ISSUE 4 | VOL 3 | JULY 2020

SPWLA TODAY NEWSLETTER



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Welcome to the new SPWLA iOS App!

We are excited to share with you that SPWLA is developing a new app to disseminate information. Our members are increasingly spending more time on their mobile devices and we want to be with you where-ever you want us to be. You can find recent news feed, upcoming events, webinar recordings, petrophysics calculators, and much more on this app. Thanks for downloading and please let us know if you have any comments or suggestions.

Mayank Malik,

SPWLA VP-Publications 2020-2022

vp-publications@spwla.org



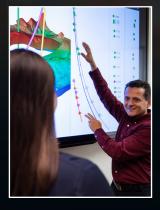
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Notice: Articles published in SPWLA Today are not subject to formal peer review but are subject to editorial review and are verified for technical consistency and relevance.

CALENDAR OF EVENTS

TBD 2020 (Rescheduled)

SPWLA Bangkok Asia Pacific Regional Conference Theme: "Petrophysics: From Exploration to Brownfield; The Impact of Formation Evaluation on Oil and Gas Field Development Decisions" Bangkok, Thailand www.spwla.org

April 15–16, 2021 (Rescheduled)

SPWLA Spring 2021 Topical Conference Topic: "Unconventional Petrophysics" Houston, TX www.spwla.org

Postponed Until Spring 2021

SPWLA Acoustic SIG Fall Workshop Theme: "Borehole Acoustics Workshop: The Road Ahead" www.spwla.org

About the Cover

SPWLA proudly announces the debut of our new SPWLA Today app! Stay connected on the go with SPWLA events, chapter, SIG, and Bridge news, watch videos, use petrophysics calculators, search through a glossary of terms, take quizzes, and more. Currently, the app is only available for iOS devices (iPhone and iPad). Search for "SPWLA" in the Apple App Store or click this link below to download. Let us know what you think about the app and whether SPWLA should develop a similar app for Android devices.

https://apps.apple.com/us/app/spwla-today/id1517618055

From the Editor



Mayank Malik Vice President Publications 2020–2022

Welcome to the July 2020 issue of *SPWLA Today*. This is my first column as Vice President Publications, and I am honored to have the opportunity to lead SPWLA publications over the next 2 years. I would also like to recognize my predecessor Tom Neville's outstanding work and for a smooth passing of the baton over the past few weeks. Our Managing Editor Stephen Prensky has chosen to retire, and we welcome Elizabeth Naggar as the new editor. Thank you, Steve, for your service to SPWLA publications since 2012, and we are glad that you have more time to spend with your grandkids.

I was looking forward to presenting our paper number 5028 on "Maximizing Value From Mudlogging" at the SPWLA Symposium in Banff. Fairmont Banff Springs is such a beautiful location that it didn't take much to convince my wife and 7-year old daughter to tag along. However, we are in unprecedented times, and unfortunately, the in-person symposium has been canceled. But, the show must go on, and SPWLA has done a fantastic job of taking it online over a 6-week period for a nominal cost. My paper will be presented during the second week of the online symposium, and I'm quite excited with the new presentation format followed by the live Q&A session. If you haven't registered yet, please do so soon.



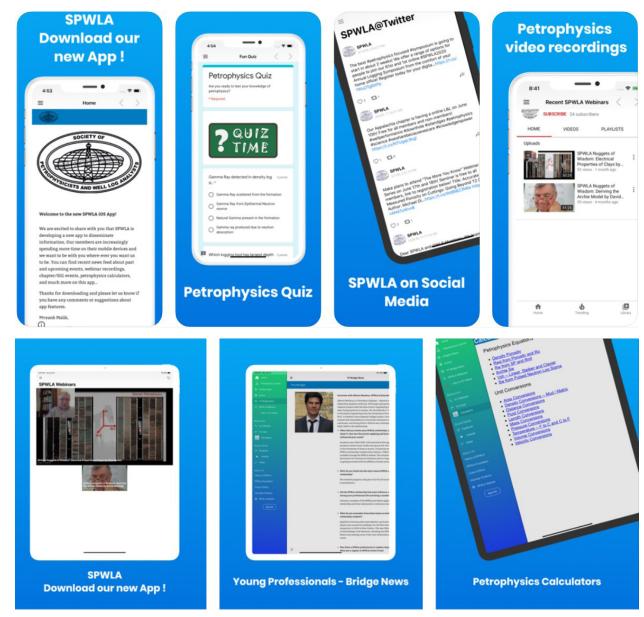
I learned a new skillset of programming in Xcode on a MacBook to develop the SPWLA Today app—available for iPhone and iPad via the Apple App Store.

SPWLA Today is the result of Professor Carlos Torres-Verdin's vision to separate peer-reviewed technical papers from other content that had previously coexisted in *Petrophysics*. The results of the 2019 member survey were not quite so positive for *SPWLA Today*, and the newsletter needs a digital transformation to evolve beyond the portfolio of communication tools that the Society uses. In these unprecedented times, the industry is losing a significant talent pool, and we should find new ways to enhance knowledge sharing. Our SPWLA members are increasingly spending more time on their mobile devices, and we want to be wherever they want us to be. With that goal in mind, as the new VP Publications, I have developed an iOS app for *SPWLA Today*. Search for "SPWLA" in the Apple App Store or click this link to download https://apps.apple.com/us/app/spwlatoday/id1517618055. In the *SPWLA Today* app, you can find out about SPWLA events, chapter, and SIG news, watch webinar recordings, use petrophysics calculators, and search through a glossary of terms. The app is free for our members. Download it today and stay in touch with your petrophysics community. I'm glad to say that "**SPWLA—there is an app for that!**"

We would also like to know what you think about the app. Should SPWLA develop a similar app for Android devices (e.g., Google Pixel, Samsung phones, etc.)? Do you prefer a bimonthly newsletter delivered by email or more timely updates via the *SPWLA Today* mobile app instead? Are there any additional features that you desire in the app?

Mayank Malik Vice President Publications (+1) 713-927-7493 VP-Publications@spwla.org

From the Editor



Our new app features SPWLA news, young professional bridge articles, quizzes, video recordings, petrophysics calculators, and much more...

From the President



James Hemingway 2020–2021 SPWLA President

By now, I hope everyone is participating in our online symposium. This is a first for us, and I hope the last time we are forced into this situation. The first week of our 6-week symposium went very well. Thanks to everyone involved for making this a success by among other things foreseeing potential issues and avoiding them before they arise. What we have learned from this online symposium will no doubt be adapted for use in future endeavors, special topics, and other focused groups. But I think most of us would agree there is no substitute for a live person-to-person symposium where we get to see old friends, exchange information, and have those so all-important offline discussions about what is important to each of us.

I would like to thank Kevin Pyke and everyone else involved in the 2020 Symposium for their hard work organizing the symposium and all the related activities in Banff. I, for one, had a vacation planned around the symposium and was very disappointed when we had to cancel.

I would also like to thank Michael O'Keefe for his hard work in organizing an outstanding technical program. Canceling the symposium created a lot of additional work for Mike who already had his hands full with the technical program.

Having hired on as a field engineer in 1979 and listening to the forecasts at that time for the future, two thoughts come to mind. I wish I had saved some of those presentations, especially as we did not run out of oil by the late 1980s nor had to convert our business into one of only maintaining old wells. And second, I will never make any forecasts about the future unless I can be sufficiently vague, especially regarding dates, about what the future will be.

One forecast we can probably count on is that the concept of "peak oil" has not been relevant to our industry for several years now. The development of other technologies, such as solar and wind power, will eventually become economic without relying on government subsidies. So, without a sharp picture of the industry as a whole, we need to focus on our profession and its interaction with the industry as a whole.

Whether the industry is growing or shrinking, we face a workflow that is often working without logging data and petrophysics as a whole. Forty years ago, we logged and evaluated the data in order to find oil and make completion decisions. But when we know where the oil is, it's all too easy to skip petrophysics. But the last decade or two has taught us that there are many other, even more valuable uses for petrophysics. Enhancing completion efficiency, which should also include future recompletions and putting more of a focus on ultimate oil recovery, requires petrophysical experience and innovation.

Even before the pandemic, economic slowdown, riots, and whatever else 2020 has in store for us, the above issues needed our attention. Now, when we factor in the economy and low oil prices, we have another twist to deal with. Rather than concerning ourselves with doomsday scenarios, we need to look at every issue as a potential opportunity. If an existing technology gets scratched off the list, one option is to explain its value and put it back in place. However, another approach is to propose something better.

I hope everyone enjoys the remainder of our 2020 Symposium. And I hope to see everyone in Boston at our 2021 Symposium. Please be thinking of innovative new approaches to every aspect of our profession as well as improvements to the way things are done today.

Remember, the world was supposed to run out of oil 10 years ago, but we're still here. 💿

Best Regards, James Hemingway SPWLA President 2020–2021 (+33) 6 7573 7688 President@spwla.org

Up Next



Katerina Yared 2020-2021 SPWLA President-Elect

Hello Petrophysics Friends,

As I start my journey with you as acting SPWLA President-Elect, I count all my blessings! I thank you for your support all through the years, and I am very honored for the opportunity and glad to be able to continue to make an impact in our society and serve our membership.

A big thank you goes out to my employer, SM Energy Company, for its continuous support throughout this journey and to my colleagues, friends, and last but not least, my family! Thank you very much!

We are in a period of change in our industry, now more than ever, but we are here to bring change to life. Adapting and repurposing ourselves is key. We will continue to provide training and knowledge-sharing possibilities using different platforms as this is key to the pivoting changes in our industry. I will keep on pounding that drum this coming year with the help of our great members and Board of Directors. #BringingLoggingBackToLife.

SPWLA Chapters! Start sending me your solicitations for Symposium 2022 proposals, usually held outside of the US. Send them to president-elect@spwla.org.

At the Annual Business Meeting, I had the honor to announce the winners of the International Student Paper Contest to the world—my last act as VP of Education. Thank you for the inspiration,

students! Watch the recording on demand if you missed it. Thank you, and I look forward to an inspiring 2020-2021 term!

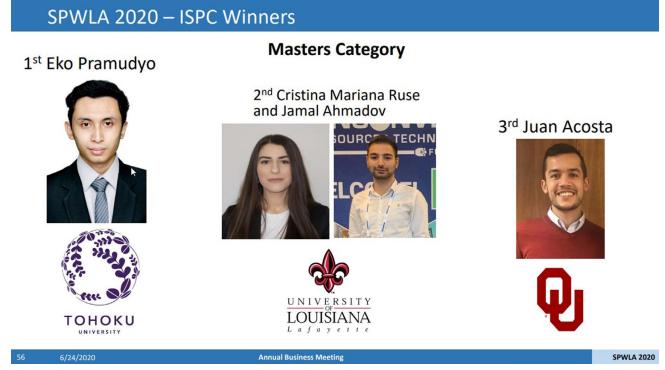
Katerina Yared

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SPWLA President-Elect 2020-2021 (+1) 720-431-7482 President-Elect@spwla.org

SPWLA 2020 – ISPC Winners PhD Category 1st Naveen Krishnaraj 2nd Nur Wijaya 3rd Felipe Perez **Annual Business Meeting**

Congratulations to the International Student Paper Contest winners in the PhD category.



Kudos to the International Student Paper Contest winners in the MS degree category.



Cheers to the International Student Paper Contest winners in the Undergrad category.

Informative Technology



Lin Liang 2019–21 Vice President Information Technology

Over the past year, I have worked with other prestigious board members to serve the SPWLA community and have had a great experience. I am also very happy to continue working with the new board for a second term. I hope that in the next few weeks we can successfully conduct unprecedented virtual seminars.

I would like to take this opportunity to further promote the new initiative of the SPWLA open-source community. The oil industry is traditionally conservative, but the trend tends to be more open. The Open Subsurface Data Universe (OSDU) initiative is an example. You can find it at https://www.opengroup.org/osdu/forum-homepage. For those who are energetic, especially for young people in school, I want to encourage you to join the community and contribute. Of course, this is only for educational purposes, not to compete with any company. The community is hosted on GitHub. Free and open resources are constantly collected and stored there. For the SPWLA chapters and SIGs, you are welcome to use this platform to organize contests. The SPWLA open-source repository is located at https://github.com/SPWLA-ORG. Follow all the rules you should to comply.

If you are interested in starting an open-source project under the SPWLA organization, please send your request to VP-InfoTech@spwla.org. Hope you enjoy the upcoming Symposium and stay safe.

Lin Liang Vice President Information Technology (+1) 617-335-4469 VP-InfoTech@spwla.org

Learning Opportunities



Fransiska Goenawan 2020–2022 Vice President Education

Dear SPWLA Members,

Greetings!! It is an honor for me to address you here. I want to offer high praise to all the voters who participated in the election for the VP of Education—whether for Chicheng Xu or me. Thank you so much. My heart is so overwhelmed with your trust, and I am so excited and look forward to serving you in the next 2 years.

Also, I would like to thank Katerina Yared as the previous VP of Education for all her guidance and support in the past 2 months. She has built a great foundation for me to begin my work. Katerina, thank you for all that you have done in the past 2 years and congratulations on your new position as President-Elect.

We kick off this year with a unique situation. Although the COVID-19 pandemic has spread almost globally, we should not let that stop us from continuing to learn. Indeed, we have seen that during the past several months, virtual meetings have become one of the most effective ways to learn and continue to grow.

We will continue to use webinars as a way to communicate until we can conduct seminars again in person. Please let me know if your chapter needs to set up a webinar. We are here to help. When an updated Distinguished Speaker list becomes available, I will set up our regular

monthly webinar. Hopefully, we can host our first one in September or October 2020. If you identify any good speakers from your region, please let me know so we can invite them to spread their knowledge around the globe.

Finally, I am looking for highly enthusiastic people around the globe to join me on this team. Please let me know if you are interested. I welcome any ideas and feedback that can bring more benefit to SPWLA.

Thank you, and let's have an amazing year ahead!!

Kind Regards, Siska Goenawan (+1) 346-401-8201 VP-Education@spwla.org

Regional Understandings – North America 1



Robin Slocombe 2020–2022 North America 1 Regional Director

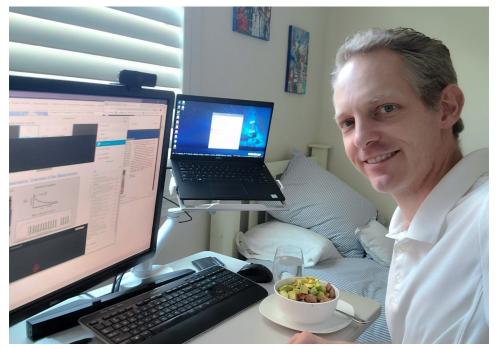
Thank you for voting to give me the opportunity to represent and serve our North American SPWLA team members for the next 2 years. It is a great privilege, and I am committed to building on your trust and doing my best to take the SPWLA forward. I would also like to thank Adam Haecker for his hard work and professional approach to holding the role for the last 2 years. I am looking forward to working with his counterpart, Kelly Skuce, and I thank both of them for the detailed handover a few weeks back.

A quick glance at previous years' *SPWLA Today* publications shows photos of smiling faces from friends and colleagues at glamorous locations in London, Houston, and beyond. I've never been to Banff, but my heart is there as I write this, breathing in the cool mountain air and sharing some cool mountain drinks with good friends! Sadly, it was not to be. Mike O'Keefe and many others are working tirelessly to bring us a taste of what could have been in terms of a rich technical program, and authors are producing professional presentations with glimpses of the smiling faces we had hoped to see in person. If the challenges presented by a global pandemic were not enough, our industry is also facing another crisis. The magnitude of the changes and uncertainty we are facing sometimes seem overwhelming, but within the confusion there are glimmers of hope and

excitement in discovering the benefits of a new way of working and living. Through the challenges, uncertainty, and isolation, many of us have had a chance to connect with family, friends, and colleagues in new ways as we collectively reach out for support, information, and companionship.

It is that spirit I would like to build on during my tenure as Regional Director for North America 1. Many chapters have adopted webinar and remote-learning formats to continue to bring material to the membership. We will conduct the upcoming board and business meetings remotely. As we become increasingly familiar with these powerful online platforms, I see the next 2 years as an opportunity to go further in connecting our membership safely and efficiently with relevant, valuable material and with one another. We will find new ways to remain easily accessible to support our colleagues in transition and potential new members as they start a fulfilling, although sometimes turbulent career!

Robin Slocombe North America 1 Director (+1) 281-690-0837 Director-NA1@spwla.org



The new normal work environment.

Regional Understandings – North America 2



Kelly Skuce 2019–2021 North America 2 Regional Director

Dear SPWLA members,

I am writing this article from the comfort of my home while listening to the first day of our 61st Annual Symposium. As some of you may know, I reside in Calgary, only an hour's drive from Banff, so I have both negative and positive feelings about the "new normal" we are living in. My personal attitude and work-life balance has gone through a lot of changes over the past 12 months.

A year ago, I was full of excitement that my newly elected tenure to the SPWLA Board of Directors would coincide with my home society and province hosting the 61st Annual Symposium! However, the Canadian oil patch was hit hard over the past few years, and I was let go from my employer on the last day of the symposium. I know! Then the oil price collapse happened, followed by the coronavirus pandemic. What was a person to do when the "new normal" arrived? Pretty big emotional swings over a short time frame

With respect to the "new normal," I notice there are two slightly different states—AT and FROM.

Work **FROM** home consists of consulting work, attending webinars, enrolling and learning in training sessions (Python, ML/AI, geothermal), and meeting virtually with people from all over. But, it ends at the home office door (if you have one).

Work **AT** home is the same as you are still meeting every day, but it is your immediate family. I pass my spouse's office door (she works from home as well) and give a quick head nod from the hallway. I go to the kitchen to get some coffee but ask her if she wants a snack or some tea while I am there. I have water cooler chats with my adult children (who are now stuck here with little to no social life) about the weekend and what is going on in their lives. Some other office workers are extremely demanding on your time and interrupt your meetings with barks and yips whether you like it or not!

I like the "new normal." It has been good for all sides to sit, chat, and make a meal together.

However, it has been a big change for the corporate world, assessing individual results vs. company needs. But I feel, for the individual, it has been a good way to reassess what really is important for your personal work-life balance.

As a last note, remember to attend the online symposium as I will be chairing Session 4B on Unconventionals on July 15. Stay healthy out there and wear your mask!

Kelly Skuce North America 2 Director (+1) 587-228-0203 Director-NA2@spwla.org



See my new COVID mask with my favorite Saskatchewan Roughriders football team on it!

SPWLA SEVENTH BOARD OF DIRECTORS MEETING SPWLA BUSINESS OFFICE HOUSTON, TX MAY 14, 2020

President Jesús M. Salazar called the meeting to order at 8:00 am. This meeting was attended remotely by all members on the board. In attendance Vice President Finance Doug Patterson, President-Elect James "Jim" Hemingway, Vice President Technology Michael O'Keefe, Vice President Education Katerina Yared, Vice President Publications Tom Neville, Vice President Information Technology Lin Liang, Regional Director N. America 1 Adam Haecker, Regional Director N. America 2 Kelly Skuce, Regional Director Asia/Australia Jennifer Market, Regional Director Middle East Mark Ma, Regional Director Latin America Nadege Bize-Forest, Regional Director Europe Craig Lindsey, and Executive Director Sharon Johnson

A motion made by Doug Patterson to accept his proposed registration fees for the online annual symposium was seconded by Jim Hemingway. All approved and the motion passed.

A motion made by Kelly Skuce to waive the reading of the minutes from the April 15th board meeting was seconded by Tom Neville. All approved and the motion passed.

A motion made by Jennifer Market to accept the Bylaw changes presented by the JFES Chapter was seconded by Doug Patterson. All approved and the motion passed

Action Item: Tom Neville to set up a meeting/interview for potential candidates to fill the Managing Editor's position.

Action Item: All board members submit your volunteer opportunities description for the website.

A motion made by Michael O'Keefe to adjourn the meeting was seconded by Kelly Skuce at 9:35 am.

Respectively Submitted by Sharon Johnson, Executive Director

No additional meetings



SPWLA Young Professionals Newsletter



Inject Some Real Laughter Into Your Virtual Meetings

JULY 2020

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In this edition:

Inject Some Real Laughter Into Your Virtual Meetings by Kanay Jerath

An Interview With Ayaz Mehmani

An Interview With Alberto Mendoza (Past SPWLA Scholarship Recipient)



Kanay Jerath

Did you know that, on average, people laugh about 18 times per day? And that 97% of that time we're laughing with others?

There's a familiar saying that reminds us that "laughter is the best medicine." In more "normal" times, this saying might feel overstated. Everyone enjoys a good laugh, and when times are good, we can laugh easily with others and find the humor in daily life. Currently, though, when we're working from home amid a pandemic and dealing with other personal and professional challenges, laughter has become a significant casualty of social distancing.

Many oil and gas professionals have turned to video conferencing services, like Zoom, Skype, or Microsoft Teams, to remain productive and connected to our colleagues as we continue to work from the safety of our homes or socially distanced workplaces. While certainly convenient, meeting 100% virtually

does have its drawbacks. Namely, it does not make up for the fact that we are still socially isolated, in many cases, from our colleagues, friends, and peers. Humans are simply not socially nor neurologically evolved to withstand long-term isolation. So much of our emotional well-being is predicated on physical proximity to others. And, when we do not feel emotionally well, we are less productive at home and at work.

These are stressful times to be sure, but there are some easy ways we can work together virtually to relieve stress, improve our emotional well-being, and become more productive in our daily lives. One of these ways is to foster an environment where laughter comes easier. Think this focus on laughter is a bit silly? Think again.

The Mayo Clinic notes that a good laugh lightens your mental load and induces physical changes in your body. When you laugh, your body takes in oxygen-rich air, your muscles relax, your circulation improves, and endorphins are released into your bloodstream, thereby relieving pain and triggering feelings of pleasure. A good laugh also cools down your stress response and lowers your heart rate and blood pressure. (True story: I once showed my wife a compilation of funny baby animal videos to help lower her blood pressure before she went into knee surgery.) Long-term effects of laughter include improving one's immunity, relieving pain, increasing personal satisfaction, and improving your overall mood.

Now that you know how important laughter is to our health and well-being, here are a few ways you can use your virtual meetings to help your colleagues laugh more and stress less:

Slow down

Virtual meetings tend to be rushed. We're all busy—some of us also have children at home—and we just want to get in, get out, and get on with our day when it comes to meetings. Efficiency and productivity are important, but so is being mindful of connecting socially, emotionally, and psychologically with others. Ask questions that are not work related, share a funny or inspiring story, or simply let your colleagues chatter a bit before getting down to business. Make room for laughter and positivity.

Show your face—and encourage others to show theirs

Think about how often you've smiled or laughed just because you see someone else smiling or laughing. Many sitcoms even have laughter tracks built in to encourage the audience to laugh. Just as yawns are contagious ("Mythbusters" proved they are!), so is laughter. Turn on your webcam and show

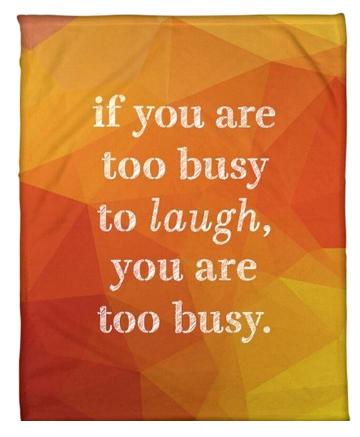
your smiling face, and make sure all your colleagues can and do attend via video. (Your quarantine hairstyle may be enough to make them laugh!)

Set the mood before you begin

Get your own endorphins firing before you call in to the meeting. Take a few minutes to watch a funny video or relive a funny scenario—once laughter and positivity take root, it's easier to keep it going. If you recently found a funny, work-appropriate quote, video, or comic, consider making it the first thing you share during the meeting. (Caveat: Remember your audience and what's *not* generally considered funny.)

These challenging times will not last forever, and one day, we will be able to safely get back to more natural social interactions. Working from home, however, will become the new long-term norm for many, which means we must continue to find ways to inject laughter and positivity into our daily lives. As the venerable Dr. Seuss says, "[f]rom there to here, from here to there, funny things are everywhere." Let's all endeavor to find and share the lighter side of life with each other. After all, those who laugh, last!

Contents of this article have been inspired by/adapted from the following Harvard Business Review article published on May 27, 2020. https://hbr.org/2020/05/laughter-will-keep-your-team-connected-even-while-youre-apart



An Interview With Ayaz Mehmani



Ayaz Mehmani

Ayaz Mehmani is a research scientist in Houston, Texas focused on geoscience applications. He has BSc and MSc/PhD degrees in Petroleum Engineering from Sharif University of Technology and The University of Texas at Austin, respectively. Prior to joining OAG Analytics as a Research Data Scientist, he was a Postdoctoral Fellow and Research Consultant at UT Austin. His research has spanned from developing digital rock physics algorithms to lab-on-a-chip devices for predicting the petrophysical properties of unconventional formations, which has led to multiple peer-reviewed and conference publications. He is currently focused on developing data analytics and machine-learning workflows for enhancing operation strategies in the subsurface.

The Efficacy of Data-Driven Methods in Petrophysics and Geophysics

Share with us your background in data science, data analytics, and machine learning.

It came into my field of view when I was about to graduate with my PhD in 2015. As I read about it and its applications, I grew increasingly interested. I became serious with data science when I enrolled into a certificate program at The University of Texas at Austin in 2018, and the next year joined OAG Analytics as a Research Data Scientist.

What resources were most helpful for you to upskill in the areas of data science, data analytics, and machine learning? What resources are best for discovering the latest advances in the world of data?

I should say that I still am and hope to continue upskilling in data science. The most helpful resource I have found isn't an external one but rather to bring myself to engage in active learning. It is challenging since there is a tendency to read and watch tutorials and feel ready before you start building projects on your own. There are many online resources and books that can get you started. It is important to start working on projects early and find your way forward as you encounter problems.

For external resources, there are excellent books on theory (such as *An Introduction to Statistical Learning* and *Elements of Statistical Learning* from Stanford University scientists) and practice (for example, *Python Machine Learning* by Raschka and Mirjalili) that I have found useful. Stack Overflow is an incredible resource as well. For me, UT's Data Analytics Program was a good source, but I am sure there are other excellent bootcamps and programs out there as well. Data science is a vast area with many applications. I am sure Google Scholar can narrow down the publication genre in which one would like to specialize.

Describe a few interesting use cases of data-driven methods in petrophysics, geophysics, or physics in general. What use cases clearly demonstrate the need and the efficacy of data-driven methods?

There has been fascinating work done from reservoir development to petrography and digital rock physics. In my opinion, any application of data science in geoscience in general is worth paying attention to since we are still establishing algorithms and best practices.

What are a few limitations of data-driven methods that you have encountered? How do you overcome these limitations? What problems cannot be solved using data-driven methods?

Ultimately, data-driven methods provide patterns and relationships that exists within data and not the physics behind them. Given the amount of uncertainty in geoscience operations, it becomes very difficult to develop *a priori* and first-principle methods to predict the outcome, and this is the immense value that data analytics and machine learning provide. That said, data science inherently does not tell you the reason behind these relationships. Subject matter expertise is critical in interpreting and doing sanity checks when relationships pop up (or when they don't). There could be problems with the data sets, or there might be a nontrivial phenomenon occurring that is worth diving into with physics-based methods to build constitutive equations for. Another limitation can be data quality or lack of data that stymie a data-driven approach. I think this is where our community can provide assistance through academic-industry partnerships and sharing legacy data sets.

When is a physics-based approach more effective and efficient than a data-driven approach? How does domain knowledge influence data science? How do you use physics to improve the efficacy of data-driven methods? Share some examples.

I would hesitate to label one more effective than the other in field applications. Unless we are investigating a phenomenon in a well-defined and simple medium, I think both approaches complement each other. Geoscience applications are multivariate with many sources of uncertainty. A data-driven approach can give you the bottom-line story that the data are revealing, but

An Interview With Ayaz Mehmani

not the reason behind the story. Domain knowledge can guide the data scientist in data preprocessing and feature engineering to designing machine-learning pipelines. Let's say a particular fracture fluid composition comes out to have the most impact on fracture fluid flowback—a data-driven approach stops there. It is up to the domain expert to determine a sensible range for fracture fluid propagation or rock-fluid interaction.

How can domain experts and technical personnel incorporate data-driven methods in their day-to-day work? Should the data-driven implementations be done by data scientists and data engineers or can such implementations be accomplished by domain experts without the need of data scientists/engineers?

I would encourage nondata scientists who are interested in incorporating data-driven approaches to obtain some understanding of data analytics and machine learning. Likewise, in my opinion, it is a good idea for data scientists to acquire some understanding of the domain with which they are engaged. That said, a preliminary knowledge of data science is not a replacement for experience and expertise. This really applies to anything, right? You would want to have some understanding of the human cardiovascular system to communicate better with your physician—but eventually you need a physician to diagnose and provide treatment (consultation and/or software in our analogy) for you.

It is easy to create a proof-of-concept data-driven method. Please share with us some challenges when scaling up these methods for real-world deployment.

They range from data quality and data availability problems, visualization methods (remember we are dealing with multidimensional systems), computational challenges, proper dimensional reduction methods, up to communicating findings and observations. To overdo the analogy, clinical trials on humans tend to be more difficult compared to results coming from simpler systems such as mice.

Many petroleum engineers and geoscientists are learning new skills to become data scientists and data analysts. What should they be careful about when making such transitions? What are some aspects of petroleum engineering and geoscience that are far superior than data science and analytics? Which aspects of data science and data analytics are not suitable for domain/ technical experts? Why is data science not for everyone?

I am hesitant to give career advice because I am fairly young in my own career, and also there are many factors that influence a person's decision. For what it's worth, I think it is a good idea to be honest with one's motivation. If you are getting into this field only because of job opportunities, would you regret your decision if the markets decided there is an oversaturation of data scientists tomorrow? And, if you are leaving your field of expertise, would you regret having done so if there was suddenly a big demand for it? That said, I would encourage everyone to learn some of the data science topics. If anything, it broadens your perspective and gives you new ways to approach problems that you probably weren't aware or conscious of before. In my opinion, data science is not inherently better or worse than other topics. It is a different approach to solving difficult problems. So why not learn and take advantage of it to solve the problems you are tackling in your particular field? Some more advice, which applies to learning data science and learning in general, is to be comfortable with the discomfort of having your assumptions challenged. Learning a new skill offers you humility that you might have lost if you were successful in what you were already doing.

Any other questions or concerns that you want to address?

Have fun with uncertainty.



An Interview With Alberto Mendoza (Past SPWLA Scholarship Recipient)



Alberto Mendoza

Alberto Mendoza is a Petroleum Engineer–Operate and Sustain–Subsurface Analytics with Lytt. Previously, he was a group leader for oil and gas research projects with the Data Centric Engineering Programme at the Alan Turing Institute in London, UK. He holds PhD, MSc, and BS degrees in Petroleum Engineering from the University of Texas at Austin and an MSc in Statistics from Imperial College London. From 2008 to 2014, he worked with ExxonMobil as a Formation Evaluation Specialist in the USA and Russia, and during 2014 to 2016, he was a Petrophysical Engineer with Shell | NAM in The Netherlands.

When did you receive your SPWLA scholarship, how did you know about it, how was the process of applying, and how did that help you or influence your career?

I received it during my academic year 2004–2005. I was informed about this opportunity by my professor, Carlos Torres-Verdin, during my MSc in Petroleum Engineering at The University of Texas at

Austin. Coached by my friend and past SPWLA scholarship recipient Jesus Salazar, I filled in an application available through the SPWLA website. The scholarship increased my fascination for formation evaluation and to a larger extent my interest in getting involved with SPWLA activities and publications.

What do you think was the main reason SPWLA approved your scholarship?

The research program I was part of at UT and my desire to develop skills in petrophysics.

Did the SPWLA scholarship have some influence on the path you took during your professional life and being a member?

I became a member of the SPWLA just before applying for the scholarship and have maintained a continuous membership since then.

What do you remember from those times as a student and SPWLA scholarship recipient?

Significant learning about petrophysics, particularly logging tool physics and numerical modeling. For the first time, I attended an SPWLA Symposium in 2004 in New Orleans. This was followed by an internship at Schlumberger Doll-Research, attending the SPWLA Symposium in Mexico, and meeting some of the most influential professionals in my career.

Was there an SPWLA professional or student chapter in your school? Were you a regular at SPWLA events if any?

Not sure if we had a student chapter then.

What was your biggest challenge during graduate school and how did you overcome it?

Passing PhD qualifying examinations. Months of studying and practicing with other graduate students. Also, taking a couple of additional courses.

Is there a mistake you made in school that you want to share with others to avoid?

Do not isolate yourself. The sooner you learn to work with others, the better.

Who was your role model at school and when you started your career? You can name more than one.

There are several including my supervising professor Carlos Torres-Verdin and coadvisor Dr. Bill Preeg, then mentors like Darwin Ellis, Quinn Passey, and Dale Fitz to name a few.

How did you start your career in petrophysics and formation evaluation?

Following a field-engineering job in well testing, I joined the Formation Evaluation Research Consortium at UT.

How do you convey the importance of petrophysics/formation evaluation to your colleagues from other disciplines when collaborating on a project?

I educate my colleagues about the technicalities of the logging data and the various subsurface insights that can be garnered from the logging data while being aware of their limitations. I emphasize the need to constrain the uncertainty in reservoir

An Interview With Alberto Mendoza (Past SPWLA Scholarship Recipient)

properties with data from the near-wellbore region to help better understand field-scale models through the life of a field. I recommend they follow the available data (i.e., not just throwing an interpretation over the fence, but validate how the interpretation can be used).

Where do you see yourself in five years?

Going ahead, I see myself learning new things and adapting to the changes that our industry needs.

What do you recommend to current students in petroleum engineering and geosciences, especially with work/research in the field of petrophysics/formation evaluation?

Definitely stay involved in professional societies like SPWLA and SPE, develop a network, and remember, there are many experienced professionals worth listening to and learning from.

How do you see the future of SPWLA and what do you think we need to do to keep our society current?

SPWLA will need to keep on adapting to changes and continue to provide a great platform for petrophysicists, engineers, and geoscientists to network.

Anything else you want to add.

Thank you.

ABERDEEN CHAPTER (Aberdeen Formation Evaluation Society, AFES)

General News

We are now into unprecedented times, and as such, all our short-term AFES events have been affected. As with any organization, we are rescheduling and reorganizing as best we can, but the immediate calendar is still in a state of flux. Please bear with us.

If the COVID-19 situation remains unresolved into the summer months of 2020, we'll look into more use of webinars and virtual meetings to keep AFES current.

Recent Events

20 May 2020—AFES hosted Stein Ottar Stalheim (Equinor) via video conference from Stavanger. The audience was largely Aberdeen based. The event was our first webinar and was well attended. Details and also the presentation are available for download via the "archives" section of the AFES website (www.afes.org.uk).

Upcoming Events

- Mid-July 2020—A St Cyrus field trip is proposed. St Cyrus (a coastal town around 30 minutes south of Aberdeen) offers a great opportunity to see lava intervened with sedimentary layers. We'll review in late June and assess if we can safely and practically host this event, within the safety guidance from the authorities.
- 22 July 2020—Wednesday evening lectures: AFES plans to host Harry Xie (CoreLab and SPWLA Distinguished Speaker) for a lecture on the "Investigation of Physical Properties of Hydrocarbons in Unconventional Mudstones Using Two-Dimensional NMR Relaxometry." This will be held through a virtual webinar platform. Details are available via the AFES website.
- 03 September 2020—Our Full-Day Seminar ("Core: The Most Valuable Asset in Your Reservoir") originally planned for 02 April 2020 has been tentatively rescheduled. We'll make a decision to the feasibility and form of this event nearer the date, depending on current COVID-19 restrictions.





AFES 2020 Seminar

Core: the most valuable asset in your reservoir Rescheduled to early September 2020 - date TBD

Crowne Plaza Hotel, Aberdeen Airport

25–26 September 2020—Finally, Devex2020 (www.devexconference.org) has been tentatively rescheduled. This event was originally intended to be held 05–06 May 2020. Please check our website (www.afes.org.uk) or contact greg.blower@gaia-earth.co.uk for details.

Finally, AFES would like to extend thanks to our sustaining annual sponsors:



ACOUSTICS SIG

Upcoming Events

Spring 2021—The Acoustics SIG has made the unfortunate decision to postpone the planned fall workshop on "Borehole Acoustics: The Road Ahead" in light of COVID-19 concerns. The workshop has a primarily open discussion format, and the SIG committee feels that for the workshop to be fully effective, it would need to be held in person and not online. Once a new date and location are confirmed, the updated information will be communicated to all members. Those abstracts currently submitted will be kept for consideration for when the workshop is held.

AUSTRALIA CHAPTER (Formation Evaluation Society of Australia, FESAus)

General News

FESAus, the Australian chapter of SPWLA, combines the formation evaluation societies from around Australia, predominantly Western Australia, as well as FESQ, New South Wales, Victoria, and South Australia. With the great work done by Australians to date in managing the COVID-19 outbreak, we are looking to resume in-person chapter meetings in July, while discussions are ongoing as to continuing the webinar series hosted by Halliburton. Our meetings are held the second Tuesday of each month, and we welcome new members to visit www.fesaus.org to join us.

2020 Committee Members		
President	Wesley Emery	
Vice President	Vacant	
Company Secretary	Vacant	
Treasurer/Monthly Meeting Coordinator		
	Jean-Baptiste Peyaud	
Website Coordinator/Data Standards Focal Point		
	Diego Vasquez	
Secretary/Intersociety Liaison/Social Coordinator/		
Special Events and Awards	Leanne Brennan	
Membership Coordinator	Siobhan Lemmey	
Audio Visual Coordinators	Nigel Deeks	
	Yang Xingwang	
Newsletter Coordinator	Bronwyn Djefel	
Queensland Representative	Marcel Croon	
South Australian Representative	Matthew Pfahl	
Victoria Representative	Matthew Durrant	
NSW Representative	Harris Khan	
New Technology Forum Coordinator		
	Vacant	
Education Group Leader	Vacant	

Recent Events

- 14 May 2020—Aldrick Garcia Mayans (Schlumberger) joined us from Kuala Lumpur to share his presentation on "Derisking Reservoir and Fluid Data Acquisition in South East Asia Using Fluid Mapping-While-Drilling Technology." It was a very interesting presentation with some great case studies that helped the virtual attendees understand the applications. Additionally, they were able to discuss the relevance locally with a regional expert.
- 09 June 2020—Our second technical webinar was presented by Alberto Cesar Ortiz (SPWLA Regional Speaker 2019–2020) on his work, "What Have We Learned From Petrophysical Evaluation of the Vaca Muerta Formation During the Last 5 Years of Unconventional Shale Play Exploration and Development?" It was a very well-received presentation with plenty of interest and questions from our audience.



Alberto Ortiz presented his work at the second FESAus technical webinar.

Upcoming Events

July 2020—Our first in-person event post-COVID-19! It will also be hosted via webinar for interstate members. "Production Logging: The Essential Guide to the Dynamic Behavior of Your Well" will be presented by Nick Last (consultant).



Nick Lane is scheduled to present at the FESAus in-person event in July 2020.

BAKERSFIELD CHAPTER (San Joaquin Well Logging Society, SJWLS)

General News

The SJWLS continues to hold its monthly meetings in a webinar format since nonessential public gatherings have been canceled as a result of the COVID-19 outbreak.

Recent Events

- 20 May 2020—The May meeting was held as a webinar. Our speaker was Nigel Clegg, and the topic of the talk was "The Final Piece of the Puzzle: 3-D Inversion of Ultra-Deep Azimuthal Resistivity LWD Data."
- 17 June 2020—The June meeting was held as a webinar. Our speaker was Dayanand Saini, and the topic of the talk was "Mechanistic Modeling of Wetting Behaviors of Complex Rock/Oil/Water Systems for Estimating Rupture Disjoining Pressure."

Upcoming Events

July–August 2020—SJWLS will have a summer break.

BANGKOK CHAPTER

General News

With the current health crisis, local SPWLA meetings have been canceled until the situation allows for social gatherings. No meeting was held in May.

2019–2020 Chapter Committee Members President Andrew Cox Technical Coordinator Numan Phettongkam Treasurer Sirinya Maykho Web Coordinator **Alexander Beviss** Secretary Ronald Ford Sponsorship Ryan Lafferty Student Liaison Kruawun Jankaew Member at Large Greg Heath

For meeting information, please visit: https://www.spwla. org/SPWLA/Chapters_SIGs/Chapters/Asia/Bangkok/Bangkok. aspx or email: bangkok.chapter@spwla.org.

Recent Events

June 2020—The SPWLA Bangkok Chapter hosted a webinar featuring a presentation on "3-D Inversion of Ultra-Deep Azimuthal Resistivity LWD Data" by Nigel Clegg (Halliburton and SPWLA Distinguished Speaker). This was the first webinar held by the Bangkok Chapter and was very successful. Our thanks to Andrew Cox and Numan Phettongkam for taking the lead in organizing the event, and to Ryan Lafferty for acting as online host.

Upcoming Events

TBD—The SPWLA Bangkok Asia Pacific Regional Conference 2020 was postponed and will be rescheduled when the safety of participants can be assured.

Special Announcement

Please contact us at ap2020@spwla.org for the latest updates or with any questions regarding the SPWLA Bangkok Asia Pacific Regional Conference 2020.



BOSTON CHAPTER

General News

We continue to prepare for the 62nd SPWLA Annual Symposium to be held in Boston in May 2021. Despite the disruptions from the COVID-19 pandemic, the Boston Chapter and the symposium organizing committees are in regular contact and are laying the groundwork for a great reunion of the society in 2021.

Meanwhile, several members of the Boston Chapter have had the privilege of presenting their work in the online 61st Symposium that is currently underway, with more presentations to come. We will summarize in the next issue after the symposium is concluded.

SPWLA general members and Boston-affiliate members are invited to browse our chapter website http://boston. spwla.org for up-to-date information on our mission and events, including event details and registration.

CENTRAL EUROPE CHAPTER (Central European Formation Evaluation Society, CEFES)

Recent Events

03 March 2020—Our inaugural seminar was held at the Romanian National Geological Museum. The event's focus was "Nuclear Magnetic Resonance." The seminar had a spectacular turnout with every seat in the house filled (>50 participants!). Excellent presentations were given by David Maggs (Schlumberger) and Paul Spooner (Lloyd's Register). Special thanks to Jorge Gonzalez Iglesias (President) who has been the prime mover. It was a great start to what will certainly become a grand chapter in the SPWLA!

Romanian Oil History

1769—First recorded rudimentary oil extraction

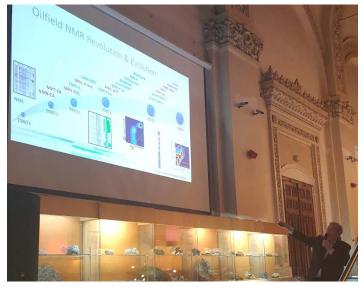
1857—First country registered with oil production (275 tons), 2 years before the United States

1940s—Largest European producer of oil in WWII at 504,000 bbl/day

Chapter News



The National Geological Museum was the site of the inaugural seminar of the CEFES.



David Maggs (LWD Petrophysics Domain Head, Schlumberger) discusses the revolution and evolution of NMR in the oil industry.



Participants listen intently to one of the presentations.

CHINA UNIVERSITY OF PETROLEUM (BEIJING) STUDENT CHAPTER

General News

Virtually, we organized students preparing to participate in the 61st Annual Conference Student Paper Contest for the PPT report and video recording.

Recent Events

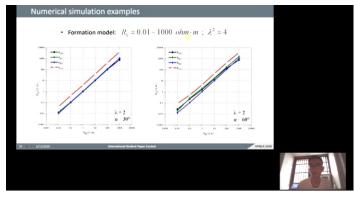
11 June 2020—Due to the impact of the pandemic, all participating students were unable to return to school. Students could only participate through online video conference. The contestants presented their PPT reports from their homes. Staff members from the student chapter were responsible for recording the presentations to help the students successfully participate in this year's special SPWLA Annual Meeting.

Upcoming Events

Moving forward, we will publicize the 61st SPWLA Annual Meeting and actively mobilize logging students to participate in the online conference.



Wang Hao presenting his report.

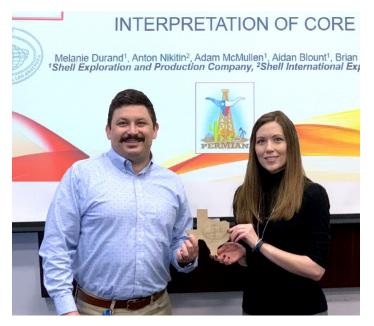


PPT content during a presentation.

DALLAS CHAPTER

Recent Events

- March 2020-Melanie Durand, the last invited speaker for the Dallas SPWLA Chapter monthly luncheons this spring, presented her talk titled "Crushed Rock Analysis Workflow Based on Advanced Fluid Characterization for Improved Interpretation of Core Data." She described a new retort-based core analysis workflow using improved core characterization and fluid extraction techniques to provide more accurate measurements of core fluid saturations in tight rock. The presented new workflow, using NMR and specially developed fluid collection apparatus, reduces the uncertainties in acquired data and better addresses the assumptions (i.e., parameter corrections for fluid losses) in interpreting measured data into core total porosity and core fluid saturations. An underestimation of water saturation by at least 30% was shown by comparison of previously crushed rock core analysis of Wolfcamp A samples by conventional techniques to an estimation by this improved method. With unconventional plays in the Permian Basin still active at that time, a lengthy discussion followed the presentation.
- April–May 2020—The Dallas Chapter followed the COVID-19 gathering restrictions executive order by Texas Governor Greg Abbott, and no meetings were held in April or May.



(From left to right) Matt Drouillard (Chapter VP/Technology) and Melanie Durand (Shell).

DENVER CHAPTER (Denver Well Logging Society, DWLS)

General News

We are hoping to resume lunch meetings in the fall starting in September. The DWLS Spring Workshop–Horizontal Petrophysics: Applications and Interpretation Techniques in Reservoir Characterization has been canceled and will be rescheduled for 2021. The DWLS-RMAG Fall Symposium is still scheduled for 27 October 2020 at the American Mountaineering Center in Golden. The joint symposium topic is "Maximizing Value of Core and Fluid Analysis."

Recent Events

May 2020—Our first DWLS webinar was held in May. It was a success and well attended. The speaker for our May lunch webinar was Chelsea Newgord (UT Austin–SPWLA Distinguished Speaker) who presented "A New Workflow for Joint Interpretation of Electrical Resistivity and NMR Measurements to Simultaneously Estimate Wettability and Water Saturation." The abstract and more information on Chelsea can be found on the DWLS website under Newsletters: http://dwls.spwla.org/Newsletters.htm.



Chelsea Newgord (UT Austin–SPWLA Distinguished Speaker) spoke during the May webinar.

Upcoming Events

22 September 2020—The next DWLS September talk has been scheduled with the speaker to be determined. Visit the DWLS website at http://dwls.spwla.org to make your reservations. The DWLS monthly meetings are held the third Tuesday of the month, from September through May. Be sure to visit our online calendar to see what is scheduled for the upcoming speaker lineup. 27 October 2020—The DWLS-RMAG Fall Symposium features the topic "Maximizing Value of Core and Fluid Analysis." More information will be added to the DWLS website soon.

FORMATION TESTING SIG

General News

We are honored to announce that Soraya Betancourt had joined the FT SIG steering committee. Soraya is a Principal Reservoir Engineer at Schlumberger with incredible experience in formation sampling and testing. She is taking over responsibilities for Thomas Pfeiffer who moved to Europe to be part of the Shell FEAST team.

Upcoming Events

Our annual technical meeting was canceled due to the COVID-19 pandemic. The FT SIG steering committee team recognized the importance of staying connected and sharing the great work done by our colleagues. We decided to have a series of webinars to replace this year's annual meeting. The agenda for the August webinars is at the bottom of the page. Webinars are free for SPWLA members and available for a small fee to nonmembers.

JAPAN CHAPTER (Japan Formation Evaluation Society, JFES)

General News

We regret to inform you that we have decided to cancel this year's 26th JFES Symposium due to the unprecedented situation caused by the COVID-19 pandemic. We are looking into the possibility of an alternative online event. Please keep checking for updated information.

Recent Events

16–17 June 2020—JFES provided its first JFES 2020 Distinguished Lectures virtually. On 16 June from 9 to 10 am, "Conventional Sand Counting Workflow Using Borehole Images for Thin Bed Reservoir Characterization" was presented by Yuki Maehara (Schlumberger and JFES Vice President). On 17 June from 9 to 10 am, "Estimating Net Sand from Borehole Images in Laminated Deepwater Reservoirs With a Neural Network" based on SPWLA Symposium Paper 2019_M was presented by Dr. Bo Gong (Chevron). The webinar audience consisted of 71 and 61 viewers (respectively), and lively discussions were held with the speakers post-presentation.

THE NETHERLANDS CHAPTER (Dutch Petrophysical Society, DPS)

Recent News

05 June 2020—The Dutch Petrophysical Society successfully held its first-ever virtual meeting. Bo Gong (SPWLA Distinguished Lecturer) presented her talk, "Estimating Net Sand from Borehole Images in Laminated Deepwater Reservoirs With a Neural Network," to a larger than usual appreciative audience. Many interesting discussions followed the presentation, and we would like to thank the presenter for an excellent job. As part of the meeting, the DPS annual general meeting was conducted. The board presented their review of the year, and the new board members were introduced.

August 05th Session			
Title	Authors	Time	
Comprehensive Model for Microfrac Test and Case Study	Dr. Guoqing, Dr. L. Ehlig-Economides, C. University of Houston. Cedillo, G. and	8:00 AM	
from Deep Water Gulf of Mexico	Wilson Pineda. BP	8:00 AM	
Deep Transient Testing	Dubost, F. Schlumberger	8:30 AM	
August 19th Session			
Title	Authors	Time	
Experimental Study to Understand Formation Damage due	Gonzalez, D., Gramin, P., Haldipur, P. and Pietrobon, M. BP		
to Asphaltene Deposition in a Deepwater Field			
Applications of Wireline Formation Testing: A Technology	Partouche, A., Edmundson, S., Tao, C., Chen, H., Nelson, K., Sawaf, T., Yang, B., Xu,	8:30 AM	
Update	L., Dindial, D., Pfeiffer, T. Schlumberger		

Upcoming events for the Formation Testing SIG in August.

The 2020–2021 DPS Board Members

President	Iulian Hulea (Shell)	
Secretary	Danijela Krizanic (Neptune Energy)	
VP Technology	Chris Harris (Independent)	
VP Communications and Publications and Past President		
	Tom Bradley (Baker Hughes)	
Treasurer	Paul Mast (Staatstoezicht op de Mijnen)	
YP Representatives		
	Adbul Hamid (Energie Beheer Nederland)	
	Jan-Bart Brinks (Schlumberger)	
Social Secretary	Morgane Bizeray (Baker Hughes)	
Regular Board Members		
	Marisa Sitta (Wintershall DEA)	
	Simon Smith (Halliburton)	
	Tarek el-Taraboulsi (Schlumberger)	

Upcoming Events

03 September 2020—The next DPS meeting is provisionally scheduled. For updates on the meeting and for more information about the DPS, visit the DPS website at www. dps-nl.org. If you would like to be informed of upcoming meetings and events, subscribe to the DPS mailing list at www.dps-nl.org/phplist or by emailing info@dps-nl.org.

NORWAY CHAPTER (Norwegian Formation Evaluation Society, NFES)

General News

NFES Annual General Meeting (Årsmøte)/New NFES Board—The annual general meeting was held on Wednesday, 03 June 2020 in the Solastranden Gård prior to the monthly technical meeting, both held under the strict guidelines of the Norwegian health authorities. As per articles of the association, the agenda included a financial review as well the member and sponsorship status report, and revisited the technical meetings, one-day seminar, and field trips.

Following the presentation and approval of the report, both the relief of the past and reconfirmation of the new NFES board took place. The current NFES board consists of:

NFES Board Members

President	Mathias Horstmann (Schlumberger)	20–22
VP Program	David S. Larsen (Baker Hughes)	20–22
VP Membership	Dler Mirza (Aker BP)	19–21
VP Sponsorship	Elin Solfjell (INEOS)	20–22

VP Finance	Torunn Hana (Repsol)	20–22	
VP Public & Academia Relations			
	Sergey Alyaev (NORCE)	20–22	
VP Technology	Sarah M. Birkeland (Equinor)	19–21	

Recent Events

03 June 2020—Since the Norwegian authorities lifted some COVID-19 measures in May, which allowed training sessions to restart, the society met for its monthly meeting for the first time since the lockdown in March. After the annual general assembly, Dler Mirza (NFES VP Membership) kicked off the session at the Solastranden Gård. Due to the current situation, the session was also streamed as a webinar, and many people joined in the forum online. For the first talk after the lockdown and as a highlight prior to the summer break, Dler and the board welcomed Alberto Ortiz (YPF S.A. Argentina and SPWLA Distinguished Speaker) online. The crowd enjoyed an outstanding presentation and session with Alberto, who shared "What We Have Learned From the Petrophysical Evaluation of the Vaca Muerta Formation in the Last 5 Years of Unconventional Shale Play Development." Tusen takk Alberto!



June 2020 NFES Technical Meeting in Stavanger. Mathias Horstmann (NFES President, bottom of photo) welcomes Alberto Ortiz (YPF S.A. Argentina, online in background) awaiting his Distinguished Presentation from the SPWLA Annual Symposium 2019.

PETROPHYSICAL DATA-DRIVEN ANALYTICS SPECIAL INTEREST GROUP (PDDA SIG)

General News

The PDDA SIG held our first machine-learning competition for sonic log prediction. The competition was conducted over a two-month time period. There were over 30 submissions from teams in multiple countries. The top-performing models greatly exceeded our original benchmark model's performance. Many submitted models provided novel approaches to solving the problem of sonic log prediction. The solutions were very well documented and easily followed. We hope this competition will contribute to the petrophysics society for machine-learning applications in synthetic welllog prediction. Members can go to the competition website to check out these creative solutions at https://github.com/ pddasig/Machine-Learning-Competition-2020. We would like to congratulate the winning teams: UTFE, iwave, RockAbusers, StuckAtHome, and SedStrat.

We would also like to thank SparkCognition for its sponsorship and the committee of Yanxiang Yu, Chicheng Xu, Weichang Li, Siddharth Misra, Brendon Hall, Michael Ashby, Yan Xu, and Jefferson O. Osogba for their hard work!

TULSA CHAPTER

General News

It has been an amazing privilege to bring back the Tulsa Chapter of SPWLA. We had a great season with fantastic speakers presenting to the best membership an organization could hope to have. Tulsa Chapter is happy to be back in the saddle again!

We would like to present the new officers for the 2020– 2021 season: James Howard (President), John Stachowiak (Vice President of Technology), and Patrick Ryan (returning Treasurer/Secretary). Please join us in congratulating Tulsa Chapter's new leadership!

The 2019–2020 officers were Elizabeth Dickinson (President), Maureen McCollum (Vice President of Technology), and Patrick Ryan (Treasurer/Secretary).

Recent Events

May 2020—Luncheon meetings transitioned to an online format as we are learning how to do business from remote platforms. The May meeting hosted by Michael Smith (Advanced Hydrocarbon Stratigraphy (AHS)) was so well attended that it had to be rescheduled on a larger platform.

Tulsa Chapter was awarded Best Professional Chapter for the 2019–2020 season by the SPWLA Board of Directors. Words cannot describe the pride felt by our officers and members in receiving this honor. We would like to thank both our membership and the SPWLA Board of Directors for their support throughout this past year. None of this could have been achieved without Tulsa Chapter's amazing membership. Thank you!

Upcoming Events

No upcoming events to announce at this time. Reach out to us with any questions you may have regarding membership in SPWLA, our luncheon meetings, and Distinguished Speakers, or just drop us a message and let us know how you are and what you are doing. We would love to hear from you! SPWLA Tulsa Chapter's email address is tulsa.chapter@spwla.org. You can send a letter to our post office box: SPWLA Tulsa Chapter, PO Box 14495, Tulsa OK 74104-9998.

UNIVERSIDADE FEDERAL DO RIO DE JANEIRO (UFRJ) STUDENT CHAPTER

General News

SPWLA Student Chapter from the Universidade Federal do Rio de Janeiro is composed of 13 active members on its team, who have been dedicated to building an inspiring student chapter.

Student Chapter Members	
Marketing Team	Rodrigo Azambuja
	Amanda Bezerra
	Caio Guedes
Logistics and Events Team	Isabelle Freitas
	Bruno Valle
	Vinicius Jorge
Financial Assistant	Leonardo Ribeiro
Board Members	
President	Teresa Mourão
Vice President	Leticia Cardoso
Treasurer	Sofia D'Orsi
Secretary	Maria Eduarda Verbicário

Recent News

25 June 2020—Lecture on "Advanced Techniques to Optimize Seismic Interpretation Processes" was presented.

Intending to reach the largest audience possible, the Marketing Team of SPWLA UFRJ Student Chapter has created an Instagram account to better promote petrophysics, well log analysis, and correlated knowledge. Since opening the account, we have been sharing information and interesting facts on a weekly basis, such as What Is the SPWLA UFRJ Student Chapter?, What Is Petrophysics?, What Does Profiling Mean?, What Is Permeability?, etc.



SPWLA UFRJ Student Chapter profile on Instagram: https://www.instagram.com/spwla.ufrj/.

Upcoming Events

The Logistics and Events Team has been arranging many webinars to disseminate relevant scientific content despite quarantine measures, including:

07 July 2020—Lecture on "Evaluate the Impact of Fracture Modeling on Fluid Flow" by Carlos Eduardo Seabra (Halliburton). TBD—Lecture on "AVO Analysis to Improve Reservoir Evaluation" by Ricardo Nicácio (Halliburton) and also "Optimized Well Path Planning Decisions in Real-Time Monitoring Operations" by Wilson Ney/Andriele Zambelli (Halliburton).

Paul F. Worthington 1945–2020



Paul Francis Worthington was born on August 8, 1945, in Preston, Lancashire. He attended St Mary's College, Blackburn, and remained proud of his northern English roots throughout his life.

The son of a headteacher and an assistant headteacher, Paul was born into a family of educators. He dabbled with that route himself after graduating with a BS degree in Mathematics and Physics from the University of Hull, UK, teaching for a year at Kilburn Polytechnic in London. It was an unlikely late-night conversation at a house party that introduced him to the field of geophysics, hitherto unknown to him, and that chance encounter set him on the path that defined his academic and professional life.

Thereafter, Paul's academic career took him first to a Master's degree in Geophysics at Durham, then to the University of Birmingham, UK, where he both earned a PhD researching the petrophysics of Britain's second most important aquifer—the Sherwood Sandstone Group—and met Catherine, his wife of almost 50 years.

He started his technical career in the water industry, which led to 5 years in Pretoria, South Africa, during which he became Chief Research Officer with the South African Council for Scientific and Industrial Research, and was awarded a DSc by the University of Pretoria. After his return to the UK, he spent an additional 2 years in the water industry with Howard Humphreys & Partners in Reading, before moving into the oil industry with BP in 1980.

Within BP, he rose to become Head of Formation Evaluation at the BP Research Centre in Sunbury-on-Thames,

England, promoting the study of both the theoretical side of petrophysics and the use of core data to condition the interpretations obtained from well log data, especially those obtained when investigating reservoir rocks that contained appreciable amounts of clay minerals (shaly sands). His main interests were in integrated studies for reservoir evaluation and management and in assimilating data from different measurement scales effectively in formation characterization.

After BP, he joined the petroleum engineering consulting firm, Gaffney, Cline & Associates, based in Hampshire, UK and Singapore, where he concentrated on matters of equity redetermination and reserves estimation.

A prodigious academic and first-rate consultant, Paul was devoted to the pursuit of excellence and to sharing his knowledge for the benefit of the industry. He published more than 100 peer-reviewed papers in the fields of engineering geoscience and petroleum unitization and coedited four books on core and log analysis. More than a few of Paul's papers are considered seminal within their subject areas and must be referenced in any relevant research. After becoming a stalwart member and early President of the local London Chapter in the early 1980s, Paul went on to serve the SPWLA in many roles, including as Director-at-Large (1982–1983), Publications Committee (1981–1984, 1986–1989), Vice President Publications (Editor of Petrophysics) (2006-2007), Petrophysics Associate Editor (1996-2003, 2007-2009), Vice President of Technology (1984-1985), and as President of SPWLA (1985–1986). In addition, he co-chaired four SPWLA topical conferences, and instigated and co-chaired the first Annual Symposium of the Society to be held outside of the USA, in London in 1987, during a downturn in the oil and gas industry. That the event was a technical, social, and financial success was largely down to his drive and vision.

Described by the SPWLA as "one of the giants of the discipline" and one of its "most referenced authors," Paul was the recipient of numerous SPWLA Awards including the society's top honor, the Gold Medal for Technical Achievement (2012), as well as the Medal of Honor for Career Service (2006), the Distinguished Technical Achievement Award (2004), and the Distinguished Service Award (1996). He was also the recipient of the Distinguished Service Award of the Society of Core Analysts.

Outside of SPWLA, from 1986–1992 he served as Chairman of the Downhole Measurements Panel of the International Ocean Drilling Program and was for 10 years a coeditor of *Petroleum Geoscience* for the Geological Society of London. He was also active in the London Section of the Society of Petroleum Engineers, being a guest speaker from time to time at their monthly meetings.

Paul's determination was legendary, stretching into all aspects of his life. As a young man, he was a football (soccer)

In Memoriam

goalkeeper of formidable reputation and became a lifelong fan of Manchester United. Wherever in the world he traveled, he would always go to great lengths to do two things—watch the Red Devils' latest match and attend Mass.

As both a scientist and a committed Christian, the Catholic faith played a huge role in Paul's life. He was an active parishioner in the parish of St Francis, Ascot, for almost 40 years, where he taught the children's liturgy, was a regular reader, and edited the parish magazine. In later life, he was honored to be invited to become a Knight of the Holy Order of the Equestrian Sepulchre of Jerusalem.

Paul continued his pursuit of learning and education right until the end. His final academic achievement was consolidating the legal side of his unitization experience into an LLM by Research at the University of Reading, UK. Paul completed his thesis the day before he was diagnosed with the illness that ultimately claimed his life. He spent the last weeks of his life finalizing the thesis for publication, and his final legacy, *The Law on Petroleum Unitization*, was published in May 2020, the month of his death.

Paul is survived by his loving wife Catherine, his children Michelle, Mark, and Tim, and his four grandchildren.

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