at Austin) Speaker: Akshika Rohatgi

Station H ... **Study and application of key seismic data processing technologies for Buried Hill in the Pearl River Mouth Basin:** T. Lu<sup>1</sup>, M. Li<sup>1</sup>, W. Liu<sup>1</sup>, F. Zhou<sup>1</sup>, W. Guo<sup>1</sup>, G. Tan<sup>1</sup>, R. Li<sup>2</sup> (1.

# Poster Sessions

Wednesday, 27 August

CNOOC China Limited, Zhanjiang Branch; 2. SLB) Speaker: Tongxiang Lu

## STUD P4 Outcrop-Based Study

3:40 p.m.–5:20 p.m.

*Session Chairs: Howard Harper and Ahmed Radwan*

**Location: Poster Location 6 (on the 3rd level)**

- Station E....**Outcrop and petrographic analysis of the Permian Lyons Sandstone, Morrison, Colorado: Understanding diagenesis and oxygen Isotope variation for reservoir characterization:** I. L. Hopkins (Colorado School of Mines) Speaker: Isabel Hopkins
- Station F....**High-Resolution Outcrop Modeling for Fluvial Reservoir Characterization: Using the Castlegate Sandstone as an Analog for Subsurface Exploration:** O. Tatum, S. M. Hudson, B. Bickmore, J. A. Robinson, A. Toner (Brigham Young University) Speaker: Olivia Tatum
- Station G....**Connectivity in fractured reservoirs: Outcrop analogs and seismic data:** R. Biswas, B. Sahoo, A. Roy, S. Tripathy (Indian Institute of Technology Kharagpur) Speaker: Rayaana Biswas
- Station H....**Geochemical Signatures of the Mowry Shale: Insights into Its Unconventional Reservoir Potential:** 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

## TL P4 4D Seismic Inversion and Quantitative Interpretation

3:40 p.m.–5:20 p.m.

*Session Chairs: Chen Bao and Mert Kiraz*

**Location: Poster Location 6 (in the Exhibit Hall)**

- Station E....**Detection of a new CO<sub>2</sub> plume in time-lapse seismic data (2010) of Sleipner field, North Sea, Norway using spectral attributes:** M. Vijayaraj, P. Kumar, N. Vedanti (CSIR-National Geophysical Research Institute) Speaker: Muthulakshmi Vijayaraj
- Station F....**Integrated reservoir model optimization using seismic data and production decline curves:** J. Yang (Southwest Petroleum University) Speaker: Jian Yang
- Station G....**Time-Lapse Seismic signatures of Carbon Dioxide Sequestration and Hydrogen Storage:** Mavko-Jizba Model verification of seismic velocity, time, and attenuation: M. O. Falowo, A. Raef (Kansas State University) Speaker: Moses Falowo
- Station H....**Statistical Analysis of AVA/Rock Physics Attributes as Features for CO<sub>2</sub> Saturation Estimation from 4D Pre-stack Seismic Dataset:** P. Owusu, R. Zhang (University of Louisiana at Lafayette) Speaker: Papa Owusu

Thursday, 28 August

## CO<sub>2</sub> P1 Reservoir Characterization

8:00 a.m.–9:40 a.m.

*Session Chairs: Maria Madariaga and Andrey Shabelansky*

**Location: Poster Location 2 (on the 3rd level)**

- Station A....**Permeability prediction of carbonate-rich sandstones using X-ray micro-CT images:** T. A. Chukwuma<sup>1</sup>, Z. Shi<sup>2</sup>, L. E. Beckingham<sup>2</sup>, C. Garing<sup>1</sup> (1. University of Georgia; 2. Auburn University) Speaker: Tracy Chukwuma
- Station B....**The value of core data integration in the assessment of CO<sub>2</sub> storage capacity and injectivity: A case of study from the Paleocene Lower Wilcox, onshore Texas, USA:** C. A. Uroza, W. A. Ambrose, I. Olariu, S. Bhattacharya, S. Hovorka (University of Texas at Austin) Speaker: Carlos Uroza
- Station C....**CO<sub>2</sub> sequestration sequential prospect development, a case study from the Middle East:** M. Valderrama, A. Ghamdi (Aramco) Speaker: Mario Valderrama
- Station D....**Characterizing and modeling of reservoir quality for geologic storage of CO<sub>2</sub>: A case study from Offshore Matagorda Island, South Texas:** H. Ebaid<sup>1</sup>, Y. O. Azeez<sup>2</sup>, M. Abdrabou<sup>2</sup>, H. Elattar<sup>3</sup>, R. Abdelrehim<sup>2</sup>, M. Elshalkany<sup>2</sup>, A. Omar<sup>2</sup>, I. Pecher<sup>2</sup>, P. Mullen<sup>2</sup>, R. Diby<sup>1</sup> (1. Texas A&M University, College Station; 2. Texas A&M University, Corpus Christi; 3. University of Leeds) Speaker: Hossam Ebaid

## DAS P3 Low Carbon Solutions

8:00 a.m.–9:40 a.m.

*Session Chairs: Pengchao He and Ge Jin*

**Location: Poster Location 7 (on the 3rd level)**

- Station A....**CO<sub>2</sub> plume detection via refraction tomography of sparse S-DAS seismic data: Synthetic North Sea scenarios**

**evaluation:** S. Re, R. Bachrach, M. Chapelle, S. Harrington, J. Butt, M. Branston (SLB) Speaker: Simone Re

- Station B....**Monitor Potential Fracture Growth in Carbon Sequestration Reservoirs using Distributed Strain Sensing:** Y. Ning<sup>1</sup>, G. Jin<sup>1</sup>, R. W. Hammack<sup>2</sup>, E. Zorn<sup>2</sup> (1. Colorado School of Mines; 2. National Energy Technology Laboratory) Speaker: Yanrui Ning
- Station C....**Validating the presence of Stimulated Reservoir Volume around individual hydraulic fractures in Enhanced Geothermal Systems using Distributed Strain Sensing and coupled Thermo-Hydro-Mechanical modeling:** V. Fakeye (Colorado School of Mines) Speaker: Victor Fakeye

## MME P1 Advanced Modeling for Exploration

8:00 a.m.–9:40 a.m.

*Session Chairs: Daniel Hollis and Peng Li*

**Location: Poster Location 1 (on the 3rd level)**

- Station A....**A Holistic Approach for High-Resolution Mineral Prospectivity Mapping with Deep Convolutional Neural Networks:** K. Gomez, A. I. Koeshidayatullah (College of Petroleum Engineering and Geosciences) Speaker: Ardiansyah Koeshidayatullah
- Station B....**Revisiting Radiometric Ratios: Isometric Log Ratio Transforms to Balance Potassium, Thorium, and Uranium Ratios in Regional-Scale Mineral Exploration:** R. N. Crummett, M. Zhang, Y. Li (Colorado School of Mines) Speaker: Robert Crummett
- Station C....**Knowledge-Centered Geomodelling for Minerals Based on GenAI: What Can We Learn from Reservoir Prediction?:** S. Song (Stanford University) Speaker: Suihong Song



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Station D ... **Lp-norm inversion constrained by geological information using neural network and full-tensor gravity gradiometry data:** B. Zhang<sup>1</sup>, Z. Guo<sup>1</sup>, F. Xiong<sup>2</sup>, B. Chen<sup>1</sup>, B. Wang<sup>1</sup>, Y. Wang<sup>1</sup>, X. Wei<sup>3</sup> (1. Central South University; 2. Beijing Institute of Mathematical Sciences and Applications; 3. University of British Columbia) Speaker: Boyao Zhang

### NEF P1 Geothermal Energy

8:00 a.m.–9:40 a.m.

*Session Chairs: Xiaolong Wei and Xuqing Wu*

**Location: Poster Location 3 (on the 3rd level)**

Station A ... **Next-generation Geothermal Resource Assessment of the Rio Grande Rift Zone, SW Texas: Techno-economic Implications for Power Generation and Direct Use:** S. Bhattacharya, R. Arasada, S. Liu, B. Young, P. Eichhubl, D. Chapman, K. Wisian (The University of Texas at Austin) Speaker: Shuvajit Bhattacharya

Station B ... **Correlation of Peculiar Characteristics of Southwestern Nigeria's Physical Features for Geothermal Energy Generation: A Case Study of Ikogosi-Ado Ekiti and Ijebu-Ife:** M. O. Ekechikwe (FUPRE) Speaker: Maureen Ekechikwe

Station C ... **A Synergistic Application of Supercritical CO<sub>2</sub> in Geothermal Energy and Heavy Oil Recovery:** G. Abdelemeseih<sup>2</sup>, V. Atashbari<sup>1</sup>, A. Guirgis<sup>3</sup> (1. Southern University; 2. ENI; 3. 3. PMG Petro Management Group Ltd.) Speaker: Vahid Atashbari

Station D ... **Convolutional Neural Networks to Predict Hidden Hydrothermal Resources in the Rio Grande Rift Zone, Southwestern United States using Publicly Available Data:** R. Arasada, S. Bhattacharya (Bureau of Economic Geology, The University of Texas at Austin, United States) Speaker: Rama Chandrudu Arasada

### NEF P2 Energy Transition

8:00 a.m.–9:40 a.m.

*Session Chairs: Shubin Zeng and Ziang Zhang*

**Location: Poster Location 4 (on the 3rd level)**

Station A ... **Modeling Natural Hydrogen Flow from Serpentinized Reservoirs for Sustainable Energy:** P. Panja, R. Sorkhabi, M. Deo (University of Utah) Speaker: Palash Panja

Station B ... **Prospect assessment workflows for the energy transition: Natural hydrogen, carbon storage, geothermal and lithium resources:** M. Neumaier, B. Kurtenbach, I. Bryant (Ariane Logix) Speaker: Martin Neumaier

Station C ... **Assessment of Lithium potential in Kuwait: Geological and Geochemical insight:** H. Akbar, S. Behbehani (KOC) Speaker: Hussain Akbar

Station D ... **Analytical vs. Numerical Modeling of Long-Term Thermal Performance in the Utah FORGE EGS Reservoir:** P. K. Kumawat, P. Panja, M. Deo (University of Utah) Speaker: Palash Panja

### STUD P5 Seismic Monitoring for CO<sub>2</sub> Storage

8:00 a.m.–9:40 a.m.

*Session Chairs: Ting Gong and Maggie Jiao*

**Location: Poster Location 6 (on the 3rd level)**

Station A ... **CO<sub>2</sub> saturation prediction in storage monitoring using seismic velocity and attenuation:** X. Wu, Y. Shen (China University of petroleum (East China)) Speaker: Xiaoqin Wu

Station B ... **Evaluation of time-lapse full waveform inversion methods in CO<sub>2</sub> monitoring:** S. Luan<sup>1</sup>, Y. Shen<sup>1</sup>, Y. Cho<sup>2</sup> (1. China University of Petroleum (East China); 2. Seoul National University) Speaker: Shu Luan

Station C ... **Imaging-domain wave equation Q tomography for CO<sub>2</sub> monitoring:** T. Jia, Y. Shen (China University of Petroleum (East China)) Speaker: Tianyu Jia

Station D ... **Efficient compensation for CO<sub>2</sub>-induced seismic attenuation using wavenumber-domain spectral ratio:** C. Xu, Y. Shen (China University of Petroleum (East China)) Speaker: Changsheng Xu

### SUS P1 Advances in Sustainable Geo-energy Development

8:00 a.m.–9:40 a.m.

*Session Chairs: Uzonna Anyiam and Roberto Wagner*

**Location: Poster Location 5 (on the 3rd level)**

Station A ... **Biogeochemical impact of hydrogen leakage on groundwater quality in clay-rich aquifers:** A. Clark, A. Pathak, S. Sharma (West Virginia University) Speaker: Allison Clark

Station B ... **Reactive transport simulation of H<sub>2</sub> diffusive leakage through clay rich cap rocks with CO<sub>2</sub> as a cushion gas:** A. Pathak, S. Sharma (West Virginia University) Speaker: Arkajyoti Pathak

Station C ... **Reliable methodology to quantify H<sub>2</sub> concentrations using a high resolution gas chromatography:** E. M. Endara Arguello<sup>1</sup>, W. Yan<sup>2</sup>, P. Srinivasan<sup>1</sup> (1. Aramco Americas; 2. Houston Research Center-Aramco Americas) Speaker: Estefania Endara Arguello

Station D ... **Integrating Transient Electromagnetics and Satellite-Based Remote Sensing for Enhanced Geothermal Exploration:** S. Al Nasser, N. S. Alnaser, m. Modrra (Saudi Aramco) Speaker: Saleh Al Nasser

### AAS P1 Case Study

10:20 a.m.–12:00 p.m.

*Session Chairs: Jake Lee and Daniel Locci-Lopez*

**Location: Poster Location 5 (in the Exhibit Hall)**

Station A ... **Application of PP-PS joint prestack inversion for tight sandstone reservoir characterization:** H. Wang<sup>1</sup>, L. Zhou<sup>2</sup>, L. Zhao<sup>3</sup>, J. Wang<sup>3</sup>, Q. Chen<sup>4</sup>, X. Guo<sup>4</sup> (1. Southwest Petroleum University and RIPED; 2. Southwest Petroleum University; 3. RIPED, CNPC; 4. NWGI, RIPED) Speaker: Hongqiu Wang

Station B ... **A pre-stack joint inversion method of reservoir lithofacies and elastic parameters:** H. Luo (Exploration and Development Research Institute of Shengli Oilfield) Speaker: Hongmei Luo

Station C ... **Identification method for thin-bed sand bodies: Based on an integrated seismic attribute-driven study:** C. Bai, Y. Xu, X. Huang (Southwest Petroleum University-School of Geoscience and Technology) Speaker: Chunyuan Bai

Station D ... **Prospect Assessment for Stacked Oil Sands in the Cretaceous Shu-1 Member, RP Area, Tarim Basin:** C. Zhang (Yangtze University) Speaker: Chengcheng Zhang



# Poster Sessions

Thursday, 28 August

## AAS P2 Anisotropy

10:20 a.m.–12:00 p.m.

*Session Chairs: Amit Padhi and Oyedoyin Pelemo-Daniels*

**Location: Poster Location 6 (in the Exhibit Hall)**

- Station A...**Radiation Pattern Analysis for Elastic Tilted Transversely Isotropic (TTI) Media:** F. T. Costa, A. A. Karsou, P. H. Alves, F. V. Capuzzo, M. Cetale (UFF) Speaker: Felipe Costa
- Station B...**Identification Technology and Application of Fracture-Cave Reservoirs: A Case Study of Area A in the Karakum Basin:** Z. Wang<sup>1</sup>, J. Dong<sup>1</sup>, P. Zhang<sup>2</sup>, M. Luo<sup>2</sup>, W. Wang<sup>1</sup>, Q. Gong<sup>1</sup>, w. Liu<sup>1</sup>, W. Sun<sup>1</sup> (1. BGP, CNPC; 2. CNODC, CNPC) Speaker: Zhongfan Wang
- Station C...**Effect of surface roughness and curvature on ultrasonic acoustic reflection coefficients: Laboratory measurements on synthetic isotropic and anisotropic samples:** D. Crisafulli, G. Gallardo Giozza, D. Olszowska, C. Torres-Verdin (The University of Texas at Austin) Speaker: Domenico Maria Crisafulli
- Station D...**Application of mountain wide-azimuth 3D3C technology in identifying heterogeneous sandstones: A case study of the Jurassic Shaximiao Formation in Northern Sichuan Basin, China:** Y. Yan (Exploration and Development Research Institute, PetroChina Southwest Oil & Gasfield Company) Speaker: Yuanyuan Yan

## AAS P3 AVO Inversion 2

10:20 a.m.–12:00 p.m.

*Session Chairs: Hemali Patel and Nimisha Vedanti*

**Location: Poster Location 5 (in the Exhibit Hall)**

- Station E...**Analysis of applicable conditions for AVO inversion based on composite matrix reflectivity method:** X. Zhu, Z. Zong, F. Zhang (China University of Petroleum (East China)) Speaker: Xiaojian Zhu
- Station F...**Structure-guided AVO inversion with L1-2 regularization by implicit operator in shallow formation:** Q. wu<sup>1</sup>, G. Liu<sup>1</sup>, X. He<sup>2</sup>, Z. Wang<sup>1</sup> (1. China University of Petroleum (Beijing); 2. CNOOC China Limited, Hainan Branch) Speaker: Qibin wu
- Station G...**A physics-based diffusion-evolution model for seismic inversion:** S. Hu, M. Sen (University of Texas at Austin) Speaker: Shuhua Hu
- Station H...**5D Seismic AVA inversion application in carbonate reservoir connectivity evaluation:** R. Zhang, Z. Sun, d. Wang (Sinopec Geophysical Research Institute) Speaker: Ruyi Zhang

## AAS P4 Machine Learning 3

10:20 a.m.–12:00 p.m.

*Session Chairs: Fan Jiang and Dhananjay Kumar*

**Location: Poster Location 6 (in the Exhibit Hall)**

- Station E...**Semi-supervised multi-task learning for impedance and Q inversion of nonstationary data:** Z. Jiang, B. Wang, R. Luo (Tongji University) Speaker: Zheng Jiang
- Station F...**Conditional Variational Auto-encoder for Seismic Inversion with Multi-Head Attention:** F. Jiang, K. Osyrov, M. Gomes, S. Singh, M. Belonosov (Halliburton) Speaker: Fan Jiang
- Station G...**Multichannel blind deconvolution assisted by deep learning:** A. V. Landeta Bejarano<sup>1</sup>, M. D. Sacchi<sup>2</sup>, A. Novais<sup>1</sup>,

J. Schleicher<sup>1</sup> (1. University of Campinas; 2. University of Alberta) Speaker: Andres Landeta Bejarano

- Station H...**Improving seismic inversions with PDF Transforms:** J. Pendrel (GeoSoftware) Speaker: John Pendrel

## AAS P5 Machine Learning 4

10:20 a.m.–12:00 p.m.

*Session Chairs: Abhinav Prakash Gahlot and William Hernandez*

**Location: Poster Location 7 (in the Exhibit Hall)**

- Station E...**Distributary channel tight sandstone reservoir characterization based on attention mechanisms:** H. Lv, L. Yang, L. Yin (Sinopec Geophysical Research Institute Co., Ltd) Speaker: Hui Lv
- Station F...**Application of Quantum Neural Networks and Variational Quantum Regression in Seismic Inversion:** Z. Liu, J. Zhang (China University of Petroleum(East China)) Speaker: Zhen Liu
- Station G...**The estimation of the interval velocity model from Dix velocities using a neural network parameterization:** J. Khayrullaev, E. Iversen, M. Jakobsen, I. Berre (University of Bergen) Speaker: Jokhongir Khayrullaev
- Station H...**Multi-head attention spatial-temporal sequence inversion model based on variational mode decomposition:** G. Li, Z. Zong, L. Song, F. Chen, Q. Meng, Y. Shen, J. Yang (China University of Petroleum (East China)) Speaker: Gen Li

## CO<sub>2</sub> P2 Modeling, Monitoring, and Screening

10:20 a.m.–12:00 p.m.

*Session Chairs: Erkan Ay and Francesca Fazzari*

**Location: Poster Location 2 (on the 3rd level)**

- Station E...**Integrated study for Geologic Carbon Storage in the coastal areas of the Gulf of Mexico:** R. Sabbagh, A. Tura (Colorado School of Mines) Speaker: Reinaldo Sabbagh
- Station F...**SEAM Numerical Modeling of CO<sub>2</sub> Sequestration: Providing Data to Evaluate Geophysical Monitoring Methods:** M. Fehler (Fehler Consultancy LLC) Speaker: Michael Fehler
- Station G...**Large-scale carbon storage effects on up-dip freshwater: Simulating plume, pressure and salinity changes in the Wilcox Aquifer, DeWitt County, Texas, USA:** S. Avitt, C. Uroza, T. Meckel (University of Texas at Austin) Speaker: Sean Avitt
- Station H...**Ai-accelerated basin-scale carbon sequestration screening in the Gulf of Mexico:** M. Christie, V. Rabinovich, M. F. Etayo-Cadavid (S&P Global) Speaker: Miguel Etayo-Cadavid

## DAS P4 Long-Term Monitoring

10:20 a.m.–12:00 p.m.

*Session Chairs: Milad Bader and Xiaoyu Zhu*

**Location: Poster Location 7 (on the 3rd level)**

- Station E...**Focal mechanism estimation of microseismic events using DAS at the Utah FORGE EGS site:** J. Kim<sup>1</sup>, J. Ajo-Franklin<sup>1</sup>, S. Han<sup>2</sup> (1. Rice University; 2. Seoul National University) Speaker: Jaewoo Kim
- Station F...**Falling Rocks Localization and Early Warning Based on Distributed Acoustic Sensing:** P. Wu, C. Gu, Y. Zhong, Z. Yuan, J. He, Z. Chen (Tsinghua University) Speaker: Peng Wu
- Station G...**Time-lapse full-waveform inversion of distributed acoustic sensing data:** H. Liu<sup>1</sup>, X. Fu<sup>2</sup>, X. Cai<sup>1</sup>, D. Trad<sup>1</sup>, K. Innanen<sup>1</sup> (1.





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University of Calgary; 2. China University of Petroleum (East China)) Speaker: He Liu

Station H... **Magnitude estimation of low-yield mining blasts using distributed acoustic sensing (DAS):** J. J. Miller (Penn State University) Speaker: Joseph Miller

### **FWI P8 VSP, Multiphysics, and Reservoir Characterization** 10:20 a.m.–12:00 p.m.

*Session Chairs: Gaurav Dutta and Guangchi Xing*

**Location: Poster Location 4 (in the Exhibit Hall)**

Station A... **Formulation and feasibility analysis of an approximate 3D FWI of multi-azimuth VSP data through cooperative 2D single-azimuth inversions:** A. Ziegler, J. Li, K. Innanen (University of Calgary) Speaker: Anton Ziegler

Station B... **Full waveform velocity and impedance inversion using joint OBN and DAS-VSP data:** Y. Yang, F. Chen, Y. Zhang (BGP) Speaker: Yang Yang

Station C... **Structural FWI jointly inverted with gravity and electromagnetics:** V. Becker<sup>2</sup>, G. L. Klein<sup>1</sup>, C. Mueller<sup>2</sup>, E. Schuenemann<sup>3</sup>, P. L. Smilde<sup>2</sup>, M. H. Krieger<sup>2</sup> (1. TEECsolutions; 2. TERRASYS Geophysics; 3. TEECware GmbH) Speaker: Markus Krieger

Station D... **Viscoacoustic full-waveform inversion of seismic refraction data for building P-wave velocity and attenuation models for constraining fracture networks in a sandstone catchment:** D. Kim, T. Zhu (Penn State University) Speaker: Donggeon Kim

### **FWI P9 Cycle-Skipping** 10:20 a.m.–12:00 p.m.

*Session Chairs: Valeriy Brytik and Nelly Omoruyi*

**Location: Poster Location 4 (in the Exhibit Hall)**

Station E... **From dynamic time warping to receiver extension: 3D time-domain FWI application:** M. Benziane<sup>1</sup>, R. Brossier<sup>1</sup>, L. Métivier<sup>2</sup> (1. Univ. Grenoble Alpes, ISTERre; 2. Univ. Grenoble Alpes, CNRS) Speaker: Ludovic Métivier

Station F... **Deep learning framework for mitigating cycle skipping in full waveform inversion:** M. Khatami, O. M. Saad, T. Alkhalifah (King Abdullah University of Science and Technology (KAUST)) Speaker: Muhammad Iqbal Khatami

Station G... **Extended full-waveform inversion using subsurface-offsets:** R. Akhmadiev<sup>1</sup>, J. Washbourne<sup>2</sup>, T. Nemeth<sup>2</sup>, Y. Wang<sup>2</sup>, S. Kaplan<sup>2</sup> (1. Stanford University; 2. Chevron) Speaker: Rustam Akhmadiev

Station H... **Efficient optimal transport full waveform inversion based on sinkhorn divergence:** G. Zhang, J. Zhang (University of Science and Technology of China) Speaker: Gongwen Zhang

### **MME P2 Exploration Methods and Studies** 10:20 a.m.–12:00 p.m.

*Session Chairs: Parth Pokar and Xiaolong Wei*

**Location: Poster Location 1 (on the 3rd level)**

Station E... **An analysis of ZTEM data over the Wasatch Project, Utah:** H. Peterson<sup>1</sup>, D. Sattel<sup>2</sup>, K. Witherly<sup>1</sup> (1. Condor Consulting; 2. EM Solutions) Speaker: Hannah Peterson

Station F... **New breakthroughs and exploration inspirations: Insight from the fine interpretation of the geological structure in Kuqa Depression, Tarim Basin, NW China:** F. Ning<sup>1</sup>, P. Li<sup>2</sup>

(1. Sinopec Exploration & Production Research Institute; 2. Stanford University) Speaker: Fei Ning

Station G... **Enhanced Uncertainty Quantification in Geophysical Inversion Using Langevin Transitional MCMC:** Z. Zhang, X. Wei, J. Sun, Y. Huang, X. Wu, J. Chen (University of Houston) Speaker: Ziang Zhang

Station H... **Assessing the influence of lithium concentration on dielectric permittivity using frequency-dependent coaxial probe measurements of various hypersaline ionic solutions:** J. C. Villarroel Salvatierra, D. M. Crisafulli, J. I. Amaro Estrada, L. W. Lake, C. Torres-Verdin (The University of Texas at Austin) Speaker: Julio Villarroel Salvatierra

### **NEF P3 Geologic Hydrogen 1** 10:20 a.m.–12:00 p.m.

*Session Chairs: Jiefu Chen and Lin Liang*

**Location: Poster Location 3 (on the 3rd level)**

Station E... **Impact of mineralogical changes on Geologic Hydrogen Production from Stimulated Serpentinization of Ultramafic Rocks:** C. C. Okezie, K. Oladoyin (New Jersey Institute of Technology) Speaker: Chinemerem Okezie

Station F... **Electrical Imaging Beneath a Fairy Circle for Geologic Hydrogen Investigation:** N. Perkovich (Colorado School of Mines) Speaker: Noah Perkovich

Station G... **An Integrated Workflow for Characterizing and Estimating Subsurface Volumes of Mafic and Ultramafic Rocks using Potential Field and Petrophysical Data: Examples from Central Alaska:** S. Bhattacharya, R. Arasada, E. Ukar (The University of Texas at Austin) Speaker: Shuvajit Bhattacharya

Station H... **Improving Hydrogen Storage Capability in Subsurface Caverns using Microporous Materials:** W. Yan<sup>1</sup>, R. Goteti<sup>2</sup>, A. Atilgan<sup>2</sup>, Y. Zayer<sup>2</sup> (1. Houston Research Center-Aramco Americas; 2. Aramco) Speaker: Weiyao Yan

### **NEF P4 Geologic Hydrogen 2** 10:20 a.m.–12:00 p.m.

*Session Chairs: Yawei Su and Sihong Wu*

**Location: Poster Location 4 (on the 3rd level)**

Station E... **Seismic waveform modeling of underground hydrogen storage:** J. Parsons, S. Mao, M. Mehana, N. Creasy (Los Alamos National Lab) Speaker: Jake Parsons

Station F... **Hydrogen Generation and Reactivity in Organic-Rich Sedimentary Rocks:** J. Radovic<sup>1</sup>, P. Srinivasan<sup>1</sup>, Q. Fu<sup>1</sup>, Y. Zheng<sup>1</sup>, Y. Han<sup>2</sup> (1. University of Houston; 2. Texas A&M University San Antonio) Speaker: Jago Radovic

Station G... **Role of Clays in Underground Hydrogen Storage: Insights from Lab-Scale Adsorption Experiments:** S. Nyamasekpor, S. Sharma, S. Bowman (West Virginia University) Speaker: Seyram Nyamasekpor

Station H... **A geologic hydrogen investigation using magnetotelluric phase tensors: Case study from the UAE Ophiolite blocks:** B. Cherkose, M. Zhang, Y. Li (Colorado School of Mines) Speaker: Biruk Cherkose

# Poster Sessions

Thursday, 28 August

## NS P7 Seismic Applications 1

10:20 a.m.–12:00 p.m.

Session Chairs: Christine Downs and Ivan Sanchez

Location: Poster Location 1 (in the Exhibit Hall)

- Station A ... **Seismic imaging of the hole of Bad Aussee:** T. Burschil<sup>1</sup>, G. Gabriel<sup>2</sup>, D. C. Tanner<sup>2</sup>, C. Schmalfuss<sup>3</sup>, M. Fiebig<sup>3</sup> (1. Federal Institute for Geosciences and Natural Resources; 2. LIAG Institute for Applied Geophysics; 3. University of Natural Resources and Life Sciences) Speaker: Thomas Burschil
- Station B ... **Mapping new subsurface faults in the Butte Valley, northern California:** P. Neupane (Southern Methodist University) Speaker: Prajwal Neupane
- Station C ... **Subsurface Characterization of a VMS Deposit Using Seismic Inversion:** L. S. Aguilar, S. Hanafy (KFUPM) Speaker: Sherif Hanafy
- Station D ... **Full-waveform inversion for imaging density variability in the near-surface soils:** Y. Kawasaki<sup>1</sup>, S. Minato<sup>2</sup>, R. Ghose<sup>1</sup> (1. Delft University of Technology; 2. National Institute of Advanced Industrial Science and Technology) Speaker: Yusuke Kawasaki

## NS P8 Seismic Applications 2

10:20 a.m.–12:00 p.m.

Session Chairs: Madeleine Pels and Shelby Peterie

Location: Poster Location 2 (in the Exhibit Hall)

- Station A ... **Enhancing near-surface imaging accuracy by joint tomography of surface and cross-hole seismic first-arrival travel times:** Z. Shi, T. Du, W. Yang (Zhejiang University) Speaker: Zhanjie Shi
- Station B ... **Probability characterization of subsurface strata combining borehole and surface wave data:** D. Wang<sup>1</sup>, M. Peng<sup>1</sup>, L. Liu<sup>2</sup>, Y. Liang<sup>1</sup>, J. Shen<sup>1</sup>, F. Tao<sup>3</sup>, J. Zhao<sup>4</sup>, Y. Ma<sup>5</sup> (1. Tongji University; 2. Chinese Academy of Science, Institute of Rock and Soil Mechanism; 3. Wuhan Changsheng Engineering Exploration Technology Development Co., Ltd; 4. Northwest A&F University; 5. Yunnan Agricultural University) Speaker: Liu Liu
- Station C ... **Using Horizontal-to-Vertical Spectral Ratio (HVSr) Analysis to Explore Site Effects at the Mississippi Embayment Boundary:** Z. Abbasi Hafshejani, S. Pezeshk (University of Memphis) Speaker: Zohreh Abbasi Hafshejani
- Station D ... **Robust Seismic First Arrival Picking Using Gray Level Co-Occurrence Extracted Texture Features:** A. A. Elmak, W. A. Mousa (King Fahd University of Petroleum & Minerals) Speaker: Wail Mousa

## NS P9 Environmental Geophysics

10:20 a.m.–12:00 p.m.

Session Chairs: Moses Adebayo and Nicolette Filippone

Location: Poster Location 2 (in the Exhibit Hall)

- Station E ... **Drone-based Multiphysics Approach for Rare Earth Elements Quantification in Coal Wastes:** Y. Wu<sup>1</sup>, C. Chou<sup>1</sup>, J. Chuang<sup>2</sup>, B. Dafflon<sup>1</sup>, J. Panaro<sup>3</sup>, B. Quiter<sup>1</sup>, E. Rofors<sup>1</sup>, R. Thibaut<sup>1</sup>, J. Wang<sup>1</sup>, M. Whittaker<sup>1</sup>, J. Wu<sup>1</sup> (1. Lawrence Berkeley National Laboratory; 2. Rochester Institute of Technology; 3. Robindale Energy) Speaker: Yuxin Wu
- Station F ... **Time-lapse Hydrogeophysical Characterization of Non-sanitary Ghazipur Landfill, India:** S. Pathan<sup>1</sup>, T. Arora<sup>1</sup>,

A. Shakas<sup>2</sup>, R. Pandey<sup>3</sup> (1. CSIR- National Geophysical Research Institute, Hyderabad; 2. ETH Zurich; 3. Indian Institute of Science Education and Research (IISER)) Speaker: Sohelkhan Pathan

- Station G ... **Long-term near-surface monitoring in Singapore using traffic-induced seismic noise:** P. Wang, Y. Li (Purdue University) Speaker: Pinghao Wang

## SP P13 Emerging Technologies

10:20 a.m.–12:00 p.m.

Session Chairs: Jing Yang and Heather Yao

Location: Poster Location 3 (in the Exhibit Hall)

- Station A ... **Conical-Wave Reverse Time Migration of Vertical Seismic Profiling Data:** C. Young<sup>1</sup>, J. C. Shragge<sup>1</sup>, S. Haines<sup>2</sup>, T. Collett<sup>2</sup> (1. Colorado School of Mines; 2. USGS) Speaker: Cullen Young
- Station B ... **Separation-PINN: Seismic P- and S-waves mode separation with physics informed neural networks:** X. Mu, S. Cheng, T. Alkhalifah (King Abdullah University of Science and Technology) Speaker: Xinru Mu
- Station C ... **PS tomography with cross-correlation-based event matching:** X. Liu<sup>1</sup>, B. Yu<sup>1</sup>, M. Luo<sup>1</sup>, M. Liu<sup>2</sup>, H. Niu<sup>2</sup>, L. Chen<sup>2</sup> (1. Sinopec Tech Houston; 2. Sinopec) Speaker: Xuejian Liu
- Station D ... **Tomography based on full azimuth angle domain common imaging gathers:** M. Hu<sup>1</sup>, K. Zhang<sup>2</sup>, Z. Li<sup>2</sup> (1. The National Key Laboratory of Deep Oil and Gas; 2. China University of Petroleum (East China)) Speaker: Min Hu

## STUD P6 Energy, Carbon Sequestration, and Geology

10:20 a.m.–12:00 p.m.

Session Chairs: Adedoyin Adeyilola and Weiting Peng

Location: Poster Location 5 (on the 3rd level)

- Station E ... **Assessing Geothermal Gradient and Hot Sedimentary Aquifer (HSA) Potential for Geo-Exchange in Western Colorado, Piceance Basin:** J. Tellez, M. Longworth (Colorado Mesa University) Speaker: Michael Longworth
- Station F ... **SEG EVOLVE 2024-2025 Carbon Solutions: New perspectives into the Sleipner Carbon Dioxide Capture and Storage project operation:** M. Vijayaraj<sup>3</sup>, C. Luddeke<sup>1</sup>, D. Gadela<sup>3</sup>, N. A. George<sup>3</sup>, A. T. Bebeba<sup>2</sup>, K. Gupta<sup>4</sup>, D. Joshi<sup>4</sup>, P. Kumar<sup>3</sup>, N. Vedanti<sup>3</sup> (1. Clausthal University of Technology; 2. Institut Teknologi Sumatera; 3. CSIR-National Geophysical Research Institute; 4. Indian Institute of Technology (Indian School of Mines)) Speaker: Christian Luddeke
- Station G ... **Petroleum system elements in the context of a unified stratigraphic framework for the Bowen-Gunnedah-Sydney Basin System of eastern Australia:** J. Naher (University of Connecticut) Speaker: Jasmin Naher
- Station H ... **Structural modeling of duplex thrusting in the Ramelau Mountains of Timor-Leste: Implications for relative timing of hydrocarbon migration and trap emplacement:** T. Nielsen<sup>1</sup>, R. Harris<sup>1</sup>, L. Peatross<sup>1</sup>, A. Araujo<sup>2</sup>, E. Martins<sup>2</sup> (1. Brigham Young University; 2. Institute of Geosciences of Timor-Leste) Speaker: Tanner Nielsen



## Thursday, 28 August

### STUD P7 Provenance, Climate, and Tectonics

10:20 a.m.–12:00 p.m.

*Session Chairs: Maria Madariaga and Aydin Shahtakhtinskiy*

**Location: Poster Location 6 (on the 3rd level)**

Station E... **Sediment Highways of the Late Cretaceous: Provenance and Depositional Age of the Iron Springs Formation in Southwest Utah:** J. A. Robinson, S. M. Hudson, B. B. Britt, T. D. Austin (Brigham Young University) Speaker: Julie Robinson

Station F... **WITHDRAWN**

Station G... **Detrital zircon provenance of Guadalupian sandstones on the Northwestern Shelf of the Delaware Basin: Implications for postorogenic Permian sediment dispersal in Western Pangea:** S. Juárez-Zúñiga<sup>1</sup>, D. F. Stockli<sup>1</sup>, C. Kerans<sup>2</sup> (1. The University of Texas at Austin; 2. UT Austin-BEG) Speaker: Sandra Juárez-Zúñiga

Station H... **Milankovitch paleoclimatic, tectonic, and sedimentary signals in late Permian-Early Triassic fluvial-lacustrine records, Bogda Mountains, NW China:** W. Zhang, W. Yang (Missouri University of Science and Technology) Speaker: Wan Yang

### AAS P6 Reservoir Property Estimation

1:20 p.m.–3:00 p.m.

*Session Chairs: Huseyin Tuna Erdinc and Atish Roy*

**Location: Poster Location 5 (in the Exhibit Hall)**

Station A... **Diffusion-based sampling for quantifying subsurface uncertainty:** M. Xu, M. Liu, K. Zhang, T. Mukerji (Stanford University) Speaker: Minghui Xu

Station B... **Multi-task deep learning prediction of porosity, permeability and saturation:** J. Gui, J. Gao, S. Li, B. Liu, X. Guo (Research Institute of Petroleum Exploration & Development-Northwest (NWGI), PetroChina) Speaker: Jinyong Gui

Station C... **Stratigraphic structure-constraint walkaway-VSP first arrival tomographic velocity inversion:** G. Zhang<sup>1</sup>, H. Cai<sup>1</sup>, Z. Zhang<sup>2</sup>, W. Wei<sup>2</sup>, T. Wang<sup>2</sup> (1. University of Electronic Science and Technology of China; 2. R&D Center for Ultra-Deep Complex Reservoir Exploration and Development, CNPC, Engineering Research Center for Ultra-deep Complex Reservoir Exploration and Development, Xinjiang Uygur Autonomous Region) Speaker: Guanlei Zhang

Station D... **Research on nonlinear inversion method of effective pressure in fractured reservoirs based on rock physics constraints:** J. Dai<sup>2</sup>, Y. Zeng<sup>1</sup>, L. Zhang<sup>2</sup>, S. Wen<sup>2</sup>, K. Zhang<sup>1</sup>, W. Ying<sup>2</sup> (1. Beijing Precise Energy Technology Co., Ltd; 2. PetroChina Southwest Oil & Gasfield Company) Speaker: Yongjian Zeng

### AAS P7 CO<sub>2</sub> and Methane Study

1:20 p.m.–3:00 p.m.

*Session Chairs: Arnab Dhara and Son Phan*

**Location: Poster Location 6 (in the Exhibit Hall)**

Station A... **Reservoir characterization utilizing quantitative seismic interpretation and machine learning techniques for geological carbon storage:** V. Sreejesh, C. Knapp, J. Knapp (Oklahoma State University) Speaker: Venmarathil Sreedhar Sreejesh

Station B... **Carbon storage estimation of the red beds of Hazlehurst using post-stack seismic inversion, southern Georgia:** F. D. Nsansi (Oklahoma State University) Speaker: Faustino Nsansi

Station C... **What Restricts the Lateral Extent of CO<sub>2</sub> Plume Migration at the Sleipner Injection Site?:** B. O. Nwafor<sup>1</sup>, J. Castagna<sup>1</sup>, E. Bass<sup>1</sup>, R. Van Eykenhof<sup>2</sup> (1. University of Houston, Tx; 2. Lumina Geophysical LLC) Speaker: Basil Nwafor

Station D... **Research on Coalbed Methane Prediction Methods in the Ordos Basin:** H. Pan, J. Gao, W. Zhao, J. Gui (Research Institute of Petroleum Exploration & Development-Northwest (NWGI), PetroChina) Speaker: Hui Pan

### FWI P10 Elastic

1:20 p.m.–3:00 p.m.

*Session Chairs: Junxiao Li and Wanying Wang*

**Location: Poster Location 4 (in the Exhibit Hall)**

Station A... **Elastic FWI imaging by linking Lamé gradients to P/S reflections in heterogeneous media:** Q. Du<sup>1</sup>, W. Lv<sup>1</sup>, J. Bai<sup>2</sup>, P. Sun<sup>3</sup>, Z. Zou<sup>3</sup>, J. Zhang<sup>3</sup>, L. Ren<sup>1</sup> (1. China University of Petroleum (East China); 2. AspenTech; 3. Bureau of Geophysical Prospecting Inc., CNPC) Speaker: Qizhen Du

Station B... **The power of elastic FWI with sparse ocean-bottom node acquisition for complex subsalt imaging:** H. Xing, R. Huang, Y. Li, C. Macesanu, F. Liu, M. Hegazy (TGS) Speaker: Richard Huang

Station C... **Multiparameter inversion applied to ocean bottom node data from Santos Basin:** J. Burren, E. Frugier (TGS) Speaker: Jon Burren

Station D... **Source-independent integral wavefield elastic parameter waveform inversion:** B. Zhang, G. Wu, Z. Jia, L. Yang, S. Yang (China University of Petroleum (East China)) Speaker: Sen Yang

### NS P10 Voids and Seismic

1:20 p.m.–3:00 p.m.

*Session Chairs: Thomas Burschil and Yanwei Zhang*

**Location: Poster Location 2 (in the Exhibit Hall)**

Station A... **3-D elastic time-reverse imaging of a void anomaly: A case history:** M. Pels, J. C. Shragge, A. Girard (Colorado School of Mines) Speaker: Madeleine Pels

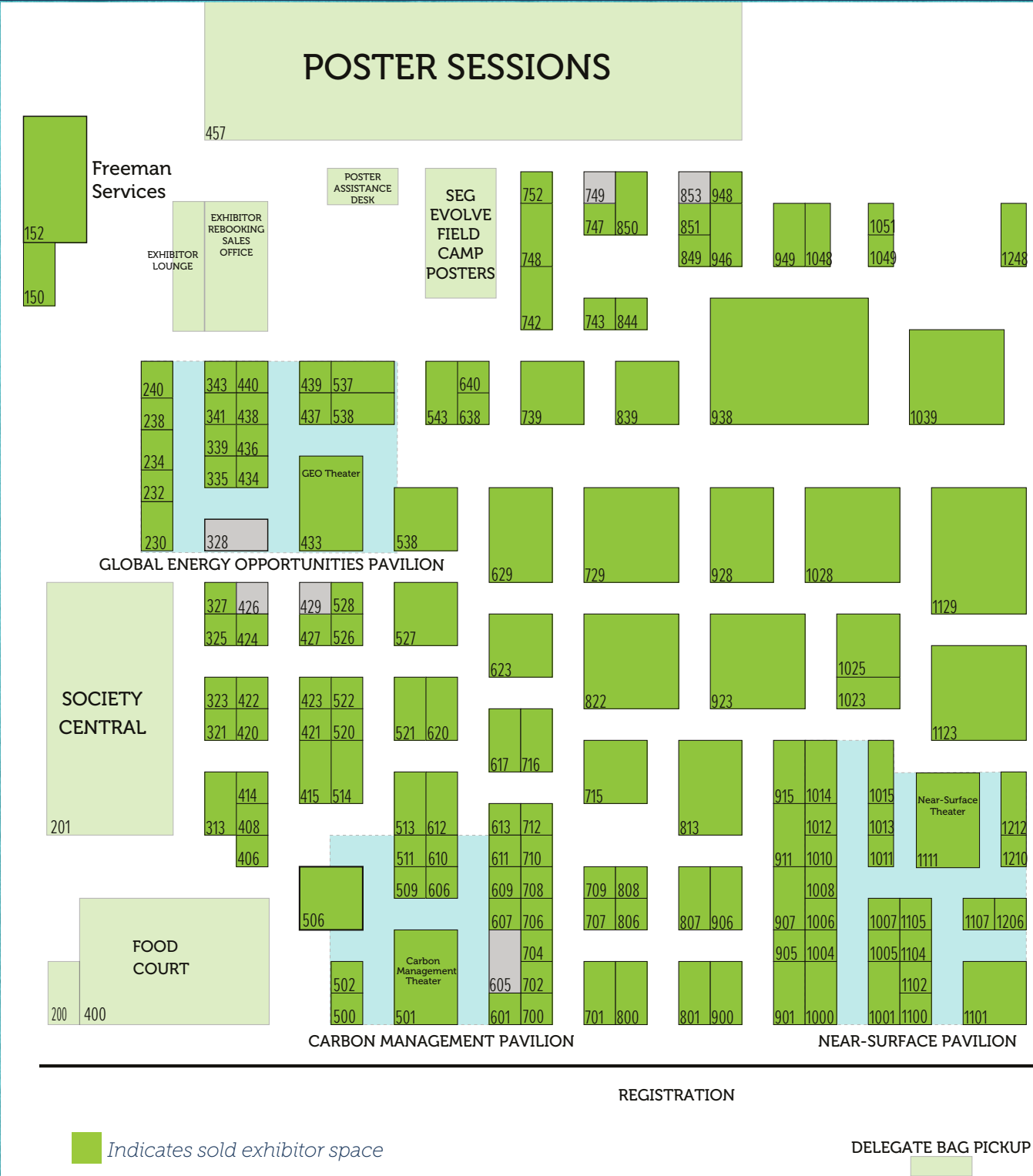
Station B... **Monitoring near-surface changes using wind turbine-induced seismic noise:** S. Mukherjee, Y. Li (Purdue University) Speaker: Sayan Mukherjee

Station C... **Analysis of the influence with climate on near-surface data:** S. Yuan, H. Cui, H. Li, X. Zhang, Z. Cheng (BGP) Speaker: Hongliang Cui



# Exhibit Hall

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**Exhibition 9:00 a.m.–3:00 p.m.**

5:30 p.m.–7:30 p.m.



# Featured Exhibitors



AAPG American Association of Petroleum Geologists ..... 201



AAPG Divisions ..... 201



AAPG Foundation ..... 201



Absolute Imaging Inc. .... 1701



Applied Acoustics .....1007



Core Laboratories ..... .613



Datapages ..... 201



ExxonMobil..... 1948



Fairfield Geotechnologies ..... 1401



GeoEdges Inc .....525



GeoMark Research ..... .800  
www.geomarkresearch.com



Geophysical Technology Inc. ....1729  
www.geophysicaltechnology.com



GeoScienceWorld ..... .321



Geoteric .....1451



GeoTomo LLC .....1823  
www.geotomo.com



Imaged Reality Ltd. ....1823



inApril .....1413



Jio, a Lumina Company .....2019



Lumina Geophysical .....1123



MicroSeismic .....1616



NAPE Expo .....327



Optiseis Solutions Ltd. ....1001



Ovation Data ..... 1920



Paulsson, Inc. (PI) .....514



PMI Industries, Inc. ....1102



RadExPro seismic software .....1102



SAExploration .....1413



Sandia National Laboratories .....1008



SEG Advanced Modeling Corporation (SEAM) ..... 201



Society of Exploration Geophysicists (SEG).....201



SEG Foundation ..... 201



SLB.....1223



Spotfire .....2026



TERRASYS Geophysics .....1051



ThinkOnward .....2025



Wildcat Technologies, LLC .....638



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# Exhibitor List

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Exhibitor list is current as of 23 July 2025

Exhibitor Name	Booth Number	Exhibitor Name	Booth Number
AAPG American Association of Petroleum Geologists	201	EDCON-PRJ, Inc.	807
AAPG Divisions	201	Eliis	813
AAPG Foundation	201	Ellington Geological Services	511
Absolute Imaging Inc.	1701	EMGS ASA	1351
ACT-GEO	323	Energy & Geoscience Institute	707
ACTeQ	1729	Engenius Software	1551
Advanced Geophysical Technology Inc	1930	Envoi Limited	343
Advanced Logic Technology SA	606	ESRI	1815
Advanced Resources International, Inc	611	ETAP	439
Advertas	708	Evotec	948
American Association of Professional Landmen	327	EXHIBITOR LOUNGE	247
ANCAP – Uruguay	434	EXHIBITOR REBOOKING/SALES OFFICE	347
Applied Acoustics	1007	ExxonMobil	1948
Aramco	1439	Fairfield Geotechnologies	1401
ARK CLS	629	Falmouth Scientific, Inc. (FSI)	1000
Asociación Mexicana de Geofísicos de Exploración (AMGE)	426	Faraday Geophysics	1805
Aspen Technology	928	FGPS Limited	629
Atlas Fluid Controls	849	FOOD COURT	400, 1901
Automated Seismics	1006	FOOD COURT KIOSK	200, 1700
Avalon Sciences Ltd	915	FOSINA	424
Badley Ashton	509	FREEMAN SERVICE DESK	152
Baker Hughes	822	Fugro	1106
Baylor University Department of Geosciences	2007	Gathering Place	2035
BEG CORE EXHIBIT	506	Geo Ex Machina (GEM)	1355
BEICIP Inc.	709	GEO EXPRO	422
BGP Inc.	1427	GeoCare Benefits Group Insurance Program	408
Bits of Nature LLC	513	GEODEVICE	1104
Bluware, a CMG company	1600a	GeoEdges Inc	528
Bruker AXS	702	Geox MCG	1249
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Cegal LLC	2015	Geometrics Inc.	1023
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dGB Earth Sciences	1048	Global Energy Opportunities (GEO) Theater	433
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DUG	1239	GVERSE GeoGraphix	1716
Dynamic Graphics, Inc.	1816	Halliburton	923
EAGE - European Association of Geoscientists and Engineers	2024	Hanyang University (RISE.ml)	640
Earth Signal Processing Ltd,	2031		



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HASTING MICRO-SEISMIC CONSULTING, INC.	500	PMI Industries, Inc.	1102
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inApril	1413	RadExPro seismic software	1450
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Kuwait Oil Company	1939	SAExploration	1413
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Stone Quilt Design	325	University of Houston	1905
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STUDENT AND FACULTY LOUNGE	2051	University of Oklahoma	1908
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subsurfaceAI Inc.	533	Viridien	938
TDI-Brooks	715	VSProwess	1705
Tech Limit	748	WAVERITY	1804
TEECsolutions LLC	1248	Weihai Sunfull Geophysical Exploration Equipm	1749
Teledyne Marine	1101	Welligence Energy Analytics	1903
Telemark Energy Services	1004	Western Colorado University	2004
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Troika International Limited	629	Zhejiang Lab	1206
UH/DGH Center for Hydrocarbon Exploration	341	Zonge International	607



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