# **SPWLA Houston Chapter Newsletter**

**SPWLA 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



#### **President's Corner**

Dear fellow members of the Houston Chapter,

Time flies, and we are already in Q2 of 2023. The 2022-24 SPWLA-Houston Chapter board is continuously successful in securing seminars for the petrophysical community in Greater Houston.

March was, in particular, busy with three seminars, of which two were on CCUS. Olga's presentation was in Downton on full waveform inversion of Fiber optic VSP data. I have to say "DAS" has a new meaning in my vocabulary – other than "Das Keyboard."

April had a full house at the Northside seminar on using NMR in tight rocks, unconventional and shale formations.

Networking events were held consistently on the last Thursday of each month from 5:08 pm – 8:08 pm at the Cedar Creek location. The event on the 23. February had sponsorship from Canamera and an anonymous private sponsor – thank you! Please reach out to a board member if you already have a month you would like to become a sponsor – the next event is on the 25th of May.

The biggest upcoming event is the 64th annual SPWLA symposium in Conroe 10th-14th of June. Please help reduce the stress level of the hard-working SPWLA international team by registering at <a href="www.spwlaworld.org">www.spwlaworld.org</a> TODAY. Take advantage of special hotel room pricing and secure a spot at the spectacular social evening events planned before they run out of space.

Please reach out to one of the board members if you have a topic you like to share via one of our seminars or to become more involved in our activities and give us a helping hand.

Personally, I am grateful for having such an active board that makes it fun to keep serving the Houston Petrophyscial community.

See you at the 64th annual SPWLA conference in Conroe 10th-14th of June! Bernd Ruehlicke

www.spwlaworld.org





Bernd Ruehlicke

Houston Chapter President
president@spwla-houston.org

## **Useful links**

Sign up for the Houston Chapter Mailing List [Link]

**Houston Chapter** 

**SPWLA International** 

Join SPWLA – become a member

Houston Chapter LinkedIn page

# **Upcoming Seminars**

#### **Seminar Downtown Houston:**

Using NMR To Characterize Fluids In Tight Rock Unconventional And Shale Formations

**Speaker: Boqin Sun(Chevron)** 

Seminar Date: April 26 2023

**Time:** 11:30 PM - 01:00 PM (US CDT)

Admission/Registration Link: <a href="https://spwla-houston.org/seminar-detail.php?id=61">https://spwla-houston.org/seminar-detail.php?id=61</a>

Contact: Amer Hanif (VP Northside, SPWLA Houston Chapter)

Corresponding: vpnorthside@spwla-houston.org

Fees: FREE

#### **ABSTRACT:**

Petrophysical characterization and quantification of OOIP/OGIP and producibility in tight rock unconventional (TRU) and shale reservoirs remains challenging. The porosity system of these reservoirs is dominated by nano and micro pores, while the matrix system is formed by the mixture of regular shale and kerogen with different maturities. Therefore, the total porosity in an unconventional reservoir is often less than 10PU (porosity unit, or percentage of total volume), and the permeability ranges from nano to micro-Darcy. Storage and transport of hydrocarbon varies with the percentage and maturity of the organic material in TRU and shale formations and impacts up to 20% of OOIP/OGIP. Evaluation of porosity, saturation, and matrix permeability from conventional logs becomes very difficult and often requires many core measurements to correctly define the rock and pore system. Routine NMR workflows for characterizing conventional reservoirs cannot directly be used to derive petrophysical properties in TRU formations. Through laboratory NMR core analysis and NMR logging field trials in various TRU and shale reservoirs, we have developed a new NMR shale interpretation workflow that focuses on (1) obtaining high-quality raw echo data by optimizing data activation sequences for TRU and shale formations, (2) improving the data processing scheme by enhancing T2 resolution to separate different fluid components in T2 distributions, (3) adapting a new fluid typing method that only involves clay-bound water and capillary bound fluids, part of which is also producible, and (4) using NMR core analysis to verify the cutoff and T1/T2 ratio trend to improve fluid identification in TRU and shale reservoirs. The workflow has been successfully applied to evaluate petrophysical properties in the Marcellus and Vaca Muerta formations. It reduces the uncertainty of total porosity and free fluid volume (FFV) and identifies fluid types and sweet spots.

#### **BIOGRAPHY:**

**Boqin Sun** is a Chevron Fellow and a research consultant at Chevron Technology Center. He joint Chevron in 2001 and has been working on various NMR applications in solution, solid, and petrophysics. He received a BS from Zhejiang University in 1982 and a MS from Wuhan Institute of Physics in 1985, both in Physics, and a PhD from UC Berkeley in 1991 in Chemistry. Previously he worked as NMR tool physicist for Schlumberger at Sugar-Land product center for four years. Before that, he was a Postdoctoral Associate at MIT.

# **Networking Happy Hour**

Thursday, April 27 2023, 5:07PM-8:08PM

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. Don't miss this opportunity to connect with others in the SPWLA community. We look forward to seeing you there!

### **Recent Events**

#### **SPWLA Houston Chapter Jun Lunch Seminar**

On March 1<sup>st</sup>. Houston Chapter Downtwon hosted a lunch seminar titled "CCUS in Mature Fields: How Core-to-Log Data Driven Analytics Enhances Mechanistic Models for the Purpose of Reservoir and Caprock Mineralogical Characterization," presented by Marco Pirrone (Eni HQ).

On March 14. Houston Chapter Downtown hosted a lunch seminar titled "Full Waveform Inversion of Fiber Optic VSP Data from Deviated Wells," presented by Olga Podgornova (SLB).

On March 30. Houston Chapter westside hosted a lunch seminar titled "Challenges and Opportunities in Large-Scale Carbon Capture Storage (CCS)," presented by Zach Liu (WOOD.).

#### **NETWORKING EVENT**

On Feb 23,2023, and March 30, we hosted two in-person social networking events. SPWLA Houston Chapter appreciates **CANAMERA** for sponsoring the Chapter Networking event on March 30 @ Cedar Creek. The whole SPWLA community was invited. That 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 networking event last Thursday monthly from 5:07 pm - 8:08 pm at the same location to make it easier to remember.



We hope to see y'all there next time!

More details available in 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 always tuned!

# **Photos**





Olga Podgornova (SLB) made a presentation about DAS data processing at Houston chapter lunch seminar.



Artur Posenato Garcia, the Vice President of the Downtown Houston Chapter of SPWLA, warmly greeted the speaker and presented a gift as a token of appreciation.



At the Houston Chapter Westside lunch seminar, Zach Liu from Wood discussed the challenges and opportunities in carbon capture storage.



The event was well-attended with a full house. Zach's informative presentation was followed by an engaging Q&A session. Neal Cameron, the Vice President of the Houston Chapter Westside, warmly greeted Zach Liu.







Houston chapter Networking time with guests. Happy to have current and past SPWLA international board members joing our event. A huge thanks to CANAMERA for sponsoring the SPWLA Houston Chapter Networking event on March 30.





The Houston Chapter will host the networking event 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!