spwla today

NEWSLETTER

VOLUME 7 - ISSUE 2

MARCH 2024

Petrophysics Journal

CALL FOR

PAPERS

- PAPERS ACCEPTED FOR REVIEW THROUGHOUT THE YEAR
- SPWLA CONFERENCE PROCEEDINGS ARE ELIGIBLE FOR SUBMISSION
- PUBLISHED PAPERS AVAILABLE ON SPWLA AND ONEPETRO DIGITAL LIBRARIES

MORE INFORMATION ON SPWLA.ORG

SOCIETY OF PETROPHYSICISTS AND WELL LOG ANALYSTS

ISSUE SPONSORSHIP AVAILABLE

INSIDE THIS EDITION

The Society of Petrophysicists and Well Log Analysts Board of Directors 2023–2024

President
Jennifer Market
Consultant
Perth, Australia
President@spwla.org

President-Elect
Iulian Hulea
Shell Global Solutions
The Hague, Netherlands
President-Elect@spwla.org

VP Technology
Robert "Bob" Gales
Halliburton
Houston, TX USA
VP-Technology@spwla.org

VP Technology-Elect
Harry Xie
CoreLab
Houston, TX USA
VP-Technology-Elect@spwla.org

VP Education
Kelly Skuce
Core Petrophysical Consulting
Calgary, Canada
VP-Education@spwla.org

VP Finance, Secretary, and Administration
Jing Li
Occidental Petroleum Corporation
Houston, TX USA
VP-Finance@spwla.org

VP Publications
Stephanie Perry
Continental Resources
Oklahoma City, OK, USA
VP-Publications@spwla.org

VP Information Technology
Tom Bradley
Baker Hughes
Den Helder, Netherlands
VP-InfoTech@spwla.org

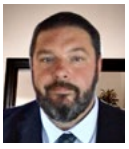
VP Communications
Chelsea Newgord
ExxonMobil
Houston, TX USA
VP-SocialMedia@spwla.org

REGIONAL DIRECTORS

N. America 1
Javier Miranda
DeGolyer and MacNaughton
Houston, TX, USA
Director-NA1@spwla.org

N. America 2
Clara Palencia
Intertek Westport Technology Center
Houston, TX USA
Director-NA2@spwla.org

Latin America
Nelson Suarez
Halliburton
Mexico City, Mexico
Director-LA@spwla.org



Europe
Mathias Horstmann
SLB
Stavanger, Norway
Director-Europe@spwla.org

Middle East/Africa
Jennifer Duarte
Geoactive Ltd
Abu Dhabi, UAE
Director-ME@spwla.org

Asia Pacific
Yuki Maehara
SLB
Tokyo, Japan
Director-Asiapacific@spwla.org

Executive Director
Sharon Johnson
SPWLA
Houston, TX 77017
(+1) 713-947-8727
sharon@spwla.org

Managing Editor
Elizabeth Naggar
(+1) 713-444-3495
editor@spwla.org

Publication Manager
Anna Tarlton
InkSpot Printing
2301 S. Shaver
Pasadena, TX 77502, USA
(+1) 713-472-1100
orders@inkspotprinting.com

CALENDAR OF EVENTS

March 21–22, 2024
Petrophysicist Bootcamp: Maximizing Insights and Potential
Online Training Webinar
Instructor: Yuan Cong
www.spwla.org

March 26–28, 2024
Practical Geomechanics Training Class
Instructor: Tom Bratton, PhD
Online Training Webinar
www.spwla.org

March 27–29, 2024
SEG/SPE/SPWLA Workshop: From Measurement to Theory: Adventures in Rock Physics, Petrophysics, and Engineering – Honoring the Contributions of Professor Carl H. Sondergeld
Norman, OK, USA
https://seg.org/calendar_events/adventures-in-rock-physics-petrophysics-and-engineering/

April 16, 2024
Resistivity Methods and Applications for Petrophysicists
Instructors: Roland Chemali and Hanming Wang
Online Training Webinar
www.spwla.org

May 18–22, 2024
SPWLA 65th Annual Symposium
Sheraton Grand Rio Hotel & Resort
Rio de Janeiro, Brazil
www.spwla.org

May 23, 2024
SPWLA 2024 NMR SIG Conference
Baker Hughes Rio Energy Technology Innovation Center (RETIC)
Rio de Janeiro, Brazil
www.spwla.org

September 12–13, 2024
The 29th Formation Evaluation Symposium of Japan
JOGMEC-TRC
Chiba, Japan
www.spwla-jfes.org

October 6–9, 2024
SPWLA – Asia Pacific Regional Conference
Theme: "Traditional and Transitional Petrophysics – Enhancing and Integrating Petrophysics Into the Challenges of Today and Tomorrow"
Bangkok, Thailand
www.spwla.org

About the Cover

The SPWLA 65th Annual Symposium approaches! This year's symposium will be hosted in Rio de Janeiro. Don't miss this once-a-year opportunity. Make your plans today to attend!

Notice: Articles published in *SPWLA Today* are not subject to formal peer review but are subject to editorial review and are verified for technical consistency and relevance.

From the President

Jennifer Market
SPWLA President
2023–2024

Hello again from the President's desk. While all of you in the northern hemisphere are looking forward to the warmer days of spring, down here in Perth, we are excitedly looking forward to days so cool that we have to fry our eggs inside rather than on the car bonnet!

North or south, spring or autumn (or Djeran), we can all look forward to May in Rio de Janeiro and the 65th Annual Symposium. It is really shaping up to be a memorable event – we'll have workshops, technical sessions, exhibits, awards ceremonies, field trips, student paper competitions, evening galas, and (my favorite part) meeting friends old and new. There will be great ideas exchanged, puzzles posed, and news exchanged, and we'll hopefully all go home with some knowledge gained. For those who can't attend in person, we will be thinking of you and hope you can share in the knowledge exchange through the papers and publications.

For this edition, I'd like to say a few words about what goes on in the planning of our annual symposia and discuss some changes we are planning to implement to simplify the location selection process for 2026 and beyond, as well as make it easier for chapters both small and large to be able to host a successful symposium. We'd also like to replicate the simpler model on a smaller scale for hosting our regional conferences via headquarters, which should greatly simplify the work on the host chapters of regional events.

Each year, planning our symposia is a joint effort shared between the business office, the host chapter, and the technical committee, along with help from the board of directors and the membership at large.

Why do we hold the annual symposia?

- Our annual symposium is the biggest event of the year for SPWLA.
- It is where we meet to exchange ideas, educate, hold student competitions, promote new technology, and host our annual business meetings and award ceremonies.
- It is also our largest revenue generator that enables us to provide services to our members throughout the year, so it is essential that it is a financial success as well as a technical one.
- It is thus essential that we select a location that will enable that success.

Why do we hold our symposia in different locations each year when our sister societies generally practice a model where the main annual conference is held in a few fixed places (most often Houston), and only the regional conferences are held outside the US? The benefits include:

- Engendering a sense of international community in the society
- Allowing members near the symposium location to attend with low travel costs who might not otherwise be able to attend the annual symposium – by moving it around the world, it will be in everyone's neighborhood periodically.
- Our selected locations are generally in oilfield hubs with either a large national oil company and/or the presence of numerous IOCs. This allows for prime sponsorship/participation from those companies when it is in their "backyard."
- Allowing local/regional students to travel to attend in large numbers
- Exposing our members to different types of petrophysical puzzles and solutions
- Exposing our members to international cultures and working methods

How do we select our symposia locations?

- We have selected our locations through a bid process. Our local chapters compiled a bid book and a proposal to host an annual symposium at the location of their choice (for example, the Brazil Chapter bid to host in Rio de Janeiro, or the Norwegian Chapter bid to host it in Iceland (and later in Stavanger).
- Small chapters can combine together to host a conference – it needn't be just the large chapters that can host.
- The bid includes many aspects of hosting the conference, from forming a committee, selecting venues (with detailed quotes), finding sponsors, ensuring that it is easy for the majority of members to reach the location, organizing field trips, speakers' gifts, etc.
- It is part of the role of the President-Elect to work with interested chapters to prepare bids.
- The bid is presented to the board of directors, who vote on which location best suits the society and has the highest chance of having a successful conference. Consideration is given to having a successful financial as well as technical conference. Successful locations tend to be those in oil and gas hubs, where many members and their companies are located and where sponsorship is likely from local companies. The financial stability of the host country, the cost of

hotels and catering, the ready availability of flights from the world's transport hubs, the ease of travel (e.g., visas, etc.), as well as the cultural/natural appeal of the location are all considered carefully.

- Once selected, the organizing committee works with the business office and the technical committee to create a successful conference.
- The host chapter receives a portion of the net profits of the symposia.
- There was a "tradition" for many years of alternating symposia in North America and outside North America due to the large percentage of the membership based in North America, but this is not a requirement in the bylaws.

Who is responsible for what tasks?

Business Office

- Financial arrangements with the venue and suppliers
- Collecting registration fees
- Exhibitors
- Organise business/award events
- On-site organisation
- Collecting Sponsorship funds
- Liasing with Evening Event Sponsors
- Jointly with technical committee
  - Call for abstracts
  - Abstract Selection/Author Notification
  - Collecting paper/presentation submissions

Local Organising Committee (Host Chapter)

- Local liasing with the venue and sponsors
- Design a Logo
- Select/confirm Keynote Speaker
- Print Signage
- Purchase Speaker's gifts
- Arrange IT at venue
- Prepare a final report (post symposia)

Jointly Business Office/Host Chapter

- Publicity
- Sponsorship
- Organise Field trips & spouse events

What hasn't always worked well?

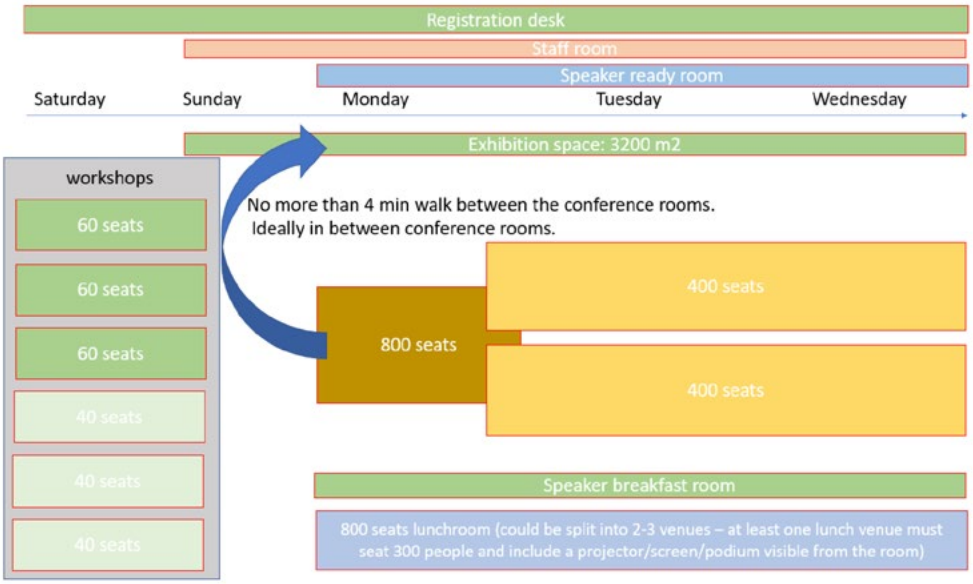
- Over the past decade, the duties described in the host chapter handbook have devolved more and more to the business office, which has not only led to a heavier workload, but it has frequently been the case that there have been miscommunications or duties forgotten by the host chapter that had to be picked up last minute by the business office, which can be stressful.
- The business office is very experienced at understanding well the venue/AV/IT/catering/exhibition requirements that will lead to the best possible conference. The host chapter is new almost every year, and while it is possible to follow general guidelines on the configurations needed, practical mistakes have been made (such as having the exhibitors on a different floor than the technical talks so that few people saw the exhibits and exhibitors thus withdrew in future years, etc.)
- The bidding chapters have often struggled to understand the current budget proposal spreadsheets as they include items that are fixed (such as registration fees, etc.) that the host chapter doesn't influence.
- Sponsorship – Local sponsors are proposed at bid time, and when the bid is won, no contact details are available for the prospective sponsors to be contacted and followed up with.

To improve the process, President-Elect Iulian, Executive Director Sharon, and I have been working together on a streamlined method. The following changes are proposed:

Simplifying the bid process:

The Planning Timeline will be increased. In the future, bids will be due in November, ~19 months before the conference. The decision will be made by February, 16 months before the meeting.

Selecting the Venue: An example drawing showing various viable configurations will be provided to chapters interested in hosting the conference to help visualize what is needed for a successful event and to help communicate with the hotel (further sketches to follow).



Budget Simplification: For the budget, only the venue/catering charges (which are primarily the cost that varies by location/ venue) need to be provided. As some venues bundle catering with meeting rooms (e.g., meeting room space is free if a certain minimum spend for catering and/or room rental is met), it may be suitable that the venue proposal be formatted differently, so long as all of the key components in this spreadsheet are included. It is essential to quote for three sizes of the conference (300, 600, and 900 attendees), and any venue that can offer flexibility on the size of the conference with short notice is particularly attractive.

		Min	Mid	High
	Registrant count	300	600	900
Item	Cost			
Meeting Room Space (including tax)				
Exhibit Space (including tax)				
Food & Beverage (including tax)				
IT & AV Equipment & Support (including tax)				
Workshop Rooms (inc tax)				
Poster Boards (inc tax)				
IT & AV Equipment & Support				

Roles and Responsibilities: The handbook is being revised to reflect the shift of duties from the host chapter to the business office, which has become the de facto practice in the last decade. Details to follow.

In summary, the changes will all be toward simplifying the processing of bidding for a symposium and clarifying the roles and responsibilities so that any chapter knows up front what is expected and can decide if they want to have the honor of hosting a symposium in their neighborhood.

For any chapters interested in hosting the 2026 symposium, please formally submit your interest with the President-Elect (president-elect@spwla.org) by 15 March 2024 (if you haven't already done so), and our illustrious PE will share the bid material package. Due to our extensive work behind the scenes, the bids will be a bit later than we hope for the future. The deadline for proposals for the 2026 symposium will be 15 April 2024, with notification before the May symposium.

Cheers to all, and I look forward to seeing you in Rio!
Jennifer

SPWLA
BRAZIL CHAPTER

From the Editor

Stephanie Ellen Perry
2022–2024
Vice President Publications

Dear all,

We hope you enjoy this month's newsletter highlighting the year's forthcoming events. We appreciate the chapter and community news from all portions of the society around the world. We hope these newsletters continue to offer a platform to stay informed, linked across space and time, and facilitate discussions, contributions, and involvement. We draw your attention to the calendar of events and hope everyone is currently considering plans to attend the annual symposium.

Very sincere regards,
Stephanie Perry

Iulian Hulea
SPWLA President-Elect
2023–2024

Dear colleagues,

Greetings from your President-Elect! I would like to update you on my activities in the last period, which I am guessing was a busy period for you as well. There are two things I would like to update you on: The SIGs' interactions and updates in VP Technology-Elect responsibilities.

The interaction with the Special Interest Groups (SIG) leaders continued in December. The highlight of this meeting was the financial health of the SIGs and the interaction with the SPWLA business office. Sharon Johnson was very kind to join us and clarify various aspects of the financial interactions between the SPWLA and SIGs. Worth highlighting is that the head office has volunteered to help the SIGs with event setup, registration, etc. Also, Sharon reminded the participants that the SIG officers should never make out-of-pocket payments expecting SPWLA reimbursement. While the SIGs were started at the beginning as knowledge-only entities, they now have financial commitments with additional tax implications. Just like the chapters, the SIGs can use their funds for scholarships, etc.

We have updated the responsibilities of the VP Technology-Elect role, and while it is obvious that the VP Technology-Elect should support the VP Technology where needed, additional responsibilities have been added to support the VP Education. Helping with the Student Paper competition and organizing the workshops/field trips at the symposium have been added.

The last thing I would like to mention is that we are working together with the President to simplify the symposium bid process. The proposal aims to improve the standardization of the process, reduce the risk for local chapters, and enable smaller chapters to participate in the bid process. Again, it is an honor and pleasure to serve the SPWLA in this volunteering role!

Iulian Hulea
2023–2024 President-Elect

Robert H. (Bob) Gales
2023–2024 VP Technology

After a brief lull for the holidays, we are in the next round of activity for a successful 65th Annual Symposium in Rio.

The workshop sponsors have been busy and have put together a great group of instructors for all eight workshops (posted online and listed in the last *SPWLA Today*). I've had the pleasure of sitting in on many of the planning sessions and wish I could attend them all. More detailed agendas and instructor bios will be posted shortly.

In addition to the workshops, the Brazil Symposium Committee has arranged for a great field trip and core viewing sessions.

I am in the process of grouping the talks for the General and Special Organized Sessions. Thus far, we have only had a few withdrawals, so it looks good for a full slate of oral presentations. Remember the upcoming deadlines:

March 11, 2024: Submit your draft manuscript to stephanie@spwla.org to be reviewed by a Technical Committee member.

April 15, 2024: Submit your final manuscript and copyright form to stephanie@spwla.org. Papers not received by April 15 will be deleted from the program. Papers cannot be withdrawn after the deadline. ***There will be no extensions***

May 1, 2024: Submit your presentation to stephanie@spwla.org to be reviewed by your session chairs. Presentations not received by this deadline will be deleted from the program.

I'm excited about the range and depth of topics as I group into five to six talk sessions. We have everything from mud logging and core analysis to the full spectrum of openhole and casedhole measurements and applications, including several papers on operations.

A note on your trip planning – Confirm your registration and book your rooms at the Sheraton Grand Rio Hotel & Resort. This link will direct you to the Symposium and Workshop registration and hotel reservations. Display event – SPWLA 65th ANNUAL SYMPOSIUM. As of April 10, a visa is required for many nationalities. Sharon and Stephanie will be posting information on Brazil visa requirements.

We have been meeting to review processes that can further streamline the process for the future. We welcome your feedback. Feel free to contact me or Harry Xie at VP-Technology@spwla.org or VP-Technology-Elect@spwla.org.

Once again, thank you for your enthusiastic support. This is what makes SPWLA a great organization for sharing knowledge. Harry and I look forward to seeing you in Rio at another great symposium.

Regards,
Robert H. (Bob) Gales
2023–2024 SPWLA VP Technology

Harry Xie
2023–2024 Vice President
Technology-Elect

Dear colleagues,

It is just a little over 2 months away from another exciting SPWLA symposium in beautiful Rio de Janeiro, Brazil. All the preparations are progressing on schedule, as Bob stated in his column. Let's make sure that your manuscripts are submitted on time if you are an author and that you register and book your hotel rooms to attend the symposium. Most importantly, do your homework by going through the abstracts of all the talks and posters and preparing some questions for the presenters. The symposium will select the best papers, Distinguished Speakers, etc. We encourage you to participate as much as possible in all the selection processes, as your input is very valuable because, after all, the SPWLA is your society.

As Bob mentioned, we have been meeting to review processes of the abstract selection, workshop setup, and other technical events that can further streamline the process for the future. One of the advantages of having the position of VP Technology-Elect is that all the planning for the symposium and other technical events can happen months earlier to implement your recommendations and suggestions or to address your concerns. I am privileged to serve as the very first VP Technology-Elect. I have learned a great deal from Bob in the past months and have been thinking about potential improvements. Many of you have expressed your willingness to join the technical team together with suggestions and recommendations. I would very much welcome more feedback, your consideration in joining the Technical Committee, and other volunteer work for the SPWLA. Feel free to contact me at VP-Technology-Elect@spwla.org (before the symposium) or by other means.

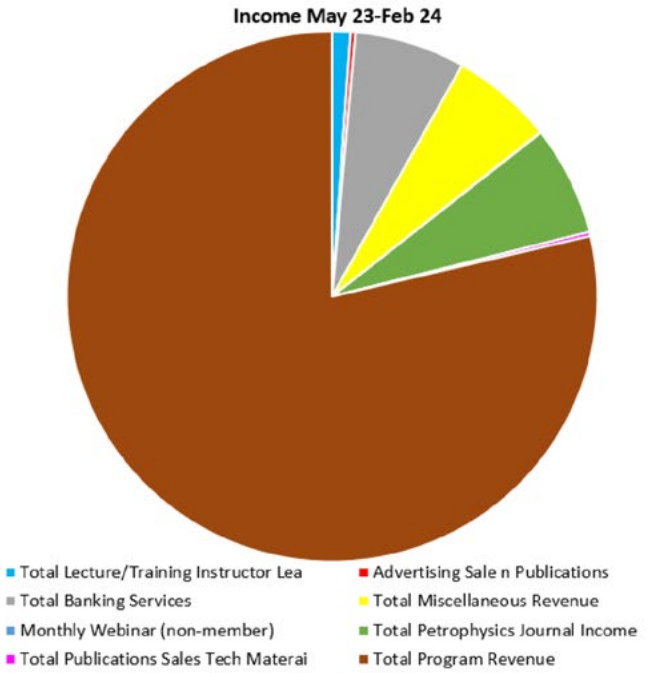
I am looking forward to seeing you in Rio at the great symposium.

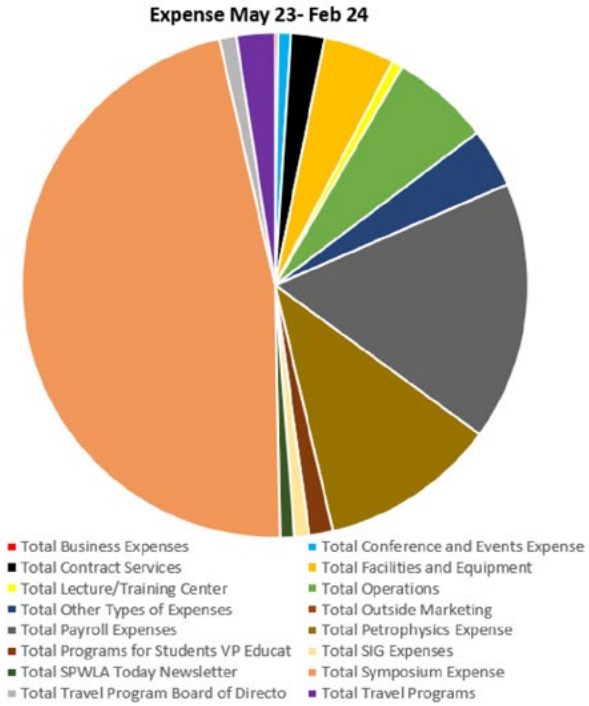
Yours sincerely,
Harry Xie
2023–2024 SPWLA VP Technology-Elect
VP-Technology-Elect@spwla.org

Jing Li
2023–2025 VP Finance, Secretary, and Administration

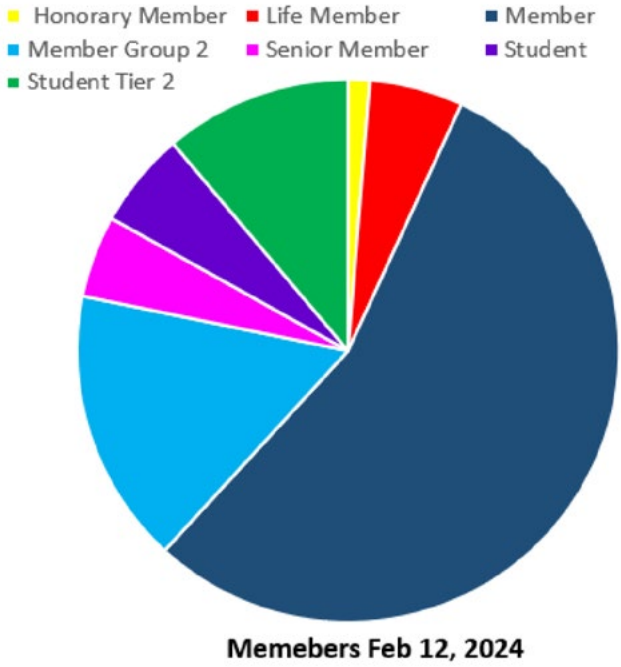
Dear SPWLA colleagues,

The financial status of the SPWLA has been steadily growing and remains healthy. The total assets in February 2024 increased by 9.05% compared to February 2023. Below are the pie charts in percentages that show the income and expenses for the period between May 2023 and February 2024.





The society has a total of 2,402 members. Below are the percentages of different categories.



Memebers Feb 12, 2024

The 2024 SPWLA Finance Committee has invited eight current and previous board of directors to serve on it. The SPWLA is spending efficiently, and the Finance Committee is exploring new revenue sources to maintain and expand its existing services and innovative programs. The goal is to ensure the long-term financial stability of the SPWLA.

Please continue to support the SPWLA's workshops, conferences, annual symposiums, and other initiatives. If you have any ideas for new sources of revenue, feel free to share them with us. Together, we can work towards a brighter future for all.

I appreciate your continued support.

Sincerely,
Jing Li,
2023–2025 VP Finance, Secretary, and Administration
VP-Finance@spwla.org

Kelly Skuce
2022–2024 Vice President Education

Hello SPWLA colleagues,

Hey all! I hope everyone is getting hyped up for the Annual Symposium in Rio de Janeiro! I am eager to see the abstracts for **the International Student Paper Competition** to be held in Rio de Janeiro on **May 19, 2024**. This is the Sunday prior to the start of the SPWLA Annual Symposium.

You will have seen the emails from the SPWLA office and the social media posts about the competition. There is a date change to the submission deadline for students. We have decided to move the cutoff date out to **March 9** at midnight. Some schools are having issues with scheduling and the like with other competitions. This will prompt a change to the announcement of accepted abstracts to **March 20**. If we are done with the judging earlier, we will make an announcement, but it is based on the number of abstracts we receive. The proposed acceptance of abstracts is six from each of the three categories: Undergrad, Masters, and Doctorate.

Evaluation Criteria: The judging rubric is very similar to the one the Technical Committee uses for the symposium abstracts. Details can be found on the website at https://www.spwlaworld.org/call-for-abstracts-verbose/.

Prizes: Prizes are for 1st, 2nd, and 3rd place for each of the three categories (Undergrad, Masters, and Doctorate). Last year's prize amounts were: 1st – $1,200, 2nd – $1,000, and 3rd – $800. All are in US dollars. We budgeted the same amount for this year.

There will also be prizes similar to the NMR SIG award last year for Best NMR Paper. Other SIGs are looking to provide Best Paper prizes in their respective interest category. Stay tuned for announcements from the SPWLA on social media and email.

All questions can be sent to me at vp-education@spwla.org or papercompetition@spwla.org, where Gisela and I can help answer them.

Kelly Skuce // SPWLA VP-Education, 2022–2024
Gisela Miranda de Souza Almeida // Chair of 2024 SPWLA International Student Paper Contest

Upcoming SPWLA Courses: There are several online courses currently being offered by the SPWLA.

- TENTATIVE – Practical Guide to Openhole Logging – Yuan Cong – March 21–22, 8 am to 12 pm CDT
- Practical Geomechanics Course - Tom Bratton – March 26–28, 8 am to 12 pm CDT
- Resistivity Methods and Applications for Petrophysicists – Roland Chemali/Hanming Wang – April 16, 8 am to 3 pm CDT

Get signed up now!

Keep on learning,
Kelly Skuce
2022–2024 VP Education

Chelsea Newgord
2023–2025
VP Communications

Hello SPWLA colleagues,

Have you been following our Instagram, @spwlaorg? I'm excited to share that the person behind our recent fun and informative stories is our new volunteer, Angela Stefany Tarazona Robles! She has been helping me since January to make stories from the posts and enhance access to website links. Be sure to follow that page to see! Angela is a master's student in petroleum engineering at the Universidad Industrial de Santander (UIS). Angela also manages the Colombia Professional Chapter Instagram: @spwla_cap_colombia, and she is an advisor for the UIS SPWLA Student Chapter.

At the January Board of Directors meeting, I made a motion to rename this position from "VP Social Media" to "VP Communications." The purpose of the title change is to be more descriptive of this position and consistent with the role and responsibilities. This name emphasizes the goal of communication, with social media as a tool. SPWLA members received a ballot link via Survey Monkey on February 20, 2024, and we're excited to see that this change was approved! The updated SPWLA Bylaws can be found on the website.

Here are a few screenshots (from mid-February) of the SPWLA Instagram account, @spwlaorg, if you would like to follow!

Chelsea Newgord
VP Communications 2023–2025
VP-SocialMedia@spwla.org

Regional Understandings–North America 1

Javier Miranda
2022–2024 North America 1
Regional Director

We will be starting the last third of the first quarter of the year, but it feels like it's been longer with so much happening at SPWLA! We are now full steam with the Annual Symposium planning, including both the Organizing and Technical Committees fully dedicated to their tasks to bring us the best in class of petrophysics in 2024 when we gather for the most important SPWLA technical and networking event: The Annual Symposium in Rio!

Bob's team has done an incredible job not only with the technical program but also coordinating the workshops and geological and core tours before the conference. The papers for the 2024 Annual Symposium have already been selected, and the authors have been notified. Read more details and results in Bob's and Harry's columns to learn more about what they have been doing to offer a strong and diverse technical program for the conference in Rio de Janeiro. Now, we need to work on the final details, such as reviewing manuscripts and preparations for workshops to have everything ready for you.

Hotel registration is now open at the Sheraton Grand Rio Hotel & Resort. I recommend you take advantage of the special rates at the conference hotel and secure your room as soon as possible. Speaking of Rio, please check if you need a visa to visit Brazil. Doing so in advance can save you last-minute worries. I am not an immigration expert, but I checked the website for e-visas, and the process looks easy to follow. For more information, including registration, technical program, visa, hotel reservation, etc., check the following link:

Display event - SPWLA 65th ANNUAL SYMPOSIUM

Let's tune up the final details, planning, and hard work to have the best SPWLA International Annual Symposium we have ever seen in Rio de Janeiro!

Houston continues to be a very important center for petrophysics and energy in general. The Houston Chapter's multiple activities every month reflect that vibe, with lunch seminars and networking events happening frequently. Most recently, the SPWLA Houston Westside presented a Lunch Seminar: "Learnings From Impact and Implications of Signal-to-Noise in NMR T_1-T_2 Logging of Unconventional Reservoirs" by SPWLA Distinguished Speaker Olabode (Bode) Ijasan. In addition, the now well-known monthly networking event happening every last Thursday of the month at the same location and time (5 to 8 pm at Cedar Creek Bar & Grill, 1034 West 20th Street, 77008) has also been a success. The most recent ones were on Thursday, January 25, and February 29. The next one will be on **March 28**. **Picture 1** shows the event in January. Feel free to attend if you are in town. You will regret not attending before! The entire SPWLA community is invited; no need to RSVP, so join us even if you are in town for a visit. Come at your own leisure; no payment is required. Come and mingle with fellow petrophysics enthusiasts. These social events have become a tradition in Houston and are well-attended by petrophysicists, geologists, geophysicists, engineers, and managers. You can also expect to see current and past SPWLA international board members and recognized names in our industry, including SPWLA Distinguished Speakers and past awards winners! I invite you to register or check their website to stay tuned in on what is going on in each section during the month of March, with some lunch seminars happening:

Houston SPWLA Chapter Society of Petrophysicists & Well Log Analysts - (spwla-houston.org)

Speaking of awards, submissions have now been completed, and we have a great variety of strong candidates who will make an interesting selection process. I encourage you to nominate your peers for awards when the season opens again. You know how much they have accomplished, and although I am not one of those who works for awards (many of you are like that), it is important to recognize that our profession and society would not be the same without the talent, dedication, and effort of these outstanding volunteers.

The University of Texas at Austin and The University of Houston Student Chapters started their planning to host their internal student paper competition to select their representatives for the ISPC. They also received funds from SPWLA International to support these activities. I want to thank the board for their approval, but especially Sharon Johnson (SPWLA Executive Director) and Kelly Skuce (VP Education) for their help in materializing such support. I hope to hear something from other student chapters. In the meantime, I keep sending them many emails and notifications for opportunities, funds, etc. I am here to help, but I cannot do that if I do not receive any answer or communication from you. Thanks to those two student chapters mentioned above, who keep the communication channels open. I wish I had more time to visit these universities. Speaking of universities, I recently attended the UT Austin Networking Event at the NAPE Conference, where I had the opportunity to have a nice conversation with past SPWLA President Zach Liu and SPWLA Instructor and Denver officer Patricia Rodrigues (**Picture 2**).

Finally, the election period is coming soon. We all got notifications about the initial slate of candidates. Tegwyn did great work in putting together an excellent selection of candidates worthy of leading our society. I feel confident about the future of the SPWLA when looking at the next generation of SPWLA leaders. Best wishes to all the candidates in the election, and I encourage all members to participate in the voting during March. It is very simple and straightforward. You have the right to choose your leaders. Make it count! Let's stay strong during 2024, continue being involved in your local and international activities, professional, and student chapters, **volunteering, and joining SPWLA initiatives if you have not done so. Let's bring our society to the next level!**

Feel free to reach me at my official email address below for any recommendations, ideas, questions, etc. I am working with others on some additional initiatives for our members. More details will be shared in upcoming columns. I also encourage local professional and student chapters to reach out if they need me for support or to advertise anything happening at their local professional and student chapters!

Javier Miranda
2023–2024 North America Region 1 Regional Director
Director-NA1@spwla.org

Picture 1—SPWLA Houston Chapter hosted their monthly networking event.

Picture 2—NAPE Conference Networking Event. From right to left: Zach Liu (Past SPWLA President), Patricia Rodrigues (SPWLA Instructor and Denver Officer), and Javier Miranda (North America I Regional Director).

Regional Understandings–Middle East/Africa

Jennifer Duarte
2022–2024
Middle East/Africa
Regional Director

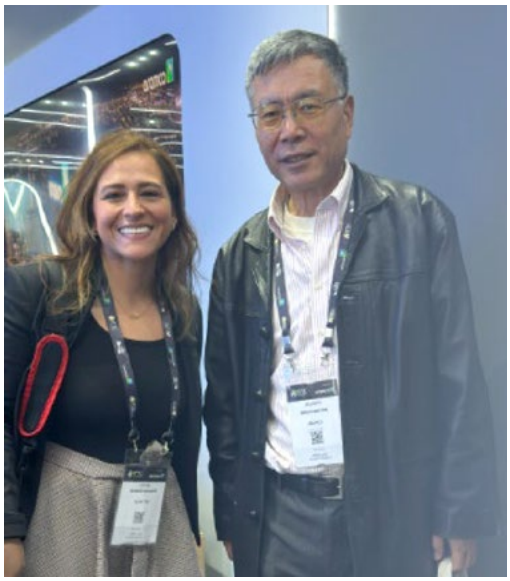
Dear SPWLA members,

These past 2 months have been great for our local chapters in the Middle East and Africa. Our society continues to succeed thanks to the dedication and passion of our members across the region.

In November, I introduced a new chapter in Algeria—**SPWLA Algeria Chapter**. The chapter has been actively engaging with members through a series of insightful online webinars. These events have provided valuable learning opportunities and promoted connections within our community. I encourage you to follow this chapter on their newly established LinkedIn page, where they promote all their upcoming events: **https://www.linkedin.com/company/spwla-algeria-chapter/about/**. Additionally, they have set up an email address for any inquiries or suggestions: **algeria.chapter@spwla.org**.

Meanwhile, our chapter in Saudi Arabia—**SPWLA Saudi Arabia Chapter**—continues to demonstrate excellence in planning their local events. I had the pleasure of catching up with the VP Technical Programs, **S. Mark Ma**, during IPTC, a recent conference in Al-Khobar, where we discussed their upcoming 14th workshop focusing on geothermal energy. Abstract submission is now open. The event will take place from 30 April to 1 May 2024 in Al-Khobar, KSA. I also had the opportunity to meet with one of our student chapters in Saudi Arabia during the IPTC—**SPWLA KAUST Student Chapter**. I met with Prof. **Bicheng Yan**, who is the faculty advisor helping the students with their local activities. We discussed the process of booking an SPWLA Distinguished Speaker and how we can help from the board. Here are some photos from the conference.

(From left to right) Jennifer Duarte and Prof. Bicheng Yan (SPWLA KAUST Student Chapter).



(From left to right) Jennifer Duarte and S. Mark Ma (SPWLA Saudi Arabia Chapter).

In Abu Dhabi, our **SPWLA Abu Dhabi Chapter** has embraced a return to in-person gatherings, hosting technical events locally. It's encouraging to see our members coming together once again and sharing insights face to face.

As we look ahead, if you are an SPWLA member, don't forget to cast your vote for the upcoming BOD elections, including this one—**Regional Director Middle East and Africa** position. Please take the time to familiarize yourself with all three candidates. Each of them brings a wealth of experience and dedication to the table.

Until next time…

Best Regards,
Jennifer Duarte
2022–2024 SPWLA Middle East and Africa
Director_me@spwla.org

SPWLA 65th Annual Logging Symposium
Rio de Janeiro, Brazil, May 18–22, 2024
Technical Program

NOTE: Tentative Program: Selected papers listed below may not be in the order in which they will be presented. The final technical program may differ from that shown due to paper withdrawals. All technical sessions will be held at the Sheraton Grand Rio Hotel & Resort. Photography and video/audio recording of any kind are strictly prohibited in all areas, including technical sessions, workshops, and exhibition hall.

To read the abstracts in full, please click here:

ACOUSTICS TECHNOLOGY AND APPLICATIONS

A Case Study Utilizing Cost-Effective LWD Ultrasonic Imaging Technology in Unconventional Asset Development
Pingjun Guo, Brett Zastoupil, Laurin Musso, Steven Sowers, and Mohammed Bousaleh, ExxonMobil

A Novel Method for Evaluating Hydraulic Fracturing Effect Utilizing Acoustic Logging
Siyi Li, Wenhui Chen, Hao Zhang, Liming Jiang, Xuekai Sun, Kun Shao, Hao Sun, Yanwei Zhao, and Peng Shi, Acoustic Research Center, China National Logging Corporation

A Stabilized Real-Time Slowness Estimation Method for Compressional Waves by Using Kalman Filtering
Hao Sun, Chunhao Yu, Xuekai Sun, Liming Jiang, Husong Ling, Xianping Liu, and Siyi Li, China National Logging Corporation, CNPC

Biot Coefficient From Sonic Logs With Laboratory Data Calibration – A Brazillian Presalt Field Case Study
Marcio José Morschbacher, Guilherme Fernandes Vasquez, Marcos Pozzato Figueiredo, Julio Cesar Ramos Justen, and Flavia de Oliveira Lima Falcao, Petrobras

Calibration of the Anisotropic Rock Physics Model and Its Petrophysics and Geomechanics Applications
Sergey Vorobiev, ITOIL-SV; Timur Zharnikov, Aramco Innovations; Vladimir Vorobyev, ITOIL-SV; Christopher Ayadiuno and Zainab Ibrahim, Saudi Aramco

Enhanced LWD Quadrupole Shear Processing Provided Reliable Shear for Reservoir Characterization: A Case Study From Deepwater Gulf of Mexico
Lei Wu and Alisa Kukharchuk, Baker Hughes; Gary Ostroff and Brian LeCompte, Murphy Oil

Formation Acoustic Properties Analysis Workflow Based on an Innovative Cement Evaluation Log Behind Multiple Casing Strings
J. Adam Donald, Kamaljeet Singh, and Erik Wielemaker, SLB; Amr Serry and Sultan Budebes, ADNOC

High-Resolution Peripheral Imaging Around a Borehole With a Source-Independent TV-Constrained Full Waveform Inversion Approach
Zhilong Fang, School of Resources and Environment, University of Electronic Science and Technology of China; Meng Li, School of Earth Sciences and Engineering, Xi'an Shiyou University; Hua Wang, School of Resources and Environment, University of Electronic Science and Technology of China

Looking for Producible Fractures on Different Scales
Fernando Gomes de Mello e Silva, Antonio Persio Silvestre, and Alexandre Kolisnyk, Petróleo Brasileiro S.A.

Real-Time LWD Sonic Processing Enabled by Data-Driven Machine Learning
Lin Liang, Ting Lei, Yixin Wang, Matt Blyth, Michiko Hamada, and Naoki Sakiyama, SLB

The Evaluation and Correction of Photoelectric Factor in the Presence of Large Standoff and Heavy Muds
Bair V. Banzarov, Andreas Vogt, and Nicklas Ritzmann, Baker Hughes

CASED-HOLE FORMATION EVALUATION AND RESERVOIR SURVEILLANCE

A Data-Driven Method for Formation Slowness Estimation Behind Casing
Xuekai Sun, Acoustic Research Center, China National Logging Corporation; Haochun Yu, Jun Zhou, and Jingqi Lin, China National Logging Corporation; Siyi Li, Acoustic Research Center, China National Logging Corporation; Hao Chen, China National Logging Corporation; Xianping Liu, Hao Sun, and Ran Zhang, Acoustic Research Center, China National Logging Corporation

An Evaluation Cement Method Using Gamma-Gamma Density Imaging Logging in a Double Casing Well
Yiming Yu, Feng Zhang, Luyu Zhong, and Zhenghua Hu, School of Geoscience, China University of Petroleum (East China); Yuexiang Dai, CNPC Logging (CPL)

Borehole Effect Correction in Pulsed-Neutron-Neutron Logging for Formation Capture Cross-Section Determination
Guofeng Yang, Wenzheng Peng, Hongfa Ye, Zhengyan Wang, Meng Chen, and Xiangjun Liu, School of Geoscience and Technology, Southwest Petroleum University

Cement Bond and Corrosion Logging With Ultrasonic Phased-Array Transducer
Roel Van Os, Izabela Titton, Zheng Li, Hiroshi Hori, Patrick Girolami, Gilbert Tardivel, Orland Guedes, Gulnara Ishberdina, and Kamaljeet Singh, SLB

First-Ever Seven Pipe Corrosion Evaluation for Comprehensive Assessment of Pipe Integrity in Complex Well Completions
Ahmed E. Fouda, Junwen Dai, Huiwen Sheng, Mahmoud Saada, Neil Ostermann, and Sushovon Roy, Halliburton

From Leak Path Detection to Quantitative Flow Profiling: The Exciting Journey of the Noise
Giuseppe Galli, Marco Pirrone, and Saida Machicote, Eni SpA

Managing a Unique Subsea Field Through Depressurization – An Update on the North Sea Machar Field After Five Years of Acquiring Cased-Hole Surveillance
Alexandra Love, Xiaogang Han, Thomas Harpley, and James Hoad, BP

Novel Through-Tubing Casing Measurement With Azimuthal Sensitivity for Game-Changing Proactive Multi-Casing Corrosion Measurement
Matthew Gavin, Andrew Smith, Marc Ramirez, Sushant Dutta, Jun Zhang, Adam Ostrowski, and Negah Ardjmandpour, Baker Hughes; Johan Kverneland, TotalEnergies EP Norge

Obtaining Johan Sverdrup Field Remaining Oil Saturation From a Variety of Logging Data
Brice Fortier, Hege Christin Widerøe, Margarete Kopal, and Eirik Berg, Equinor; Tom Bradley and Tor Eiane, Baker Hughes

Overcoming Cased-Hole Logging Challenges to Assess Waterflood Conformance in Clair Ridge Segment 2B
Alexandra Love, Xiaogang Han, James Hoad, and Laurence Burchell, BP

Successful Avoidance of Production Hazards From Subseismic Faults on a Multiple Horizontal Well Project in Permian Basin, Texas
Karim Sabaa, Baker Hughes; Derek Buster, Consultant; Amer Hanif, Ehsaan Nasir, and Eduardo Cazeneuve, Baker Hughes

Surpassing the Challenges of Cement Evaluation on Presalt Wells
Janio Cornelio, Kamaljeet Singh, and Emerson Rodrigues, SLB; Lorena Bicalho and Diego Brasil, Petrobras

The Technology of Magnetic-Pulse Flaw Detection-Thickness Measurement of Multistring Wells by the Transient Method
Gulnara Golovatskaya and Aleksandr Potapov, JSC Research and Production Enterprise VNIIGIS; Aleksandr Shumilov and Mingjun Xie, Perm State University

The Road Through Microannuli: Advanced Ultrasonic Log Analysis and Mechanistic Modeling for Leak Rate Quantification
Saida Machicote, Marco Pirrone, and Giuseppe Galli, Eni S.p.A.

Through-Tubing Casing Deformation Inspection Based on Data-Driven Koopman Modeling and Ensemble Kalman Filter
Lijian Jiang, Linh Ho Manh, Qinshan Yang, Alexander Tarasov, Jinsong Zhao, Marvin Rourke, and Neil Sookram, GOWell; Mohamed Larbi Zeghlache, Saudi Aramco

Unlocking Reservoir Potential: Strategic Role of Saturation Logs in Cased Hole for Waterflooding Optimization
Patricio Zamora, SLB

CORE AND PVT – LOG VALIDATION AND RESERVOIR UNDERSTANDING

Core Cleaning for Wettability Restoration – How Clean Is Clean?
Hussain Al Qatari, Halliburton; Shouxiang (Mark) Ma, Aramco; Ahmed Hafez and Taha Okashah, Halliburton

Experimental Study on the Change of Resistivity of Synthetic Methane Hydrate Under Different Saturation and Clay Composition Conditions
Yin Lu, Wang Meng, and Zhu Jiangmei, China Oilfield Services Limited

Investigation of Wettability of Rock Components via Water Adsorption Isotherms
Isa Silveira de Araujo and Zoya Heidari, The University of Texas at Austin

Pore System Analysis in the Golfo San Jorge Basin: A Regional Overview
Juan Javier Fabiano, Alejandro D'odorico, and Sergio Bosco, YPF

Practical Model for Estimating Reservoir Crude Oil/Water Interfacial Tension
Mohammed Fadhel Al-Hamad and Sharath Chandra Mahavadi, SLB; Shouxiang (Mark) Ma, Saudi Aramco; Wael Abdallah, SLB

DATA ANALYTICS AND AUTOMATION IN WELL-CENTRIC GEOLOGIC EVALUATION

A Machine-Learning Approach to Predict and Characterize Evaporites for H_2 Storage in Salt Cavities
Perrine Baron, Emmanuel Caroli, and Sabine Delahaye, TotalEnergies; Alexandre Pichat, AKKODIS

An Automatic Approach for Core-To-Log Depth Match in Presalt Carbonate Reservoirs
Adna Grazielly Paz de Vasconcelos, Danilo Jotta Ariza Ferreira, Rodrigo Bittencourt de Aguiar, Luciana Velasco Medani, Giovanna da Fraga Carneiro, and Lin Liang, SLB

An Autonomous Workflow to Evaluate Acoustic-Logging Waveform Quality
Gengxiao Yang and Hua Wang, University of Electronic Science and Technology of China

Cascaded Machine Learning in NMR: Unveiling a Continuous Grain-Size Distribution Approach for Tackling Sand Production Challenges
Muhamad Saiful Hakimi Daud, SLB; Seyed Mehdi Tabatabai, PETRONAS

Data-Driven Petrophysics: An Automated Approach to Parameter Optimization in Well-Log Interpretation
Kjetil Westeng, Aker BP ASA; Christian Lehre, Sopra Steria; Yann Van Crombrugge, Inmeta; Peder Aursand and Tanya Kontsedal, Aker BP ASA

Describing the Porosity of Presalt Carbonate Rocks Using Machine Learning
Gisella Roza Nunes, Jeferson Santos, Gilberto Raitz Junior, and Leonardo Borghi, Federal University of Rio de Janeiro

Enhanced AI-Driven Automatic Dip Picking in Horizontal Wells Through Deep Learning, Clustering, and Interpolation in Real Time
Alexandre Perrier, Alexis He, Nadège Bize-Forest, and Daniel Quesada, SLB

Fault Reactivation in Presalt Carbonate Reservoirs Based on Geomechanical Modeling – Case Study: Sapinhoá Field
Maria Juliana Jauregui Suárez, Universidad Industrial de Santander; Daniel Mauricio Rojas Caro, Alessandro Batezelli, Emilson Pereira Leite, Gelvam André Hartmann, and Maria Liceth Cabrera, Universidade Estadual de Campinas

Integrating Statistically Significant Laboratory Information in Variable T_2 Cutoff Logs for NMR Interpretation in Presalt
Bernardo Coutinho Camilo dos Santos, Willian Andrighetto Trevizan, Thais Fernandes de Mato, Edmir Ravazzi Franco Ramos, Leonardo Gonçalves, and Lucas Abreu Blanes de Oliveira, Petrobras

Novel Machine-Learning-Driven Framework for Rock Typing and Permeability Prediction Using Borehole and Spatial Data – A Case Study From a Supergiant Carbonate Reservoir in Abu Dhabi
Gennady Makarychev, Alaa Maarouf, Lulwa Almarzooqi, Luisa Ana Barillas Cortez, Midhun Madhavan, and Hussein Mustapha, SLB; Nader Gerges and Chakib Kada Kloucha, ADNOC

The Impacts of Bed Boundaries, Bed Thickness, and Sensor Measurement Resolution on Machine-Learning Facies Prediction
Andrew McDonald, Geoactive Limited; Edward Downer, Axis Well Technology; Ryan Banas, PetroRes Consulting; Tegwyn Perkins, Geoactive Limited

SPORSE: DIGITAL ROCK PHYSICS FOR FORMATION EVALUATION: ARE WE THERE YET?

Empirical Determination of the Effective Solid Modulus in Organic-Rich Shales
K. Larkin Spires, Lori Hathon, and Michael T. Myers, University of Houston; David Myers, MetaRock Laboratories; John Castagna, University of Houston

Evaluation of Genetic and Geometric Features Extracted Using Automatic Segmentation for the Characterization of Porosity and Permeability of Reservoir Facies From Tartaruga Verde Field, South of Campos Basin
Matheus Augusto Alves Cuglieri, Paulo Henrique de Oliveira, Marcelo Ramalho Albuquerque, and Leonardo Alencar de Oliveira, Petrobras

Fast and Automatic Extraction of Fracture Apparent Attitude Based on CT Images of Full-Diameter Cores
Ying Zhou and Xin Nie, Yangtze University

Influence of Salt Concentration and Type on Dielectric Permittivity of Rocks
Zullkuf Azizoglu and Zoya Heidari, The University of Texas at Austin

Insights of Core Analysis Data Interpretation by Use of Digital Rock Physics
Mohammed Fadhel Al-Hamad and Denis Klemin, SLB; Shouxiang (Mark) Ma, Saudi Aramco; Wael Abdallah, SLB

Mapping Mineralogy to 3D Digital Rock Using Multimodal Multidimensional Image Registration
Mohamed Sarhan, Lori A. Hathon, and Michael T. Myers, University of Houston; Alon Arad, Automated Analytics

Predicting Rock Compressibility Based on the Statistical Data From Micro-CT and Thin Sections
Ghaleb Al-Gobi, Michael T. Myers, and Lori Hathon, University of Houston

Synchrotron Source Zoom-Tomography of Porous Media at the MOGNO Beamline
Nathaly Lopes Archilha, Daphne Silva Pino, Talita Rosas Ferreira, Victor Ramon Martinez Zelaya, Everton Lucas de Oliveira, Aluizio Jose Salvador, Bruno Becker Kerber, Murilo de Carvalho, Gabriel Schubert Ruiz Costa, Paola Cunha Ferraz, Larissa Macul Moreno, Otávio Moreira Paiano, João F.G. de Albuquerque Oliveira, and Eduardo Xavier Miqueles, Brazilian Synchrotron Light Laboratory; Rodrigo Surmas, Petrobras; Harry Westfhal, Jr., Brazilian Synchrotron Light Laboratory

ENERGY TRANSITION – REDUCING SUBSURFACE RISK IN MODELING AND MONITORING

Creep-Cyclic Stress Tests in Salts for Underground Storage
Talha Hassan Khan, Michael T. Myers, Lori A. Hathon, and Gabriel C. Unomah, University of Houston

Dynamic Reservoir Rock Typing and CO_2 Flow Characteristics on Supercritical CO_2-Brine System in Reservoir Rocks
Muhammad Nur Ali Akbar and Rolf Myhr, Prores AS

Importance of Well Integrity Measurements Throughout the CCS Project Life Cycle
Dirk Valstar, Robert Laronga, Andrew Dodds, Alec Nettleton, and Casey Chadwick, SLB

Incorporating Emissions Into Wireline Formation Evaluation Risk Assessments
Lee Hyson, Hamish Munro, Ron Ford, and Guy Wheater, Gaia Earth Group

Quantifying the Impacts of Reservoir Geochemistry and Pore Structure on the CO_2 Diffusion and Leakage in Organic-Rich Mudrock Formations and Caprocks
Ibrahim Gomaa, Zoya Heidari, and D. Nicolas Espinoza, The University of Texas at Austin

Shallow Aquifer Sampling for Carbon Capture and Storage (CCS) – Development of a Low-Toxicity Tracer to Enable Low-Contamination Water Sampling in a Water-Based Mud (WBM) System
Michael Taplin, BP; Emilie Peyret, SLB; Phillip Jackson and Kirsty Hitchen, BP

FORMATION TESTING – RESERVOIR DYNAMICS AND FLUID CHARACTERIZATION

Asphaltene Characterization Using Downhole Fluid Mapping While Drilling – Fluid Characterization Case Study for Completion Optimization
Yon Blanco and Julian Pop, SLB; Rolando di Primio and Oyvind Stiro, AkerBP; Scotty Paul, Velerian Sanjao Lopez, and Marat Khaziev, SLB

Combination of Borehole Image Logs and Downhole Fluid Analysis Logs to Assess Reservoir Connectivity
Oliver C. Mullins, SLB; Bernd Ruehlicke, Zbynek Veselovsky, and Carsten Vahle, Eriksfiord; Peter Schlicht and Robert J. Laronga, SLB; Brandon Thibodeaux and Bilal Hakim, Talos

Disparate Fluid Distributions of Stacked Gas-Washed Reservoirs Are Successfully History-Matched via Forward Modeling of Fluid Mixing Processes
Tarek S. Mohamed, The University of Texas at Austin; Morten Kristensen, SLB; Carlos Torres-Verdín, The University of Texas at Austin; Oliver C. Mullins, SLB

Enlightening Reservoir Fluid Distribution and De-risking Brownfield Development With the Combination of Downhole and Surface Fluid Mapping Services
Aldrick Garcia Mayans, Alan Keith Fernandes, Andrea Di Daniel, Aleksandar Gligorijevic, and Ivan Fornasier, SLB; Siti Najmi Farhan Bt Zulkipli and Calvin Lowrans, PETRONAS Carigali

Estimation of Permeability From Electrical Resistivity Response Determination in Carbonate Rocks From the Sergipe Sub-Basin
Marcus Vinícius Corrêa, Maria Rosilda de Carvalho, Fernando Sergio de Moraes, and Victor Hugo Santos, CCT/LENEP/UENF/INCT-GP

Integrating Dual-Flowline Fluid Property Measurements for Guided Focusing and Cleanup Monitoring During Fluid Sampling
Melton Hows and Thomas Pfeiffer, Shell Exploration and Production Co.; Richard Jackson, Kai Hsu, Hua Chen, Evgeniya Deger, and Jules El-Khoury, SLB

Raman Spectroscopy for Gas Composition Analysis With a New Logging Tool for EOR, New Energy, and Scope 1 Applications
A. Ballard Andrews and Andrew Speck, SLB

Real-Time Fluid Monitoring and Classification Using Downhole Spectrometer Measurements
Kai Hsu, Richard Jackson, Hua Chen, Evgeniya Deger, Yoko Morikami, and Jules El-Khoury, SLB

GEOSTEERING / UDAR WELL PLACEMENT FOR OPTIMAL COMPLETION

A Fast Forward Modeling Method for Gamma LWD Using 1D Equivalent Integral in High Inclination or Horizontal Well
Cairui Shao and Zhiqiang Ma, China University of Petroleum (East China); Miantao Yu, China Oilfield Services Limited

Dielectric Permittivity From LWD Electromagnetic Measurements – Methods Comparison and Results Validation
Salah Al-Ofi, Baker Hughes; Shouxiang (Mark) Ma, Saudi Aramco; Jun Zhang, Baker Hughes

Energy and Spectrum of Transient Induction Measurements for Deep-Reading Looking Ahead Pengfei Liang, Qingyun Di, Wenxuan Chen, Wenxiu Zhang, Xinghan Li, and Ranming Liu, Institute of Geology and Geophysics, Chinese Academy of Sciences

Exploring Propagation Resistivity Measurements With Two Receiver Pairs
Holger Thern and Jun Zhang, Baker Hughes

High-Resolution 3D Reservoir Mapping and Geosteering Using Voxel-Based Inversion Processing of UDAR Measurements
Saad Omar, Diogo Salim, Mikhail Zaslavsky, and Lin Liang, SLB

Improved Detection and Description of 3D Sandstone Injectites in the Grane Field, Central North Sea via 1D Stochastic Inversion of UDAR Measurements
Nazanin Jahani, NORCE Norwegian Research Centre; Carlos Torres-Verdín, The University of Texas at Austin

Look-Ahead-While-Drilling Technology Assessment for Early Hazards Identification in Presalt Offshore Brazil
Antonio Mainieri Vieira da Cunha, Ralf Wilhelm Bohrer, Randolpho Lobo de Freitas Junior, Almir Rogério Pedroso, Geraldo Majela Sartori Brandão, Guilherme Augusto Amaral, Wilson Yoji Nakamura Junior, Fátima Andreia de Freitas Brasil, João Paulo Teixeira da Fonseca, Munir Pinto Koosah, João Antenor Prats Xavier, Caio Eduardo Barbosa Coutinho, Elisângela Cordeiro Pessoa, Eduardo Hilgenberg Mezzomo, Abel da Sila Hermida, and Fábio Pimenta Bernardez, Petrobras; Guillermo Marcelo Cuadros, Ligia de Matos, Charles Silva, Soazig Leveque, and Diogo Salim, SLB

Optimizing Well Placement Using Real-Time Ultradeep Resistivity Look-Around Inversion – Deepwater GOM Case Study
Franck Michel, David Lopez, and Do Dang Sa, Halliburton; Christopher Moyer, Amy Borgmeyer, Bobby Bodek, and Alejandra C. Maldonado Pena, Oxy

Predicting the Future With UDAR 3D Resistivity Modeling – A New Key to Unlock Multidimensional Reservoir Steering
Yazil Abbas, Mauro Viandante, Jianguo Liu, and Mikhail Zaslavsky, SLB; Per Erik Wærum, Sven Severin Gundersen, Øystein Spinnangr, and Abraham Wayne, Repsol Norge AS

Proactive Geosteering With New Multilayer Mapping Technology for Optimal Well Placement on the Edges of Mature Fields
Agustin Paladines, Camilo Tellez, Israel Campos, Alex Iza, Pablo Cisneros, Valeria Lucas, Vinicio Mena, Paul Cornejo, Andres Fonseca, Sergio Mata, Gustavo Núñez, José Rodas, and Patricio Zamora, SHAYA; Egor Kovarskiy, Alexey Cheprasov, Igor Hernandez, Guillermo Cuadros, and Manuel Garcia, SLB

Production Sustainability of a Challenging Heterogeneous, Mature Carbonate Reservoir: An Integrated Solution Comprising Near- and Far-Field LWD Measurements
Amr Serry, Shafiq Ahmed, and Sharifa Yousif, ADNOC; Sanathoi Potshangbam, Nada Al Sayed, and Asim Mumtaz, Baker Hughes

The Integration of Shallow to Ultradeep LWD Data: The Key to Geosteering and Improved Reservoir Understanding
Carlos Sarquez and Rosamary Ameneiro, Halliburton; Petter Vikhamar and Embla Galdal, Conoco Phillips; Nigel Clegg, Halliburton

Uncertainty Estimation for Ultradeep Azimuthal Resistivity Measurements Using Machine Learning
Pontus Loviken, Hui Xie, Gordana Draskovic, Nguyen Thanh Nhan, Keli Sun, and Kent Harms, SLB

Use of Multilayer Mapping-While-Drilling Technology for Field Exploration Strategy Optimization While Increasing Production
Oscar Navarro, Anthony Stuart, William Cage, Alan Santos, Juan Cárdenas, Daniel Lancheros, and Andrés Rocha, Hupecol; Egor Kovarskiy, Igor Hernandez, Guillermo Cuadros, Alexey Cheprasov, Santiago Piedra, Adriana Paulin, and Eslendy Lara, SLB

IMAGING TECHNOLOGY AND APPLICATIONS – BEYOND DIPS

A Job Planner Software for Oil-Based Mud Resistivity Imagers
Ahmed Fouda, Baris Guner, and Peter Barrett, Halliburton

Assessing the Impact of Image Data on Enhancing Rock Typing and Formation Evaluation
Pallavi Sahu and Zoya Heidari, The University of Texas at Austin

Assessment of Petrophysical Heterogeneity Based on Image Data
Pallavi Sahu and Zoya Heidari, The University of Texas at Austin

High-Definition Acoustic and Resistivity Imaging-While-Drilling Technologies: Experiences in the Brazilian Presalt Carbonate Reservoirs
Ana Patricia Cavalcanti de Castro Laier, Antonio Persio Silvestre, Erica Kato Pacheco Ferraz, Pamella Paiva Fernandes, and Anabela Porto Rosa, Petrobras; Guillermo Marcelo Cuadros and Andre Esteves, SLB

Image Data: The Unexplored Potential for Reservoir Characterization, Brazilian Presalt
Gilberto Raitz Junior, Théo Farhat, Jeferson Santos, and Carolina Ribeiro, Laboratory of Sedimentary Geology (Lagesed)

Integrated Application of Advanced Logging While Drilling for Understanding Altered Basement Rocks: A Case Study From the Norwegian North Sea
Sayyid Ahmad, Halliburton; Lars Riber, AkerBP and University of Oslo; Ingrid Piene Gianotten, Sanaz Javid, and Ophelie Durand, AkerBP; Srimantha Chakraborty, Karol Riofrio Rodriguez, Marius Lundegaard, Gianbattista Tosi, Robert Gales, and Richard Michael Holland, Halliburton; Knut Richard Straith and Nils Andre Aarseth, AkerBP; Sami Eyuboglu, Halliburton

Optimizing Petrophysical and Geological Evaluation on Tight Oil Reservoir in a Braided Delta Fault-Nose Structure, Pearl River Mouth Basin, Offshore South China
Bo Liu, Huanling Bian, and Chenglong Wang, Baker Hughes; Lipeng He and Jian Li, CNOOC Shenzhen Ltd.

Petrophysical Characterization of Volcanic in the Presalt Interval: Image Log and NMR Data, Potential Tools for Characterizing Reservoirs With a Focus on CCUS
Gilberto Raitz Junior, Carolina Ribeiro, Michele Arena, Fernando Neves, and Leonardo Borghi, Laboratory of Sedimentary Geology (Lagesed)

Reflection Sonic Imaging Using Slimhole Pipe-Conveyed Sonic Tools
Brian Hornby, Hornby Geophysical Services, LLC; Mark Bacciarelli, Rachel Ospina, and Said Assous, Weatherford International

Weak Reflection Extraction in Borehole Acoustic Reflection Imaging Using an Unsupervised Machining-Learning Method
Qiang Wang, Hua Wang, and Zhilong Fang, University of Electronic Science and Technology of China; Danian Xu, Xiao Qi, and Yang Yu, China Oilfield Services Limited

INTEGRATED OPENHOLE FORMATION EVALUATION

A New Method of Determination Porosity by D-T Neutron Generator and Dual CLYC Detector
Junting Fan, Feng Zhang, and Qixuan Liang, China University of Petroleum (East China); Yuyu Wu, Southwest Oil and Gas Exploration and Development Research Institute

A New Saturation Model for Tight Sandstones Based on Complex Resistivity Spectra
Wei Duan and Peiqiang Zhao, National Key Laboratory of Petroleum Resources and Engineering, China University of Petroleum; Xiangxi Miao, Sinopec Matrix Corporation; Qiran Lv, National Key Laboratory of Petroleum Resources and Engineering, China University of Petroleum

An Automated Approach for Presalt Carbonate Depth-By-Depth Elastic Pore Geometry Characterization at Well-Log Scale
Adna Grazielly Paz de Vasconcelos, Gabriel Gonçalves Cardoso, Danilo Jotta Ariza Ferreira, Luciana Velasco Medani, and Giovanna da Fraga Carneiro, SLB

An Integrative Approach Utilizing Well Logs, Thin Sections, Sidewall Core Samples, and Geochemical Data to Characterize and Evaluate the Reservoir of a Well in the Atapu Field, Santos Basin
Leonardo Ventura, Universidade Federal Fluminense and Observatório Nacional (LabPetrON); Guilherme Oliveira Ramos Dos Santos, Observatório Nacional (LabPetrON); Giovanni Chaves Stael, Observatório Nacional (LabPetrON) and Universidade Federal Fluminense

Applications of a New Multiphysics Inversion Technique: Optimized Petrophysical Evaluation of Advanced Dielectric and Spectroscopy Logs in Unconventional Reservoirs
Andrew C. Johnson, Laurent Mosse, Yevgeny Karpekin, Ulises D. Bustos, Violeta Lujan, and Akinlolu Williams, SLB

Drilling Mud-Filtrate Invasion Modeling for Residual Oil Saturation Estimation
Filipe Ramos de Albuquerque, João Paulo Teixeira da Fonseca, and Gabriel Luiz Pérez Vieira, Petrobras

Enhancing Accuracy and Range of Sourceless Density
Marie-Laure Mauborgne, Rubi Rodriguez, Françoise Allioli, Viktoriya Sergeyeva, R.J. Radtke, Fabien Haranger, Benjamin Rouanet, Alexis Pallain, Idris Babahayou, Erwan Tanguy, David Maggs (Retired), and Christian Stoller (Consultant), SLB

Enhancing the Thomas-Stieber Model With Sonic Log Data for Improved Prediction of Clay Geometries and Total Porosity in Shaly Sands
Tariq Saihood, Michael T. Myers, Lori A. Hathon, and Gabriel Unomah, University of Houston

Estimation of Permeability Combining NMR-Derived Viscosity and Downhole Fluid Mobility: A Case Study From Offshore Mexico
Nicole Stadt, Wintershall Dea; Mohammad Azeem Chohan, Amer Hanif, Alisa Kukharchuk, Steve Smith, Rex Sy, and Maurizio Briones, Baker Hughes

High-Angle Formation Evaluation in Layered Formations Using Dual-Arrival Sonic, Borehole Image, and Geosteering Electromagnetics Measurements
Nicholas Bennett, J. Adam Donald, Mustafa A. Mubarak, and Sherif Ghadiry, SLB; Olusegun Akinyose and Shouxiang (Mark) Ma, Saudi Aramco; Hiroaki Yamamoto and Wael Abdallah, SLB

Implementation of a Laminated Sands Data Acquisition Strategy Delivers Improved Accuracy of Reserves and Rate Forecasting: A Case Study From Trinidad and Tobago
Arden Burrowes, Warren J. Lall, Jason Frederick, Rajiv Bridglal, and Zorie Jones, Heritage Petroleum Company Limited; Alisa Kukharchuk, Amer Hanif, Oluwaseun A. Savage, Mohammad A. Chohan, and Rishi Ramdhanie, Baker Hughes

Integrated Workflow Utilizing LWD GR-Resistivity, Advanced Mudlogging, and Well Dynamic Data Enabled Petrophysical Parameters Modeling to Assist Geosteering in UBCTD
Ibrahim A. Mohd and Faizal N. Enezi, Saudi Aramco; Enrico Zipoli Ferreira, Baker Hughes

Inversion-Based Multiwell Petrophysical Interpretation of Well Logs and Core Data via Adaptive Rock Physics Models
Joaquin Ambia and Carlos Torres-Verdín, The University of Texas at Austin

Novel Method for Estimating Water Saturation in Gas Reservoirs Using Acoustic Log P-Wave and S-Wave Velocities
Sheyore John Omovie, Goshey Energy Services LLC

Perched Water Observations in Deepwater Miocene Fields Using Well Logs, Core, and Production Data
Alexander Kostin and Jorge Sanchez-Ramirez, Woodside Energy

Petrophysical Joint Inversion for the Estimation of Compositional and Storage Properties of Thinly Bedded Reservoirs: A Fully Statistical Approach
Joaquin Ambia, David Gonzalez Isaza, and Carlos Torres-Verdín, The University of Texas at Austin

Physics-Based Probabilistic Permeability Prediction in Thin-Layered Reservoirs: Transport Theory, Dielectric Dispersion Logging, and Core-to-Log Bayesian Statistics
Marco Pirrone, Nicola Bona, and Maria Teresa Galli, Eni S.p.A.

Research and Application of Fracability Evaluation Method for Tight Sandstone Reservoirs Based on Logging and Experimental Data
Yuping Qian, China Oilfield Services Limited; Wenwen Wang, China United Coalbed Methane Co., Ltd.; Huizhuo Xie, China Oilfield Services Limited

Thomas-Stieber Plots Viewed as the Source Data for Staged Effective Medium Models
Michael Myers and Lori Andrea Hathon, University of Houston

Use of A-Priori Information to Improve Automatic Electrofacies Classification: A Case Study in Brazilian Presalt Carbonates
Eduardo Oliveira, Petrobras S.A.

Validating the Need for Quantitative Estimates of the Properties of the Various Shale Components in the Thomas-Stieber Plot
William Horvath, Lori Hathon, and Michael T. Myers, University of Houston

Wireline Cable Dynamics and Wellbore Diagnostics in the Deepwater Logging Environment
Lee Hyson, Mike Hanson, Guy Wheater, Stuart Huyton, Scott Ballou, Xavier Perez, Alfonso Mendez Camarena, Luke Miller, Hamish Munro, and Ron Ford, Gaia Earth Group

NEW TECHNOLOGIES / APPLICATIONS

A Benchmark Well-Logging Database From Brazilian Terrestrial Basins
Rodrigo César Teixeira de Gouvêa and Cleyton de Carvalho Carneiro, University of São Paulo

A Novel Approach to Estimate TOC in Unconventional Reservoirs: The Case of the Pimenteiras Shale, Parnaíba Basin, Brazil
Luis Miguel Rojas, Lilian S. Silveira, Frederico Miranda, and Jose Roberto Correa, ENEVA S.A.

An Automated Workflow to Optimize Parameters for Formation Pressure Measurements Utilizing Memoization
Pontus Loviken, Yon Blanco, and Tianjun Hou, SLB

An Image-Based Artificial Intelligence Approach for the Determination of Analog Petrophysical Rock Properties From Drill Cuttings
Allen W. Britton, Core Laboratories; Shouxiang (Mark) Ma, Saudi Aramco; Katrina Cox, Core Laboratories

Assessing Well Integrity and Water Injection Performance in Selective Completions With Injection Logs and Distributed Temperature Surveys
Cristian Escarraga, SLB; Alejandro Castaneda and Zhully Ortiz, Ecopetrol; Marcia Benavides, Andrea Ordonez, and Diego Garcia, SLB

Automated Identification of LRLC Reservoirs Using Regression Machine Learning in South Sumatra Basin, Indonesia
Aziz Permana, Yan Gustian, Jerry D. Mamesah, Pambudi Suseno, Giyatno, and Djudjuwanto, Pertamina Hulu Rokan; Diah A. Rahmalia, Sudarmaji, and Sarju Winardi, Universitas Gadjah Mada

Core Scanner for Electrical Profiling of Full-Bore Cores at the Wellsite With Advanced Pulse Electromagnetic Technology
Dler Mirza and Kristofer Birkeland, Aker BP; Lars Øy, Roland Chemali, and Benjamin Barrouillet, WELL ID

Deep Insight Into Presalt Carbonates: Advanced AI Multi-Regression Technique for Depth-By-Depth Elastic Pore Geometry
Luciana Velasco Medani, Adna Grazielly Paz de Vasconcelos, Allan Peixoto de Franco, Gabriel Gonçalves Cardoso, Danilo Jotta Ariza Ferreira, and Giovanna da Fraga Carneiro, SLB

Investigating the Impact of Ion Movement Dynamics in the Electrical Double Layer on Dielectric Permittivity Measurements
Zulkuf Azizoglu and Zoya Heidari, The University of Texas at Austin

Lateral Geosteering Using Multidimensional Inversion Helps in Unlocking Reservoir Reserves in Complex Geological Environment
Mauro Viandante, Janine Maalouf, and Valeria Vergani, SLB; Michael Rabinovich, BP America, Inc.; James Davidson, Luke Magarinos, Kelsey Lovell, and Zakaria A. Hassan, BP Exploration Operating Company Limited, UK

Maximizing Look-Ahead Sensitivity to Presalt Reservoir in a Near-Vertical Scenario in the Presence of Intra-Salt Intercalations: A Case Study in Bacalhao Field, Offshore Brazil
Armando Vianna, Enrico Ferreira, Sergey Martakov, and Warren Fernades, Baker Hughes; Katharine Sandler Klein, Equinor

Maximizing Mudlogging Data Value: *Sw* and Porosity Prediction for the Cabeças Formation – Parnaíba Basin, Brazil
Vitoria Flores, Henrique Padoves, Marcia Nunes, Gustavo Pimentel, and Frederico S. De Miranda, ENEVA

Molecular Dynamic Simulation of CO_2 Flooding Into Mineral Nanopores in the Presence of Residual Oil
Isa Silveira de Araujo, Ibrahim Gumma, and Zoya Heidari, The University of Texas at Austin

New Experimental Method for Enhanced and Fast Saturation of Tight Rock Samples
Sabyasachi Dash and Zoya Heidari, The University of Texas at Austin

Pseudo-Borehole Images From Outcrop Photographs: Improving Geological Interpretations
Sofia Alves Fornero, Petrobras and Federal University of Rio Grande do Sul; Candida Menezes de Jesus, Pamella Paiva Fernandes, and Willian Andrighetto Trevizan, Petrobras

Pushing the Envelope of Casing and Cement Inspection: Logging Two Casing Sizes Simultaneously and Setting a Cement Plug in a Single Run
Andrew Hawthorn, Baker Hughes; Tonje Winter, Var Energy; Laurent Delabroy, Aker BP; Nina Girneata, Mats Ingebretson, Iain Leslie, and Roger Steinsiek, Baker Hughes

Quantitative Evaluation for Fluid Components on 2D NMR Spectrum Using Image Boundary Tracking and Modified GMM Clustering Method
Jiawei Zhang, Guangzhi Liao, Lizhi Xiao, and Sihui Luo, China University of Petroleum, Beijing

Simultaneous Correction of Shoulder-Bed and Anisotropy Effects on LWD Propagation Resistivity Logs in HAHZ Wells
Xizhou Yue, Guoyu Li, and Mingxue Ma, China Oilfield Services Ltd; Shanjun Li and John Zhou, Maxwell Dynamics, Inc.

Synergies Between RCAL, SCAL, and DRP to Obtain Faster, Cheaper, and More Accurate Rock Characterizations
Rodrigo Surmas and Marcelo Ramalho Albuquerque, Petrobras

NMR TECHNOLOGY AND APPLICATIONS – PORES AND FLUIDS DISTRIBUTION

A Physics-Informed Deep-Learning Architecture for Transforming NMR T_2 to MICP Pore Throats for Carbonate Rocks
Wei Shao and Songhua Chen, Halliburton; Shouxiang (Mark) Ma, Gabor Hursan, and Abdullah Alakeely, Aramco

Characterizing Thin-Bed Responses in Horizontal Wells Using LWD NMR Tools: Insights From a Water Tank Experiment
David Allen, Zeyad Ramadan, and Ahmed Allam, SLB

Comparison of PCA and Autoencoder Compression for Telemetry of Logging-While-Drilling NMR Measurements
Wolfgang Weinzierl, Oliver Mohnke, Lucas Kirschbaum, Radu Coman, and Holger Thern, Baker Hughes

NMR Characterization Solving Oil-Water Contact Uncertainty: A Presalt Case Study
Moacyr do Nascimento, Jefferson Farrapo, Leonardo Gonçalves, Augusto Rego, and Frederico Schuab, Petrobras

Method for Shortening Echo Interval of Nuclear Magnetic Resonance Downhole Instruments
Wei Liu, Wenxiu Zhang, and Wenxuan Chen, Institute of Geology and Geophysics, Chinese Academy of Sciences; Guangzhi Liao, College of Geophysics, China University of Petroleum-Beijing

NUCLEAR TECHNOLOGY AND APPLICATIONS – MINERALOGY, FLUIDS, AND TRUE POROSITY

A Novel Determining Borehole Fluid Density and Imaging Method Using X-ray Source
Luyu Zhong, Feng Zhang, Yiming Yu, Zhenhua Hu, and Yimula Abulahai, China University of Petroleum (East China)

A Novel Method for Obtaining Formation Water Salinity Utilizing Elemental Spectroscopy Logging Jilin Fan, Wenhui Chen, and Aizhong Yue, China National Logging Corporation; Qiong Zhang, University of Electronic Science and Technology; Feng Zhang, China University of Petroleum (East China)

Advancements in Mudlogging Automation and Identification of Facies Using XRF and Automated Sampling Machine
Carolina Mayorga, Andreina Liborius Parada, Carl Symcox, and Dave Tonner, Diversified Well Logging

Description and Benefits of Drilling Horizontal Exploration and Delineation Wells, Supported by Deployment of New Sensors and Digital Technologies
Jean Michel Denichou, SLB; Torstein Skorve, Artur Kotwicki, and Aasmund Olav Lovestad, Aker BP; Sigurd Nyboe, Mathias Horstmann, Martine Wenang, and Motaz Zeidan, SLB

Enhancing Lithological Evaluation in Complex Triassic Reservoirs: A Comparative Analysis of LWD Spectroscopy and Standard Cuttings Examination
Rubi Rodriguez and Mathias Horstmann, SLB; Yngve Bolstad Johansen and Egil Romsås Fjeldberg, Aker BP; Francoise Allioli, Karim Bondabou, and Andrea Di Daniel, SLB

Experimental Validation of a Sensitivity Functions Sigma Simulator in a Cased-Hole Environment With Calibration Facility and Production Well Data
Geoffrey Varignier, Pïerre Chuilon, Emmanuel Caroli, and Benoit Guivarch, TotalEnergies; Heiko Reinhardt, ANTARES; Valentin Fondement, Thomas Marchais, Cedric Carasco, and Bertrand Perot, CEA; Mai-Linh Doan, University of Grenoble Alpes, University of Savoie Mont Blanc, CNRS, IRD, Univ. Gustave Eiffel, ISTerre; Johann Collot, LPSC-IN2P3

Geochemical Logging to Anticipate CO_2 Reactions: New Reactivity Estimates and CO_2 Storage Simulations
Paul R. Craddock, Jeffrey Miles, and Sangcheol Yoon, Schlumberger-Doll Research; Soham Sheth and Laurent Mosse, SLB

Geochemistry and Saturation Applications Utilizing a New Slim Pulsed-Neutron Technology
John Savage, Weijun Guo, Fransiska Goenawan, Hernan Mora, and Sushovon Roy, Halliburton

The Cased Oil Saturation Determination Method Based on Gamma-Thermal Neutron Response
Guofeng Yang, Wenzheng Peng, Hongfa Ye, Zhengyan Wang, Meng Chen, and Xiangjun Liu, School of Geoscience and Technology, Southwest Petroleum University

The Neutron-Porosity Logging Method Based on D-D Generator With Dual Pulse Mode in Sidetracking Well
Xiaoyang Zhang, Xuelian Chen, Hui Zhang, and Feng Zhang, School of Geoscience, China University of Petroleum (East China); Linhua Guan, Jingli Dong, and Qian Chen, Sinopec Matrix Corporation

Use of Spectral Gamma Ray and Lithogeochemical Logs Combined With XRD Data to Identify Mg-Clay Mineral Sequences in Barra Velha Formation (BVE) – Lower Cretaceous of the Santos Basin
Paulo Roberto Alves Netto, Petrobras, and Manuel Pozo, Universidad Autónoma de Madrid

SPORSE: MULTIPHYSICS/MULTIDISCIPLINARY CORE TO RESERVOIR MODELS: GEOLOGIC FACIES LINKED TO PETROPHYSICAL ROCK TYPES, HETEROGENEITY QUANTIFICATION, AND LARGE PORE PETROPHYSICAL MODELING

A New Method to Compute Formation Density and Pe Values With a Thru-Bit Density Tool
Yang Wang and Qiong Zhang, University of Electronic Science and Technology of China; Qiang Li, Beijing Xinyuan Huayou Tech Co. Ltd

A Novel Multiphysics Interpretation Method for Quantifying Mineral Using a Pulsed-Neutron Element Logging Tool
Yi Ge and Qiong Zhang, University of Electronic Science and Technology of China; Ya Jin, Quanwen Zhang, Decheng Niu, and Lu Yin, China Oilfield Services Limited

Best Practices for Porosity Estimation in Karstified Presalt Carbonate Reservoirs
Candida Menezes de Jesus, Frederico Bastos Schuab, Lucas Abreu Blanes de Oliveira, and Rodrigo Dos Santos Maia Correa, Petrobras

Developing a Novel Petrophysical Rock Typing (PRT) Classification Using Machine Learning Applied in a Supergiant Oil and Gas Field in Southern Iraq
Mohammed A. Abbas, Basra Oil Company

Digital Rock Physics for Geomechanics – Examples and Challenges Ahead
João Paulo Pereira Nunes, Petrobras

Innovative Igneous Rock Presalt Classification Method via TAS Workflow, Well-Log Clustering, and Sidewall Core Analysis
Jeniffer Alves Nobre, Danilo Jotta Ariza Ferreira, Bruno Neves Macedo, and Adna Grazielly Paz de Vasconcelos, SLB

Mechanical Properties of Carbonate-Rich Mudrocks Through the Coupling of Microindentation, Acoustic Microscopy, SEM Imaging and Image Analysis, and Elemental Analysis With Emphasis on the Cement Phases Present
Ajibola Olalekan Samo, Lori Hathon, and Michael Myers, University of Houston

Multi-Technique Characterization of Carbonate Lithotypes and Evaluation of the Impact of Fine Grains on Barra Velha Formation Reservoirs, Sepia Field, Santos Basin
Guilherme Santos, Petrophysics Laboratory of National Observatory (LabPetrON/ON); Gabriel Ribeiro, Advanced Oil Recovery Laboratory (LRAP/UFRJ); Leonardo Ventura Andrade de Souza and Giovanni Stael, Petrophysics Laboratory of National Observatory (LabPetrON/ON)

Static-to-Dynamic Permeability Ratio Provides Valuable Insight of Reservoir Architecture and Heterogeneity in Complex Hydraulically Fractured Reservoirs
German Merletti, Siyavash Motealleh, Peter Armitage, Salim Al Hajri, Khalil Al Rashdi, Martin Wells, and Nigel Clark, BP

SURFACE DATA LOGGING – ROCK AND FLUID ANALYSIS

LiOBIA: Object-Based Cuttings Image Analysis for Automated Lithology Evaluation
Tetsushi Yamada, Simone Di Santo, Karim Bondabou, Laura Su, and Romain Prioul, SLB

MICP-Based Petrophysical Classification of Complex Carbonate Reservoir Rocks
André Luís Fernandes da Silva de Souza and Rodolfo A. Victor, Petrobras; Fábio A. Perosi, Universidade Federal do Rio de Janeiro

Optimize Drilling Decisions Based on Real-Time Detected Alkene and Hydrogen at Surface
Amjad Kharaba and Khalid Qubaisi, Saudi Aramco; Richard Hewitt and Milton Sanclemente, Rawabi Geolog

Reservoir Fluid Properties From Cuttings: An Innovative Synergy of Gel Permeation Chromatography and Data Analytics
Alexandra Cely, Equinor ASA

Using Machine Learning to Improve Rock Mechanical Properties Estimation: Correlating UCS From Scratch Test and Geophysical Loggings
Francisco Henriques Ferreira, Paulo Fernando Villafane Garcia, Anselmo Machado Borba, and Flavia de Oliveira Lima Falcao, Petrobras

LATEST INNOVATIONS IN ULTRADEEP AZIMUTHAL RESISTIVITY FOR 3D APPLICATIONS

A New Short Source Distance Transient Electromagnetic LWD Tool for Geosteering and Formation Evaluation
Xiaozhuang Wang, Jie Gao, and Shizhen Ke, China University of Petroleum-Beijing; Jun Zhu and Zhanshan Xiao, China National Logging Corporation; Wei Su and Yanxin Zhou, China University of Petroleum-Beijing

Adaptive Multidimensional Inversion for Borehole Ultradeep Azimuthal Resistivity
Wardana Saputra and Carlos Torres-Verdín, The University of Texas at Austin; Sofia Davydycheva and Vladimir Druskin, 3D EM Modeling&Inversion JIP; Jörn Zimmerling, University of Uppsala

Enhanced Reservoir Characterization and Horizontal Well Placement With the Use of High-Definition and Three-Dimensional Reservoir-Mapping-While-Drilling Systems in Campos Basin, Offshore Brazil
Antonio Mainieri Vieira da Cunha, Caio Coutinho, Joao Antenor, Abel Hermida, Eduardo Mezzomo, Fabio Pimenta, Munir Koosar, and Elisangela Pessoa, Petrobras; Guillermo Marcelo Cuadros, Ligia Naia de Matos, Charles Silva, and Mauro Viandante, SLB

Enhancing Local Anisotropy Characterization With Ultradeep Azimuthal Resistivity Measurements
Hsu-Hsiang (Mark) Wu, Dagang Wu, Yijing Fan, Jin Ma, Clint Lozinsky, and Michael Bittar, Halliburton

Fast Stochastic Inversion of UDAR Measurements Using Adaptive Multi-Grid Simulated Annealing Guided by Model Parameter Error Estimation
Nazanin Jahani, NORCE Norwegian Research Centre; Wardana Saputra and Carlos Torres-Verdín, The University of Texas at Austin

High-Definition-Mapping UDAR Inversion Provides Accurate Geobody Geometries in a Complex 3D Reservoir
Karol Riofrio, Nigel Clegg, and Hsu-Hsiang (Mark) Wu, Halliburton; Joanna Mouatt and Fanny Dominique Marcy, Aker BP

Mapping Historical Waterflooding and Facilitating Production Strategy With the Use of New Reservoir Mapping-While-Drilling Systems: A Case Study From Offshore Norway
Yazil Abbas, Mauro Viandante, Emmanuel Ebuka Uzuegbu, Ahmed Zarroug El Sedeq, and Jean-Michel Denichou, SLB; Per Erik Wærum, Sven Severin Gundersen, Silje Agnethe Kommedal, Andrea Trollsås Liverød, and Bjørn Matre, Respol Norge AS

Revealing Subsurface Structures in Ultrahigh Definition With UDAR (Ultradeep Azimuthal Resistivity) Measurements – A Case Study From Brazil
Armando Vianna, Enrico Ferreira, and Sergey Martakov, Baker Hughes; Antonio Mainieri, Petrobra

Petrophysics in Latin America Special Issue Call for Papers

Dear Latin American petrophysics enthusiasts,

We have planned a **"Petrophysics in Latin America" Special Issue** for the *Petrophysics* journal in **October 2024** with the help and support of Stephanie Perry (VP Publications for SPWLA) and Elizabeth Naggar (Managing Editor of *Petrophysics* journal).

We are announcing a call for papers on the following topics in petrophysics and formation evaluation technologies focused on the Latin America region:

- History
- Applications in Exploration, Appraisal, and Development
- Interpretation in Conventional and Unconventional Reservoirs
- Petrophysics in Resources and Reserves Evaluation
- Data Analytics and Machine-Learning Applications
- Reviews
- Tutorials
- Public and Private Reference Databases

The following guidelines should help:

1. Previously published conference proceedings and peer-reviewed articles are allowed, either reworked or reprinted, if they are focused on fields and/or reservoirs in the region.
2. Copyright transfer from the journal/other venues must be obtained by the author(s) before submission, except for SPWLA publications, where copyright transfer comes from the author(s).
3. Original material is, of course, allowed, provided approvals for publication are obtained before submission.

Please refer to the SPWLA Instructions for Authors for more information about submission requirements and associated publication fees (https://bit.ly/46Ahlpv).

Articles should be submitted to Editorial Manager (https://bit.ly/3FpOoAI) by **March 15, 2024.**
Make sure to select "Latin America Special Issue" for the "Article Type" when submitting your manuscript.
Also, we encourage you to forward this message to all interested parties.

Best regards,

Javier Miranda **Clara Palencia** **Nelson Suarez**

Guest Editors, *Petrophysics*

Society of Petrophysicists and Well Log Analysts Japan Chapter
(JAPAN FORMATION EVALUATION SOCIETY: JFES)

CALL FOR ABSTRACTS

The 29th Formation Evaluation Symposium of Japan

All persons involved in oil, gas, new energy, geo-engineering industry, and scientific drillings are invited to highlight your innovative technologies and case studies. There will be no poster session.

Date: **12 and 13th September 2024**
Venue: **Japan Organization for Metals and Energy Security - Technology & Research Center (JOGMEC-TRC), Chiba**
1-2-2 Hamada, Mihama-ku, Chiba-city, Chiba 261-0025 Japan
Sponsor: **SPWLA Japan Chapter (Japan Formation Evaluation Society: JFES)**
Cosponsor: **Japan Organization for Metals and Energy Security (JOGMEC)**

ABSTRACT SUBMISSION

- Due date: **5th April 2024,** Japan Standard Time (GMT+09:00)**.**
- Abstract must be submitted online using the following form.
  https://forms.office.com/r/vV7FyiwKaS
- Abstract shall contain 200-400 words in English.
- The extended abstract that you want to publish on OnePetro is required after the committee's review.

General Themes: The symposium committees are soliciting papers in the following topics:

- Reservoir Characterization of Conventional/Unconventional Reservoirs
- Automated Methods of Formation Evaluation
- Specialized Measurement Techniques and Interpretation Methods
- Core and Well-Log Integration
- Case Studies

Special Themes: We set "DX (Digital Transformation)" as special session theme in this symposium, and recent innovation and experience will be shared with the participants in JFES symposium. The invited talks in-person and online will be arranged by the symposium committee inviting the industry leaders from global universities, research institutes and energy companies. In this special session, JFES will provide petrophysicists, geologists, geophysicists, and engineers with an opportunity to share their expertise and case studies for geothermal energy development.

- Machine leaning, AI for Geoscience

DX applications and utilization to

- Formation Evaluation/Reservoir Characterization of the Analysis technology and evaluation
- Geological/Geomechanical Modeling and Dynamic Simulation
- Reservoir Monitoring Technology

Best Student Awards: The outstanding presentation will be given the best student awards. The presentation would be nominated for the International Student Paper Contest in the annual SPWLA symposium.

About JFES :
HP: https://www.spwla-jfes.org/
Contact E-mail: symposium@spwla-jfes.org

Call for Abstracts
SPWLA – Asia Pacific Regional Conference 2024

"Traditional and Transitional Petrophysics"

"Enhancing and Integrating Petrophysics into the challenges of Today and Tomorrow"

Theme of the conference:
Ideas, technology or case studies that are directly applicable to the Asia Pacific region.

Submit your abstract to:
ap2024@spwla.org

Deadline for submission:
29th March 2024.

Presentation Options:

1. Full paper with presentation, abstract in conference brochure, and option to be published in OnePetro .
2. Conference presentation only, with abstract in conference brochure.
3. E-poster presentation, with abstract in conference brochure, and option to be published in OnePetro.

Details:
Maximum of 500 words.
Please provide title, full name of authors and affiliation, name of presenter and contact email address.
Please state if the abstract has been previously published or presented elsewhere.

Conference Schedule *(Notional)*
Sunday 6th – Field Trip (optional)
Monday 7th - Technology Day
Tuesday 8th – Technical Session 1
Wednesday 9th – Technical Session
Thursday 10th – Golf Day (optional)

SOCIETY OF PETROPHYSICISTS AND WELL LOG ANALYSTS

SPWLA THIRD BOARD OF DIRECTORS MEETING
REMOTE
January 5, 2024

President Jennifer Market called the meeting to order at 7:00 am. In attendance, President-Elect, Iulian Hulea, Vice President Education, Kelly Skuce, Vice President Technology-Elect, Harry Xie, Vice President Social Media, Chelsea Newgord, Vice President Technology, Robert "Bob" Gales, Vice President Publications, Stephanie Perry, Regional Director N. America 2, Clara Palencia, and Executive Director, Sharon Johnson.

Absent, Vice President Finance, Secretary, and Admin, Jing Li, Vice President Information Technology, Tom Bradley, Regional Director Europe, Mathias Horstmann, Regional Director Middle East/Africa, Jennifer Duarte, Regional Director N. America 1, Javier Miranda, Regional Director Latin America, Nelson Suarez Arcano, and Regional Director Asia Pacific/Australia, Yuki Maehara

A motion made by President-Elect Iulian Hulea to waive the reading of the minutes from the November BOD meeting was seconded by Vice President Education, Kelly Skuce. This motion passed by majority vote.

A motion made by Vice President Social Media Chelsea Newgord to rename the Board position VP Social Media to VP Communications to be more descriptive of the position and more consistent with the role responsibilities of this position was seconded by Vice President Education, Kelly Skuce. If this motion passes by the Board, it will be taken to the membership for a vote to change the Bylaw and Articles. This motion passed by majority vote.

ACTION ITEM: President Jennifer Market to reach out to Tegwyn Perkins for guidance on where to locate the website link to the chapter maps.

ACTION ITEM: All Regional Directors and Vice President Information Technology Tom Bradley ensure that each chapter representative has access to post their current events on the website calendar.

ACTION ITEM: Vice President Education Kelly Skuce to create a Student Chapter budget proposal form for annual Chapter support, provide a copy to each Chapter President, and place a copy on the website.

ACTION ITEM: Vice President Education Kelly Skuce to publish a list of donations to the Student Chapters in the March 2024 newsletter.

DISCUSSION POINT: Seismic petrophysics joint workshop with SEG to be held in the Middle East.
Shall we participate as a partner or as an affiliate:

- Partner – We will receive 35% of the profit/loss.
- Sponsorship is already in place that covers the administration costs, so the risk of a loss is very low.
- Affiliate – We will have members on the organizing committee but have no share in the profit (and zero risk of loss).

ACTION ITEM: President, Jennifer Market: share documents with the Board – put to a vote

1) sign mou and be full (at risk/profit partner)
2) join only as support (no profit/loss risk)
3) don't join

DISCUSSION POINT: Annual Symposium Site Selection & Administration

- Propose to move from the current method of chapters bidding and being heavily involved in the administration of a conference to the Board selecting a location and the head office then selecting the hotels and administering all levels of the Annual Symposium.
  - Local chapters would be involved, but the bidding process would be removed.
  - All profits to society are to then be shared amongst all member chapters.
  - Symposium committee (consistency)
  - Actions:
    - Jennifer/Iulian/Sharon to formalize a proposal to the Board for approval
    - If approved, organize a meeting with chapter presidents to explain the new process (Iulian/ Jennifer)
    - Contact Southwest/Beijing, Saudi, Midland/Denver ASAP to let them know there is a new process in development (Iulian)

A motion made by President-Elect Iulian Hulea to adjourn the meeting was seconded by Vice President Technology-Elect Harry Xie. 10:22 am.

Respectively Submitted by
Sharon Johnson
Executive Director

NEXT MEETING: Friday, March 1, 2024, 6 am CST.

ABU DHABI CHAPTER

General News

The local Abu Dhabi Chapter members attended an informative event by Mahmoud Saada (technology scientific advisor at the Halliburton Technology Center, Houston). A diverse group of attendees enjoyed the talk and ideas about an AI-prediction workflow application in carbonate reservoirs that uses the wealth of data acquired by pulsed-neutron logging tools in a machine-learning approach. The event extended to very insightful discussions among Abu Dhabi professionals and the presenter in another interactive, technically substantial event.

ACOUSTICS SIG

General News

The Acoustics SIG is partnering to hold a one-day preconference workshop at the 2024 SPWLA Annual Symposium in Rio! The workshop is entitled "Towards the Effective Use of Borehole Acoustics: Understanding, Validating, and Utilizing Sonic Measurements." This course will provide a grounding in the principles of borehole acoustic measurements in both simple and more complex conditions, along with quality control techniques to ensure reliable data are obtained. It also has case studies showing how the results can be used for a variety of applications. This course will cover both wireline and LWD conveyances and explore the different acquisitions, capabilities, and applications of each. The case studies presented will cover both Brazilian and international examples. Attendees can expect to obtain a solid overview of the theory behind wave propagation in a borehole, how the needed measurements are made, processed, quality checked, and interpreted, and then applied to solve a number of real-world problems. This workshop is open to anyone who is interested in an introduction or in expanding their knowledge of the acquisition, quality control, and application of borehole acoustics measurements, with a particular focus on obtaining a better understanding of what really is "fit-for-purpose" data. The instructors will be Brian Hornby (Hornby Geophysical Services, LLC.), Matthew Blyth (SLB), Philip Tracadas (HAL), Tiago de Bittencourt Rossi (Petrobras), and Heitor Darrigo (Shell). Registration and further details can be found on the symposium website. Hope to see you there!

ALGERIA CHAPTER

Recent Events

9 December 2023—Organization of the first online webinar entitled "Decision Making and Risk Analysis Tools for Petroleum Exploration and Production." The speaker was Mr. Gasi Said (head of geology, geophysics, and RE), and the audience was around 15 people.

23 December 2023—Organization of the second online webinar entitled "Production Logging Single Phase." The speaker was Mr. Farid Mekhzoumi (senior log analyst), and the audience was around 23 people.

20 January 2024—Organization of the third online webinar entitled "Production Logging Multi-Phase." The speaker was Mr. Farid Mekhzoumi (senior log analyst), and the audience was around 21 people.

We are also expecting another webinar, which needs to be confirmed by the speaker. All chapter news is on our LinkedIn Page: (https://www.linkedin.com/company/spwla-algeria-chapter)

ALTERNATIVE SUBSURFACE/ENERGY TRANSITION SIG

The purpose of the SPWLA ASET (Alternative Subsurface/ Energy Transition) Special Interest Group is the advancement of the science of petrophysics and formation evaluation in nontraditional and new environments, in particular low-carbon industries such as geothermal energy, carbon capture, utilization, and storage, nuclear waste storage, and non-hydrocarbon extractive industries. The SIG will also provide a forum to conduct technical discussions concerning data acquisition, applications, and interpretation, create awareness of petrophysics and formation evaluation within these industries, and develop/promote industry standards. Membership in the SIG is free – you can sign up at https://www.spwlaworld.org/aset-sig/.

It has been a long time since there has been any news from the ASET SIG. Tom Bradley and I have been busy in one way or another with work, volunteerism, and lecturing. We had two events last year in January and April, but nothing since. We do have a webinar planned for June of this year with Rodney Garrard presenting on insurance rationale for carbon capture and storage. Stay tuned to the SPWLA socials and *SPWLA Today* for more information.

As Tom and I will be in Rio de Janeiro for the annual symposium, I am thinking of having a quick meeting of the ASET SIG, more to meet face to face and discuss plans for the SIG to see what is possible and expand our network and functions. I will keep everyone in the loop as we get closer to the date.

Kelly Skuce – ASET SIG Chair
Tom Bradley – ASET SIG Vice-Chair

BOREHOLE IMAGING-BHI SIG

General News

The BHI SIG currently has 169 members.

Recent Events

In preparation for the annual symposium, members of the BHI SIG board had an online meeting with Bob Gales and the organizing committee of the "Advanced Borehole Image Applications – Reservoir Characterization Beyond Dips" workshop to discuss the final program and how we can support the local organizing committee and the lecturers. It was agreed that Peter Barrett, Chandramani Shrivastava, and Susanna Carrilero would prepare specific sessions for the workshop.

18 January 2024—The BHI SIG board met to discuss the agenda of the upcoming BHI SIG Workshop.

Upcoming Events

We plan to have our next online SIG meeting in April. We plan to have an online workshop focusing on "The Influence of Mud on the Characterization of Fractures Using BHI Tools." We envisage a date around mid-April and will send out further information shortly.

If you would like to present a topic at the next meeting or would like to contribute in any other way, please let us know, and we will try to get back to you soon.

Screenshot from the BHI SIG board meeting on January 19, 2024. (Clockwise from the upper left) Bernd Ruehlicke, Peter Barrett, Christian Rambousek, and Chandramani Shrivastava.

BRAZIL CHAPTER

With the end of the 2022–2023 cycle, the SPWLA Brazil Chapter announces the change of the board for the 2024–2025 biennium.

President: Adna Vasconcelos (SLB)
Vice President: Pedro Lifter (Halliburton)
Financial Director: Lucas Oliveira (Petrobras)
Secretary: David Xavier (Equinor)
Publications: Leonardo Gonçalves (Petrobras)
External Relationships: Pablo Moreira (Geologix Limited)

We would like to thank the previous board and congratulate them for their excellent work! At the same time, we hope the new board succeeds in its mission of disseminating and encouraging knowledge and research in petrophysics and formation evaluation within the Brazilian community.

General News

We are excited to announce that we have launched our website! Visit us now at https://campsite.bio/spwlabrazil. Your feedback is invaluable as we continue to grow and improve.

Membership to our chapter is free and can be claimed by filling out the form available at https://lnkd.in/g4KQjYf.

Our monthly meetings are being held online every third Tuesday of the month, at 4 pm BRT (UTC−03), throughout our YouTube channel (https://www.youtube.com/@spwlabrazil). Please consider subscribing to the channel and turning on notifications to stay updated on our latest videos. Anyone wishing to participate is welcome. Meetings are held in

Portuguese or English, depending on the preference of the speaker. Even if it is held in Portuguese, questions in English are also welcomed!

Please consider subscribing to our LinkedIn page (SPWLA Brazil Chapter: https://www.linkedin.com/company/spwlabrazil/), where we post chapter updates and meeting links.

For further information about the chapter, please contact our secretary, David Xavier (dx@equinor.com).

SPWLA 65th Annual Logging Symposium

SPWLA Brazil is honored to announce that we will host the SPWLA 65th Annual Logging Symposium in Rio de Janeiro. The event will take place in May 2024 and celebrates 10 years of official existence of the Brazil Chapter. The organizing committee is working behind the scenes to ensure a high-quality event, so stay tuned to our LinkedIn page for new information.

SPWLA Brazil would like to thank the SPWLA board and the entire petrophysics and formation evaluation community for their trust in us to hold the second SPWLA Symposium in Latin America. Brazil will certainly have the best event ever!

Recent Events

20 February 2024—We had Lígia Naia de Matos (https://www.linkedin.com/in/ligia-matos-7887483b/), senior well placement engineer at SLB. The webinar is available on our YouTube channel (https://www.youtube.com/@spwlabrazil).

Upcoming Events

19 March 2024—We expect to host Marcos Jacinto (https://www.linkedin.com/in/marcos-jacinto/), data geoscientist at Geowellex.

The SPWLA Brazil Chapter is still confirming the 2024 presentation calendar, so stay tuned to our LinkedIn and YouTube pages to stay up to date with our schedule.

DUBAI CHAPTER

General News

The current SPWLA Dubai activity is preparation and planning for the SPWLA Symposium 2025 in Dubai. The SPWLA Dubai conducted a Geomechanics Technical Session presentation (online) in 2023 with Dr. Gaisoni as the speaker and Dr. Muhammad A. Gibrata as the moderator.

Upcoming Events

7 March 2024—Award ceremony from Dubai Government to SPWLA Dubai.

April 2024—Plan for a technical presentation on a petrophysical and EOR study.

FEDERAL UNIVERSITY OF RIO DE JANIERO (UFRJ) STUDENT CHAPTER

General News

Our chapter maintains normal activities, now with 14 active members organized below:

Board Members
- President: Vittor Cambria
- Vice President: Renan Camillo
- Treasurer: Sofia D'Orsi
- Secretary: Diana Tabach
- Professor Advisor: Jorge Picanço

Executive Members
- Rodrigo Azambuja
- Iago da Costa
- Sarah Aleixo

Marketing Members
- Gabriel Ferraz
- Luís Henrique Trianon
- Marina Alfradique

Logistic Members
- Alexandre Nobre
- Guilherme Lontra
- Enzo Borges

Recent News

The actual team management of the chapter changed. Now, Vittor Cambria is the President, and Renan Camillo is the Vice President. Gabriel Ferraz and Guilherme Lontra are going to move to the Marketing and Logistic sectors to still help the chapter with the new activities.

We are supporting the SPWLA Brazil Chapter by organizing and receiving the abstracts for the International Student Paper Contest that will occur at the SPWLA International Symposium. We are going to select three papers to compete in the event.

Disclosure post for the submission of papers for the ISPC.

Upcoming Events

Our chapter is going to resume activities at the beginning of the classes at the university (March 18). We are organizing, in partnership with other chapters and the secretary of the course, a week of presentations about the geology course for the new students who are coming this year. After that week, we are going to open our selection process to make our team grow even more.

We are in contact with Lígia Matos to give us a webinar about "Horizontal Wells Optimization Through UDAR Advanced Reservoir Mapping and Geosteering." She graduated in physics with a master's degree in geophysics from UFBA and is currently a senior G&RM engineer at SLB.

FORMATION TESTING (FT) SIG

Recent Events

The FT SIG Webinar series for 2023–2024 continued on December 7, 2023, with presentations from Vinay Mishra (Halliburton) on formation testing in balanced conditions with complex reservoir fluids and Tim Salter (Baker Hughes) on the benefits of integrating reservoir pressure test analysis with geological and petrophysical analysis.

Upcoming Events

The Webinar series continued in late February with one upcoming in April 2024. These webinars are a great way to see excellent examples and applications of formation testing from around the world.

Elections – the FT SIG Executive Committee will be holding elections for the positions of Chair, Vice Chair, Secretary, and Treasurer. Please contact us at formation.testing.sig@spwla.org for more information.

FT SIG Annual Meeting and Technical Conference – Our annual meeting with technical presentations will be held in Houston in September 2024. Planning is still underway; we will send more information and updates as they become available.

HOUSTON CHAPTER

General News

The SPWLA Houston Chapter has been actively enhancing the local petrophysical community through various engaging initiatives. The Houston Chapter hosted seminars across Houston, offering a platform for experts and professionals to share insights and advancements. These seminars have been complemented by monthly networking events, drawing participants from various sectors, including academia and industry, to establish a robust exchange of ideas and experiences.

The Houston Chapter hosted the SPWLA 2023 Technology show on December 8, attracting over 120 participants. The positive feedback received stands as a testament to the event's impact and its role as a key gathering point in the industry. The Houston Chapter looks forward to continuing these successful initiatives and events, fostering growth and collaboration in the petrophysical community.

Recently, the Houston Chapter also worked with local SPWLA student chapters from The University of Texas at Austin and the University of Houston. Help with the local chapter activities provides support for the different student chapters in many ways, both financially and technically.

The events hosted by the Houston Chapter in the past two months include:

A seminar was held on SPWLA Houston Chapter Westside on January 31. Olabode (Bode) Ijasan made a presentation. The seminar was titled "Learnings From Impact and Implications of Signal-to-Noise in NMR T_1-T_2 Logging of Unconventional Reservoirs."

To provide more networking opportunities, the SPWLA Houston Chapter continuously hosts networking events on the last Thursday of each month, from 5:07 pm to 8:08 pm, at the same location for easy recall. In the last 3 months, we gathered on December 19, January 25, and February 29. These events brought together a diverse group of professionals from the SPWLA community, including petrophysicists, geologists, geophysicists, engineers, managers, and even current and former SPWLA international board members.

We invite you to join us at our monthly networking events on the last Thursday of each month. The next networking event will be on Thursday, March 28. We look forward to welcoming you there for another evening of valuable connections and knowledge sharing!

The SPWLA Houston Chapter continues to host lunch seminars on various topics, with more in-person events taking place recently.

Slots are limited for in-person seminars; please visit spwla-houston.org for details and registration.

To receive notifications of upcoming events and chapter news, register on the new SPWLA Houston Chapter website and follow us on LinkedIn. You'll also find sponsorship opportunities and job postings. If you're interested or would like more information, please contact us. We are always open to new speakers for our seminars and welcome guests to present on topics of interest to the petrophysics audience. Contact our VPs if you have a presentation to share.

We are committed to fostering a thriving community and offering events that cater to both your professional growth and your social connections. Stay tuned as we continue to explore new avenues for learning, networking, and collaboration.

Stay tuned for upcoming news and events! As always, feel free to contact any of the board members if you have questions or comments using the contact information provided on our website: https://spwla-houston.org/. Please follow our LinkedIn account as "Houston Chapter of SPWLA" for the latest updates.

Recent Events

31 January 2024—A seminar was held in SPWLA Houston Chapter Westside. Olabode (Bode) Ijasan made a presentation. The seminar was titled "Learnings From Impact and Implications of Signal-to-Noise in NMR T_1-T_2 Logging of Unconventional Reservoirs."

19 December 2023, 25 January and 29 February 2024— We hosted three in-person social networking events. The whole SPWLA community was invited. It was an outdoor party attended by petrophysicists, geologists, geophysicists, engineers, managers, etc. We have current and past SPWLA international board members joining our events. We plan to have such a networking event every last Thursday monthly from 5:07 to 8:08 pm at the same location to make it easier to remember. Hope to see you there!

Upcoming Events

Lunch Seminar Westside: Thursday, March 7, 2024, 11:30 am–1:00 pm
"Salinity Effect on CO^2 Solubility in Live Formation Water Under Reservoir Conditions"
Speaker: Jie Wang
Please register by March 5, 2024 to reserve lunch for those attending in person.
Registration Link: https://spwla-houston.org/seminar-detail.php?id=71

Lunch Seminar Northside: Wednesday, March 13, 2024, 11:30 am–1:00 pm
"Critical Considerations for Wireline Logging Data Assurance and Deployment Risk Management"
Speaker: Homero C. Castillo
Please register by March 11, 2024 to reserve lunch for those attending in person.
Registration Link: https://www.spwla-houston.org/seminar-detail.php?id=70

Networking Happy Hour
Thursday, March 28, 2024, 5:07–8:08 pm
Where: Cedar Creek Bar & Grill
1034 W. 20th St, Houston, Texas, US, 77008

The entire SPWLA community is invited; no need to RSVP. Come at your own leisure; no payment is required. Come and mingle with fellow petrophysics enthusiasts. Our social events are well attended by petrophysicists, geologists, geophysicists, engineers, and managers. We also expect to have current and past SPWLA international board members and recognized names in our industry! The Houston Chapter will host the networking event **every month at the same time and location**. Hope to see you all.

More details are available on the Houston Chapter's website: https://www.spwla-houston.org/
and the Houston Chapter LinkedIn profile: https://www.linkedin.com/company/houston-chapter-of-spwla/
Stay tuned!

Bode Ijasan made a presentation about “Learnings From Impact and Implications of Signal-to-Noise in NMR T_1-T_2 Logging of Unconventional Reservoirs.” SPWLA Houston Chapter VP Westside Neal Cameron greeted the speaker.

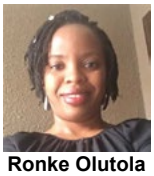
The success of a fantastic networking event hosted by the SPWLA Houston Chapter on December 19.

Bernd Ruehlicke, the President of the Houston Chapter of SPWLA, SPWLA Houston Chapter VP Northside Amer Hanif, and North America Reginal Director Javier Miranda warmly greeted the guests during the networking event on Jan 25.

Great discussion after Bode’s presentation.

We warmly invite the entire SPWLA community to join us at our monthly networking events, which take place on the last Thursday of each month. The Houston Chapter hosts networking events **every month at the same time and location**. Don’t miss this opportunity to connect with others in the SPWLA community. We look forward to seeing you there!

SPWLA Houston Chapter Board for 2022–2024

 **Bernd Ruehlicke** **PRESIDENT** president@spwla-houston.org	 Amer Hanif **VICE-PRESIDENT NORTH SIDE** vpnorthside@spwla-houston.org
 **Artur Posenato Garcia** **VICE-PRESIDENT DOWNTOWN** vpdowntown@spwla-houston.org	 **Neal Cameron** **VICE-PRESIDENT WESTSIDE** vpwestside@spwla-houston.org
 **Ronke Olutola** **TREASURER** treasurer@spwla-houston.org	 **Hans Wong** **SECRETARY** secretary@spwla-houston.org
 **QinShan (Shan) Yang** **EDITOR** editor@spwla-houston.org	 **Tianmin Jiang** **WEBMASTER** webmaster@spwla-houston.org

HYDROCARBON RESERVES SIG

General News

On February 6, the SIG held a committee meeting between the board members to discuss plans for the SIG over 2024 and beyond.

The SIG has been requested to comment on the existing 2018 PRMS document and is soliciting comments from SIG members in readiness for an updated version of the PRMS.

Upcoming Events

The SPWLA Hydrocarbon Resources SIG is in the process of organizing the first group meeting of 2024 and tentatively plans to have this as an in-person event in March. The SIG will share further information as we firm up the speaker(s), venue, and date. We also plan to continue the "Porosity Chat Series" after the success of these meetings during 2023.

Keep an eye on the SIG's webpage, the SPWLA website under the Chapters/SIGS section, where you can find further information on the SIG, its vision, mission, past and upcoming events, and contact information.

Finally, we solicit new members to join the SIG given the importance of resources and reserves estimation in our industry.

SIG contact email: reserves_sig@spwla.org

JAPAN CHAPTER

Upcoming Events

13 March 2024—123rd JFES Chapter Meeting: We are pleased to announce the forthcoming 123rd JFES Chapter Meeting. We are also planning a networking event followed by the presentation.

Presentation #1/ English

Title: "Analysis of Sandbox Experiments on Strike Slip Faulting-Implication for Fault/Fractures Systems in the North of Rang Dong Field, Cuu Long Basin, Offshore Vietnam"
Presenter: Dr. Nguyen Binh Thi Thanh (JX Nippon Oil and Gas Exploration)

Presentation #2/ Japanese

Title: "Time-Lapse Seismic Analysis Using ACROSS Source and DAS at the Aquistore CO_2 Storage Site"
Presenter: Yuta Kitawaki (JX Nippon Oil and Gas Exploration)

12–13 September 2024—Call for Abstracts for the 29th Formation Evaluation Symposium of Japan: All persons involved in oil, gas, new energy, geoengineering industry, and scientific drillings are invited to showcase their case studies, new technologies, and innovations. We are also celebrating our 30th anniversary since the establishment of JFES in 1993. There will be no poster session, so abstract submission is for consideration as an oral presentation only. Each presentation would be a total of 20 to 25 minutes, including one oral presentation and live Q&A.

Date: 12 and 13 September 2024
Venue: Japan Organization for Metals and Energy Security – Technology & Research Center (JOGMEC-TRC), Chiba, 1-2-2 Hamada, Mihama-ku, Chiba-city, Chiba 261-0025 Japan
Sponsor: SPWLA Japan Chapter (Japan Formation Evaluation Society: JFES)
Co-Sponsor: Japan Organization for Metals and Energy Security (JOGMEC)

ABSTRACT SUBMISSION

Due date: 5 April 2024, Japan Standard Time (GMT+09:00).
Abstracts must be submitted online using the following form: https://forms.office.com/r/vV7FyiwKaS
The abstract shall contain 200 to 400 words in English.
The extended abstract that you want to publish on OnePetro is required after the committee's review.

General Themes: The symposium committees are soliciting papers on the following topics:
Reservoir Characterization of Conventional/Unconventional Reservoirs
Automated Methods of Formation Evaluation
Specialized Measurement Techniques and Interpretation Methods
Core and Well-Log Integration
Case Studies

Special Themes: We set "DX (Digital Transformation)" as a special session theme in this symposium, and recent innovations and experiences will be shared with the participants in the JFES symposium. The invited talks, both in person and online, will be arranged by the symposium committee, which will invite industry leaders from global universities, research institutes, and energy companies. In this special session, JFES will provide petrophysicists, geologists, geophysicists, and engineers with an opportunity to share their expertise and case studies for geothermal energy development.

Machine Learning, AI for Geoscience
DX Applications and Utilization to:
Formation Evaluation/Reservoir Characterization of the Analysis Technology and Evaluation
Geological/Geomechanical Modeling and Dynamic Simulation
Reservoir Monitoring Technology

Best Student Awards: The outstanding presentation will be given the best student awards. The presentation will be nominated for the International Student Paper Contest in the annual SPWLA symposium.

About JFES:
HP: https://www.spwla-jfes.org/
Contact email: symposium@spwla-jfes.org

KING ABDULLAH UNIVERSITY OF SCIENCE AND TECHNOLOGY (KAUST) STUDENT CHAPTER

Recent Events

5 December 2023—The SPWLA and ARMA KAUST Student Chapters hosted Prof. Tadeusz Patzek as a special presenter in their industry-focused seminar series. Professor Patzek's presentation, "Industrial and Academic Research Need Each Other to Survive," was thought-provoking and was followed by insightful questions from the audience. This discussion session was the second in a series of educational seminars proudly organized by the KAUST Society of Petrophysicists and Well Log Analysts (SPWLA Student Chapter, in collaboration with the American Rock Mechanics Association (ARMA) KAUST Student Chapters. Stay tuned for future events.

(From right to left) Mohammad Taufik (Treasurer, SPWLA KAUST), Samuel Fontalvo (President, SPWLA KAUST), Prof. Tadeusz Patzek (seminar speaker), Prof. Bicheng Yan, and Maria Camila Sierra (President, ARMA KAUST), King Abdullah University of Science and Technology, Kingdom of Saudi Arabia.

NORWEGIAN FORMATION EVALUATION SOCIETY (NFES) CHAPTER

General News

The Norwegian Formation Evaluation Society (NFES, the Norwegian Chapter of SPWLA) continues the good work of providing its members with good and high-quality technical talks. The first two talks in 2024 have received a strong interest among our members.

Month	Title	Presenter
jan.23	Looking through pipes, how do we use CT scans in the Oil and Gas industry?	Olivier Lopez
feb.23	Holistic Evaluation of Reservoir Oil Viscosity in Breidablikk Field – Including Mud Gas Logging Approach	Alexandra Cely

Affiliation	Attendance (incl speaker) at the Gård	Attendance (incl speaker) via Teams	Attendance (incl speaker) Total
Leading researcher at Equinor	27	3	30
Principal reservoir engineer, Equinor	22	1	23

NFES 2024 Sponsors: Hydrophilic has joined, and Rogii has renewed the sponsorship.

10 January 2024—We hosted a very interesting talk given by Olivier Lopez (Equinor) with the following title: "Looking Through Pipes, How Do We Use CT Scans in the Oil and Gas Industry?"

NFES Technical meeting, January 10th, 2024, in Stavanger. Subhadeep Sekar, NFES VP Member, presents the NFES ice bear in gratitude for a well-attended and delivered presentation by Olivier Lopez (to the right).

7 February 2024—We hosted a very interesting talk given by Alexandra Cely (Equinor) with the following title: "Holistic Evaluation of Reservoir Oil Viscosity in Breidablikk Field – Including Mud Gas Logging."

NFES Technical meeting, February 7, 2024, in Stavanger. Dler Mirza, NFES President, presents the NFES ice bear in gratitude for a well-attended and delivered presentation by Alexandra Cely (to the right).

OKLAHOMA CITY CHAPTER

Recent Events

16 January 2024—Olbode Ijasan (Exxon) – "Learnings From Impact and Implications of Signal-to-Noise in NMR T_1-T_2 Logging of Unconventional Reservoirs."

20 February 2024—Artur Posenato Garcia (Chevron) – "A New Workflow for Assessment of Fluid Components and Pore Volumes From 2D NMR Measurements in Formations With Complex Mineralogy and Pore Structure."

Upcoming Events

27–29 March 2024—SEG/SPE/SPWLA Workshop: "From Measurement to Theory: Adventures in Rock Physics, Petrophysics, and Engineering," University of Oklahoma, Norman, OK.

PDDA SIG

Machine-Learning Workshop at the 2024 SPWLA Symposium in Rio de Janeiro

Don't miss out on the ultimate machine-learning workshop at the SPWLA Annual Symposium in Rio de Janeiro! Are you ready to dive into the cutting-edge world of machine learning? Join us at the SPWLA Annual Symposium in Rio de Janeiro for an exclusive workshop designed to elevate your skills and knowledge in this transformative field. Led by three distinguished instructors, this workshop promises to be an unparalleled opportunity to unlock the full potential of machine learning in the oil and gas industry.

Meet Our Expert Instructors

1. Kjetil Westeng – "How to Make ML Models and Comparison of Different ML Methodologies: What Will Work and What Will Not"

Kjetil Westeng is a lead petrophysicist (AkerBP) working on the digitalization in petrophysics, innovating conventional interpretation technology and automated solutions. He has more than 20 years of experience specializing in many fields of formation evaluation and petrophysics, including thin-bed analysis, rock physics, fluid analysis, lithology interpretation, and integrated petrophysics. His strength lies in blending multidisciplinary workflows involving other disciplines like geophysics, geochemistry, data science, and rock mechanics. His proficiency in Python has fueled contributions to data science, particularly in machine learning and automation. Currently, he is spearheading development and research

projects that intersect various geosciences and is dedicated to nurturing growth in others through mentoring and teaching. He is also serving on the Bru-21 (NTNU) steering committee, shaping the future of the field.

2. Saad Omar – Topic TBD:

Saad Omar received the BSEE degree (with highest distinction) from the University of Engineering and Technology, Lahore, Pakistan, in 2009 and a PhD degree from Purdue University, West Lafayette, IN, USA, in 2014. Since 2014, he has been affiliated with Schlumberger-Doll Research, Cambridge, MA, USA. His current research interests include computational and applied electromagnetics, direct integral equation solvers, inverse scattering problems, fast and high-capacity numerical methods, high-performance VLSI CAD tools, high-frequency VLSI circuit design and analysis, microwave and millimeter-wave circuits, and bioelectromagnetics. Dr. Omar was the recipient of the IEEE Antennas and Propagation Society Doctoral Research Award for 2013–2014. He was also the recipient of Pakistan's most prestigious Presidential Award, 15 Gold Medals, and the National Talent Scholarship for his record-breaking academic performances both in pre-engineering and engineering schools. He is an active member of the IEEE Microwave Theory and Techniques Society, IEEE Antennas and Propagation Society, and Golden Key International Honour Society.

3. Marcos Jacinto – "Training a Model Is Not All You Need: The Life Cycle of ML Models"

Marcos Jacinto is a data geoscientist and machine-learning engineer (Geowellex). He specializes in developing, managing, and monitoring machine-learning (ML) applications tailored for reservoir characterization, fluid analysis, and drilling optimization used in real time while drilling. In addition to his role at Geowellex, Marcos represents the software Interactive Petrophysics (IP) from Geoactive in Brazil. In this capacity, he provides support and technical training to various companies and universities. His academic background includes an MSc degree in geodynamics and geophysics and a Bsc degree in geology, complemented by an MBA focusing on cloud engineering and architecture. Marcos has authored several technical papers for conferences, such as EAGE and ADIPEC. These works, presented at conferences globally, delve into a range of subjects, including Machine Learning, MLOps, and Explainable AI.

Workshop Details

- Date: May 18 (Sat) or May 19 (Sun) – TBD
- Time: 8:00 am to 4:20 pm
- Location: Sheraton Grand Rio Hotel & Resort
-Registration: https://www.spwlaworld.org/welcome-to-the-65th-annual-symposium/

Don't miss this incredible opportunity to learn from industry-leading experts and take your machine-learning skills to new heights. Whether you're a seasoned professional or just beginning your journey in machine learning, this workshop is sure to inspire and empower you. Join us at the SPWLA Annual Symposium in Rio de Janeiro and unlock the future of oil and gas exploration with machine learning. See you there!

Sponsorship Opportunities

Multiple interesting sponsorship opportunities are announced there. Contact our board if you have an interesting data set or a presentation you would like to share or become a sponsor for the PDDA SIG or annual machine-learning competition.

Please stay tuned and check it out for upcoming news! As always, feel free to contact any of the board members if you have any questions or comments using our contacts included below.

More details are available on the PDDA SIG website:
https://www.spwla.org/SPWLA/Chapters_SIGs/SIGs/PDDA/PDDA.aspx
and the PDDA SIG LinkedIn profile:
https://www.linkedin.com/groups/13605420

Stay tuned always!

PERMIAN BASIN CHAPTER

General News

Our last technical talk was on January 23 with David Allen (SLB), who presented on "Customized Thin-Bed Analysis Workflow Applied to Low-Resistivity Pay in Permian Clastics."

New Chapter Officer:
Kate La Fleur of NuTech,
Social Media Communications
Christopher Smith of Advanced Hydrocarbon Stratigraphy, **Vice President**
Sebastian Ramiro-Ramirez of Diamondback Energy, **Treasurer**
Veronica Montoya of Axiom Petrophysics LLC, **President**
Jennifer Reeves of Applied Petroleum Technology (APT), **Secretary**

Recent Events

Date	Speaker	Title
January 23, 2024	David Allen	SLB: Customized Thin-Bed Analysis Workflow Applied to Low-Resistivity Pay in Permian Clastics

Upcoming Events

Upcoming Monthly Meeting of 2023:

Date	Speakers	Title
February 27, 2024	Kelsey Call and Dylan Wiemer	Diamondback Flow or No Flow: How Geological Influences Effect Wellbore Designs in Over-Pressured Injection Intervals.
March 26, 2024	Milly Wright	RhomTek:

SAUDI ARABIA CHAPTER

Recent Events

23 January 2024—The SPWLA Saudi Chapter recently hosted its inaugural lunch meeting for the year, featuring a presentation on "Characterizing the State of Stress From Wellbore Measurements" by Jean Desroches (geomechanics scientific advisor at Rocks Expert). His talk focused on measuring the magnitude of the minimum principal stress using the Micro Hydraulic Fracturing (MHF) technique, implemented through wireline formation testing, an important application of formation testing in geomechanics modeling of oil and gas reservoirs, as well as other projects related to energy transitions such as geothermal energy development and subsurface storages of CO_2, natural gas, and H_2. The presentation garnered active participation and Q/As from the audience.

SPWLA SAC – Lunch & Learn on 23 January 2024, Jean Desroches (Rocks Expert).

Upcoming Events

30 April–1 May 2024—Look out for SPWLA SAC's upcoming 14th Workshop on Geothermal Energy Exploration, Evaluation, and Development in Dhahran, Saudi Arabia.

UH STUDENT CHAPTER

General News

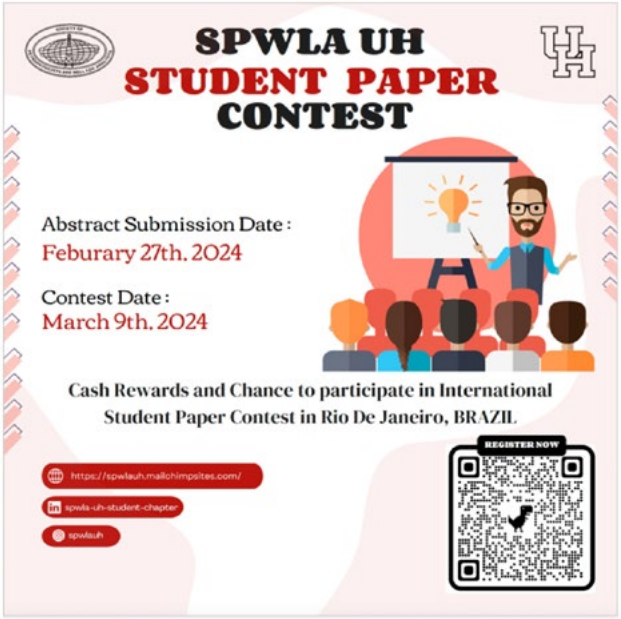
Planning Meeting: The board of directors met to plan events and discuss action items. In addition to the Student Paper Contest, we will be hosting multiple events this spring and provide at least one opportunity for the students to visit oil and gas companies and learn about the industry.

Recent Events

12–20 February 2024—Food Drive: To help fight hunger in the community, we conducted a Food Drive with the Houston Foodbank.

Upcoming Events

7 March 2024—Student Paper Contest: The chapter will host the Student Paper Contest to provide an opportunity for undergraduate and graduate students to showcase their research.



UNIVERSITY OF SANTANDER (UIS) STUDENT CHAPTER

Board of Directors

President: Karen Julieth Rojas O.
Email: presidencia@spwlauis.com

Vice President: Julian David Anaya F.
Email: vicepresidencia.spwlauis@gmail.com

Fiscal: Stefany Gabriela Peñaranda G.
Email: fiscal.spwlauis@gmail.com

Secretary: Anngy Daniela Román O.
Email: secretaria.spwlauis@gmail.com

Treasurer: Lizeth Vanessa Blanco D.
Email: contador.spwlauis@gmail.com

Recent Events

17 February 2024—Integration Day: We will carry out an integration outing to the CATAY facilities with the members of the SPWLA UIS Student Chapter. There, we will carry out different activities to develop and strengthen skills such as leadership and teamwork so that it allows us to unite more as a team.

23 February 2024—Colombia Student Paper Contest 2024: We will hold the annual paper competition at the student level, where undergraduate and graduate students from the School of Petroleum Engineering and the School of Geology of the Industrial University of Santander will be able to participate. All contestants must send their papers to compete and then make a presentation on their research topic in English. In the end, three winners will be selected who will occupy first, second, and third place, according to the qualifications given by the juries.

March 2024—Visit to the UIS Laboratories in Guatiguará: In the month of March, the members of the SPWLA UIS Student Chapter will visit the facilities of the Industrial University of Santander, to the Guatiguará headquarters, where the petrophysical analysis and petroleum geochemistry laboratories are located. The Guatiguará headquarters has the equipment to perform X-ray diffraction, nuclear magnetic resonance, spectroscopy, and a tomograph. There is also the possibility of visiting the National Lithotheque of the Colombian Geological Service, which is also located at the Guatiguará headquarters of the UIS.

March 2024—SPWLA TALKS: Talks promoting petrophysics will be held with the help of professionals specialized in the subject. The event will take place in person at the facilities of the Industrial University of Santander. The objective of the SPWLA TALKS is to disseminate petrophysics and new technologies, such as CCUS, to students in the School of Petroleum Engineering.

March 2024—Field Trip: A technical outing to the Cira Infantas Field is planned with the collaboration of Ecopetrol (Colombian oil, gas, and energy company), with the aim of familiarizing the students of the School of Petroleum Engineering with the tools and processes that are used. Come learn more about the hydrocarbon industry.

SPWLA UIS/ Social Networks
LinkedIn:
https://www.linkedin.com/company/spwla-uis-student-chapter/
Instagram:
https://www.instagram.com/spwlauis/?hl=es-la
YouTube:
https://www.youtube.com/c/SPWLAUIS
Facebook:
https://es-la.facebook.com/SPWLAUIS/

SPWLA 2024 NMR SIG Conference

Date: 23 May 2024

Location: Baker Hughes Rio Energy Technology Innovation Center (RETIC)

Rio de Janeiro

Chair: Radu Coman (Baker Hughes) Co-chair: Willian Trevizan (Petrobras)

Committee Members:

Abraham Simanjuntak (JX Nippon)
Artur Posenato Garcia (Chevron)
Jesus P. Salazar (Baker Hughes)
Katharine Sandler Klein (Equinor)
Kristopher Farmer (Core Laboratories)
Nate Bachman (SLB)
Philip Singer (Rice University)
Ricardo Alevato (ExxonMobil)
Ron Balliet (Haliburton)
Ron Bonnie (ConocoPhillips)
Stacey Althaus (Aramco)
Tianmin Jiang (ConocoPhillips)

Sponsors:

Two levels of sponsorship are available:

Platinum Sponsor: $750

1. Two complimentary registrations for attendees from the sponsoring organization.
2. Verbal and visual acknowledgement of the sponsors at the start and end of the conference.
3. The sponsors will be mentioned in LinkedIn posts related to this NMR SIG conference.

Gold Sponsor: $500

1. One complimentary registration for an attendee from the sponsoring organization.
2. Verbal and visual acknowledgement of the sponsors at the start and end of the conference.
3. The sponsors will be mentioned in LinkedIn posts related to this NMR SIG conference.

If your organization is interested, please contact NMR@spwla.org

Preliminary Agenda

The conference starts at 8:00 am with badge collection, light refreshments, and networking. The presentations start at 9:00 am and end at 5:30 pm. In between, there will be a lunch break and several coffee breaks. After the closing remarks, light refreshments will be provided. At 6:30 pm, a bus will take the participants back to the Sheraton Hotel.

Technical Presentations

Selected titles listed below are in alphabetical order and will not be the order in which they will be presented. The final technical program may differ from that shown due to withdrawals. Photography and video/audio recording of any kind are strictly prohibited.

A Comparison Between Different NMR Acquisition Modes to Evaluate a Heavy Oil Reservoir in Brazil; Willian A. Trevizan, Bernardo Coutinho C. dos Santos, Paulo Netto (Petrobras), Jesus P. Salazar, Javier Borri (Baker Hughes)

An Innovative Approach for Real-Time NMR Permeability Calibration Utilizing Azimuthally Oriented Formation Testing While Drilling; Mohamed Fouda, Ahmed Taher (Halliburton)

Application of NMR LWD Lateral Motion Corrections in Petrobras; Willian A. Trevizan, Bernardo Coutinho C. dos Santos, Moacy S. N. Neto (Petrobras), Tito J. Bonagamba, Arthur G. A. Ferreira, Agide Marassi (University of São Paulo), Everton L. Oliveira (CNPEM)

Behavior of T2 Cutoffs in Pre-salt and the Challenge of Core-Log Integration; Willian A. Trevizan, Bernardo Coutinho C. dos Santos, Thais F. Matos, Marcelo F. Rezende, Leonardo A. F. Bonzanini (Petrobras)

Combining NMR T2 Distributions With Micro-CT Images to Create More Accurate Pore Size Distributions; Silvia Bermudez, Gabriel Ribeiro, Maira Lima, Austin Boyd, Andres Zuniga, Paulo Couto (UFRJ)

Expanding the Use of Nuclear Magnetic Resonance (NMR) and Machine Learning for Reservoir Characterization of an Offshore Gas Field – Rock Typing and Capillary Pressure Profiling; Abraham J. S. Simanjuntak, Johnny Y. C. Jin (JX Nippon)

Improved 2D NMR Maps for Fluid Typing in a Conventional Exploration Gas Reservoir in the Eastern Mediterranean Sea; Jorge G. Iglesias, Andrew C. Johnson, Laurent Mosse (SLB), Boquin Sun, Jide Aina (Chevron)

Integration of 23MHZ NMR T1-T2 Mapping Enhanced Crushed Rock Analysis Datasets in Unconventional Reservoirs; Kristopher Farmer, Omar Reffell (Core Laboratories)

Irreducible Water Saturation Determination From Nuclear Magnetic Resonance Raw Data Using Deep Learning; Bernardo Coutinho C. dos Santos (Petrobras), Bernardo Fraga, Clésio Bom (CBPF - Centro Brasileiro de Pesquisas Físicas)

Nearly Lossless Transmitting NMR Signals to Surface in Real-Time While Drilling; Songhua Chen, Wei Shao (Halliburton)

New NMR Porosity Correction Algorithm for Steady-State Buildup Effect in Unconventional Reservoirs; George A. Bordakov, S. Utsuzawa, D.F. Allen, Y. Karpekin, D. Rose, W. Troyer, R. J. Laronga, and H. N. Bachman (SLB)

NMR LWD – A Success Story; Holger Thern (Baker Hughes)

Oil Viscosity Determination From NMR: A Comparison Between Logging While Drilling and Wireline Estimation; Jesus P. Salazar, Javier Borri (Baker Hughes)

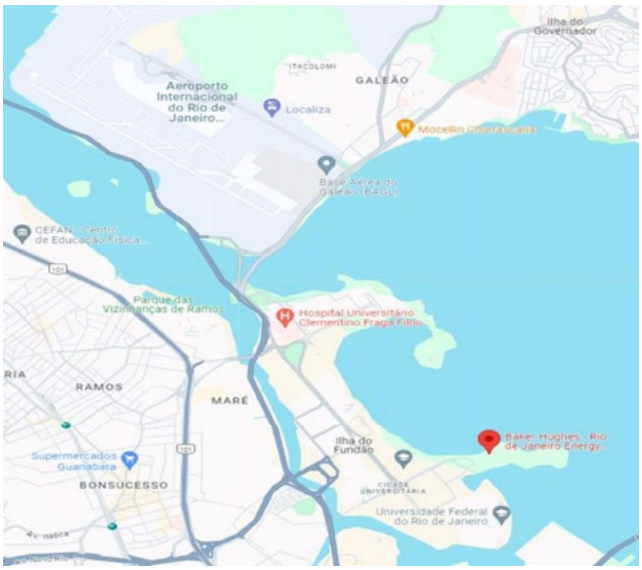
PCA Compression of NMR Echo Trains in Logging-While-Drilling Operations; Wolfgang Weinzierl, Oliver Mohnke, Holger Thern, Radu Coman (Baker Hughes)

Pore Body to Pore Throat Transformation for Complex Carbonate Reservoirs; Wei Shao, Songhua Chen (Halliburton), Shouxiang Mark Ma, Gabor Hursan (Aramco)

Using 2D Nuclear Magnetic Resonance Maps to Support Real-Time Operation Decisions in a Brazil Pre-salt Well; Ricardo Alevato, Elton Ferreira, Chelsea Newgord, Allison Scribner, Megan Ortega (ExxonMobil)

Venue & Transportation 🏛:

Address of the venue: **Baker Hughes – Rio Energy Technology Innovation Center (RETIC), Av. Beira Mar, 2757 - Cidade Universitária, Rio de Janeiro - RJ, 21941, Brazil**



Shuttle Service in the Morning 🚐:

- A dedicated bus will be available to transport conference attendees from the Sheraton Grand Rio Hotel & Resort to the Baker Hughes Rio Engineering Technology Innovation Center (RETIC).
- The bus will commence at 7:30 am from Sheraton Hotel on the morning of the conference.

Return Transportation 🚐:

- Transportation back to Sheraton Hotel after the NMR SIG Conference will be provided. The bus will commence at 6:30 pm and might also stop at a few places along the way.
- Additionally, transportation to the airport might be arranged.

Taxi or Uber 🚗:

- For attendees who are familiar with Rio de Janeiro, the RETIC venue can also be accessed by Taxi or Uber.
- Please note that Baker Hughes has multiple locations in Rio de Janeiro. Therefore, please make sure you provide the driver with the correct address: Baker Hughes – Rio Energy Technology Innovation Center (RETIC), Av. Beira Mar, 2757 - Cidade Universitária, Rio de Janeiro - RJ, 21941, Brazil

Conference Registration :

To register for the NMR SIG Conference, visit the registration website of the SPWLA 65th Annual Symposium. The registration for the NMR SIG Conference is listed as a separate item.

The registration fees for the NMR SIG Conference are as follows:

- Registration for Industry Professionals: $150
- Registration for Students: $50

Registration includes access to conference sessions, shuttle service from the Sheraton Hotel to Baker Hughes RETIC, lunch, non-alcoholic beverages, and light refreshments.

Acknowledgements

The members of the organizing committee would like to appreciate the employers for their support:

Charles (Charlie) Flaum (1949–2023)

Charles Flaum passed away on December 28 after a battle with cancer. He was an SPWLA Gold Medal awardee in 2020 and a Distinguished Technical Achievement award winner in 1995.

Charlie was born in Olsztyn, Poland, under the communist regime. He grew up mostly in Warsaw until 1962 when his family emigrated from Warsaw to Montreal. Both of his parents lived through the Holocaust. His father was liberated from Auschwitz but never talked about the experience. His mother contracted TB in the camps and never recovered, dying shortly after he was born. His father married his nanny, who raised Charles. She was the only mother he ever knew. After the liberation, Charles' father was trained as a lawyer in Poland but couldn't practice in Montreal, so he became a barber. His father instilled in Charles the value of education and critical thinking. When his family settled in Montreal, Charles enrolled in an English-speaking high school, even though he knew no English. He did learn English and was eventually fluent in English, French, and Polish.

He graduated with a BSc degree with Honours in physics from McGill University in Montreal in 1970 and moved with his wife Diane to Rochester, New York, to start graduate school. He received his PhD from the University of Rochester in 1975, specializing in nuclear physics. The subject of his thesis was *Theoretical and Experimental Investigation of Anomalous Behavior of High Spin States in Even-Even Nuclei*. Experimental methods included high-resolution spectroscopy, coincidence, angular distribution, and polarization measurements with Ge(Li) detectors of gamma rays following high energy heavy ion bombardment of different target materials. The theoretical approach involved developing a computer code to perform two-nucleon-plus-rotor calculations of energy levels and E2 transition rates, including Coriolis coupling. His first child was born there, and his second came as he was transitioning to a post-doctoral position at Brookhaven National Lab. He performed post-doctoral research at Brookhaven National Laboratory in Upton, NY, at the Tandem MP VanDeGraaf accelerator laboratory for 2 years. The lab didn't quite suit him, and he took a job with Schlumberger in Duncan, Oklahoma, as a field engineer in 1977. I guess you could say that Charlie didn't start his oilfield career with a typical background.

Charles was married for 21 years to his first wife, Diane. They had three children. Diane died in Paris after a brief illness. After her death, Charles found himself a widower with three children and was overwhelmed dealing with everyday life. He returned to the US and was transferred to the Schlumberger Research Center (SDR) in Ridgefield, Connecticut, where he met his current wife, Mary, with whom he was married for 29 years. Mary had two children. Between them, they have five children and two grandchildren.

He spent 33 years with Schlumberger, including 3 years as a field engineer, 12 years in research (in Ridgefield, CT), 12 years in engineering (Houston, Paris, Beijing), and 6 years in operations/marketing (Denver, Paris). He has authored or coauthored 49 external technical papers in nuclear, electromagnetic (NMR), and interpretation domains. In addition, he coauthored 12 technical papers in *Schlumberger Technical/Oilfield Review.* His research has resulted in 26 US patents in the areas of nuclear, NMR, pressure measurement, signal processing, and general interpretation. He received a Schlumberger Wildcatter Award as a field engineer in 1985 and has twice received the Henri Doll Medal for best R&E papers in Schlumberger symposia. In addition to the Gold and DTA awards from the SPWLA, he received the Cedrik K. Ferguson Award from the SPE in 2004. He retired in 2010, having been a member of SPWLA for over 30 years.

Charlie pioneered the first techniques for transforming neutron-induced capture gamma ray spectroscopy yields into mineralogy. He developed three window algorithms for lithology-density tools and also developed an algorithm for a new thermal/epithermal neutron tool.

In 1998, he became the program manager for magnetic resonance tools, where he made numerous contributions. In 2006, he became program manager for petrophysics at the Beijing Geoscience Center. He eventually moved back to Sugar Land in 2008 as an advisor for LWD magnetic resonance measurements until his retirement in 2010.

After retirement, Charlie and Mary relocated to Fairview Lake in Oregon, close to where two of Charlie's daughters live. Shortly after relocating, Charlie joined a dragon boat team and was an active member of the Golden Dragons until recently. His other activities included volunteering to prepare

tax returns through AARP-Tax-Aid, which he did for many years. He was known in the neighborhood as the guy who helps people with their IT issues. In spite of all that he had to overcome, he considered himself to be a very lucky person.

I have met many outstanding people in a wide variety of specialties, but Charlie is unique in his ability to contribute so much in so many fields. And yet, he was always humble and willing to share information with anyone who was interested. He truly understood physics well enough to explain concepts simply to anyone.

He is survived by his wife, Mary, three children, two stepsons, and two grandchildren.

~Compiled by James "Jim" Hemingway

Charlie participating in a dragon boat race in Oregon near where he retired.

Charlie examining an R-9 log recorder in the Schlumberger Museum. This was similar to what he used when he started as a field engineer.

Welcome New Members – December 14, 2023 – February 21, 2024

Adkins, Brent, SLB, Cypress, TX, United States
Alves, Guilherme, Halliburton, Macaé, Rio de Janeiro, Brazil
Anaya Florez, Julian, UIS, Bucaramanga, Colombia
Angel, Franklyn, University of Houston, Houston, TX, United States
Barrozo Barrios, Ana, UIS, Bucaramanga, Colombia
Basu, Indrajit, SLB, Mumbai, Maharashtra, India
Blanco Dueñas, Lizeth, UIS, Bucaramanga, Colombia
Bounasreddine, Ihab, Baker Hughes, Lafayette, LA, United States
Brinton, Catherine, Crimson Resource Management, Bakersfield, CA, United States
Buitrago Ardila, Diego, UIS, Bucaramanga, Colombia
Chen, Haigui, Hangzhou Ruili Acoustic and Electronic Tech, Hangzhou, China
De Carvalho Carneiro, Cleyton, Universidade De São Paulo, Santos, Brazil
Dottone Briones, Maurizio, Baker Hughes, Rio de Janeiro, Brazil
Geng, Zhou, Yangtze University, Wuhan, China
Goncalves, Leonardo, Petrobras, Rio De Janeiro, Brazil
Govea, Hugo, Independent Petrophysicist, Katy, TX, United States
Greer, James, University of Sheffield, Sheffield, South Yorkshire, United Kingdom
Guevara, Angela, Consultant Bogotá D.C., Colombia
Gutierrez Fontecha, Manuel, UIS, Bucaramanga, Colombia
Hernandez, Omar, Baker Hughes, Houston, TX, United States
Hou, Yulong, Yangtze University, Wuhan, China
Hu, Wei, Yangtze University, Wuhan, China
Latifzai, Ahmad, Devon Energy Corporation, Oklahoma City, OK, United States
Liao, Zhong Shu, Yangtze University, Wuhan, China
Liseanu, Florentina, University of Bucharest, Nasturelu, Teleorman, Romania
Lopez, David, Halliburton, Quito, Ecuador
Lozano Sanchez, Kevin, UIS, Bucaramanga, Colombia
Ma, Yingying, Yangtze University, Wuhan, China
Martin, Matthew, Ovintiv Inc, Montgomery, TX, United States
Mcdowell, Calum, SLB, Crawley, West Sussex, United Kingdom
Melvin, Graham, Geoactive, Kuala Lumpur, Malaysia
Nader, Lukas, Upwing Energy, Bakersfield, CA, United States
Nieves, Israel, IGS Internantional, Bogota, Cundinamarca, Colombia
Pelemo-Daniels, Oyedoyin, Exxon Mobil, Houston, TX, United States
Peñaranda González, Stefany, UIS, Bucaramanga, Colombia
Prasad, Kanchan, SLB, Navi Mumbai, Maharashtra, India
Price, Preston, Price Geo Consulting, LLC, Olney, IL, United States
Quevedo, Heather, Halliburton, Tomball, TX, United States
Rojas Orduz, Karen, UIS, Bucaramanga, Colombia
Ruiz, Jose De Jesus, Technological Institute of Misantla, Madero, Mexico
Sarquez, Carlos, Halliburton, Sandnes, Rogalan, Norway
Serrano Bandera, Paula, UIS, Bucaramanga, Colombia
Singha Roy, Sushovon, Halliburton, Houston, TX, United States
Slechta, Adam, Consultant, Spring, TX, United States
Smith, Lynn, TRACS International Limited, Aberdeen, United Kingdom
Soares Facundo, Francisco Leon, Universidade Federal Do Ceará, Fortaleza, Northeast, Brazil
Spires, Larkin, University of Houston, Houston, TX, United States
Sun, Lei, Hangzhou Ruili Acoustic and Electronic Tech, Hangzhou, China
Sun, Chuanrui, Yangtze University, Wuhan, China
Timken, Chad, Society of Petroleum Engineers, Edmond, OK, United States
Wang, Mingxing, Yangtze University, Wuhan, China
Wei, Ran, Yangtze University, Wuhan, China
Weinzierl, Wolfgang, Baker Hughes, Hannover, Germany
Werner, Andrew, California State University Bakersfield, Bakersfield, CA, United States
Wraith, Edwin, BP, London, United Kingdom
Xiong, Wenhao, Yangtze University, Wuhan, China
Xu, Wen, Yangtze University, Wuhan, China
You, Nan, Aramco Research Center, Houston, TX, United States
Zhang, Wenyi, Yangtze University, Wuhan, China
Zhang, Yuanjun, Yangtze University, Wuhan City, China
Zheng, Yaping, Yangtze University, Wuhan, China
Zhou, Ying, Yangtze University, Wuhan, China