

ACE 2020

7-10 JUNE
HOUSTON

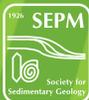
INCORPORATING
— THE SEPM —
ANNUAL MEETING

AAPG ANNUAL CONVENTION & EXHIBITION



Call for Abstracts

In conjunction with:



ACE.AAPG.org

Call for Abstracts Open – Submit Today!

Submission Deadline: 26 September 2019

Submit your papers today for the AAPG 2020 Annual Convention and Exhibition (ACE) at the George R. Brown Convention Center in Houston, Texas held 7–10 June. Your research, knowledge, and expertise are what helps our geoscience community navigate towards a successful future.

The Technical Program Committee invites you to submit abstracts under the theme/subthemes that have direct application to the industry. In particular, abstracts that deal with the hottest, most relevant play areas, both domestic and international, are most desirable. The committee also encourages case studies that illustrate the successful implementation of new techniques and technologies. In addition, student participation is a priority – AAPG ACE is an invaluable opportunity to showcase graduate research that advances the industry.

Theme Descriptions and Subthemes for ACE 2020 Technical Program

Theme 1: Siliciclastic Systems

Theme 1 will showcase siliciclastic sedimentary plays, reservoir architectures, and facies distributions ranging from pore- to basin-scale. Emphasis will be placed on practical applications and novel techniques and workflows for understanding sedimentary systems, and how these add value in exploration and development.

Subthemes:

- ▶ Source-to-sink and basin analysis
- ▶ Continental sedimentary system dynamics
- ▶ Paralic and shallow marine sedimentary system dynamics
- ▶ Deepwater sedimentary system dynamics
- ▶ Controls on reservoir quality and rock property trends
- ▶ Innovative workflows to determine age, provenance and paleoclimate
- ▶ New advances in mature basins
- ▶ Sedimentation and tectonics - evolving accommodation in complex basins

Theme 2: Carbonates, Evaporites, and Mixed Systems

Carbonate reservoirs hold more than half of the world's hydrocarbon reserves. Theme 2 will explore all aspects of carbonate reservoirs and applicable analogs including deposition, diagenesis, reservoir models, and pore networks.

Subthemes:

- ▶ Linking systems: carbonates, source rocks, and extrinsic controls on their occurrence
- ▶ Characterizing and modeling non-matrix porosity and permeability (fractures and karst) in carbonate reservoirs
- ▶ Matrix-dominated pore systems: rock properties and reservoir performance
- ▶ Modeling carbonate diagenesis for reservoir quality prediction
- ▶ Permian Basin source-to-sink sedimentology and stratigraphy
- ▶ Cretaceous carbonates of Gulf of Mexico petroleum systems
- ▶ Stratigraphically mixed systems
- ▶ Microbial carbonates - modern and ancient analogs for pre-salt deposits
- ▶ Depositional models for carbonate and evaporite systems

Theme 3: Geochemistry, Basin Modeling, and Petroleum Systems

Geochemistry and basin modeling provide the means to describe the evolution of the petroleum system in both conventional and unconventional plays. Theme 3 will showcase new methodologies and integrated workflows in geochemistry and basin modeling, applications for reservoir characterization, production optimization and hydrocarbon and non-hydrocarbon risk assessment.

Subthemes:

- ▶ Petroleum geochemistry in reservoir characterization and production optimization
- ▶ Geochemistry applications in petroleum system definition
- ▶ New or developing methodologies in geochemistry
- ▶ Integrated work flows in basin modeling
- ▶ Fluid-rock & fluid-fluid interaction
- ▶ Hydrocarbon migration and charge risk assessment
- ▶ Non-hydrocarbon gases risk assessment

Theme 4: Structure, Tectonics, and Geomechanics

Theme 4 spans all aspects of structural geology and geomechanics from exploration to abandonment. Presentations will showcase new approaches and case studies illustrating how the application of structural geology and geomechanics leads to increased reserves, improved production, lower cost and reduced risk.

Subthemes:

- ▶ Petroleum geomechanics: exploration to abandonment
- ▶ Understanding the impact of natural and induced fractures
- ▶ Modeling deformation: analogue, geometric and numerical approaches
- ▶ Petroleum system tectonics and structural styles: lithosphere to thin section
- ▶ Salt-involved systems: deposition to diapirism to dissolution
- ▶ Structural geology and geomechanics in unconventional reservoir development



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Theme 5: Unconventional Resources

Unconventional resources have dominated growth in production over the decade and have radically changed global oil markets. Our scientific understanding of these plays has also grown exponentially. Theme 5 presentations will span broad geographies and highlight advances in understanding petroleum systems and kinetics, mobility, reservoir fluid prediction and phase behavior, reservoir facies and quality, petrophysics, pore systems, and integration of geoscience with completions and development.

Subthemes:

- ▶ Advances in unconventional reservoir characterization
- ▶ Advances in analytical techniques in unconventional
- ▶ Evolution of the organic and inorganic matrix in unconventional reservoirs
- ▶ Permian Basin: advances in understanding geologic evolution and unconventional reservoir development
- ▶ The Eagle Ford Shale – Austin Chalk play
- ▶ Unconventional plays of the Appalachians, Midcontinent and Rockies
- ▶ Global emerging unconventional plays

Theme 6: Energy Sustainability and the Environment

Theme 6 will showcase the science of an array of topics and issues that are critical for the future of energy and the environment. Topics for this theme will address best practices in the energy sector to meet new regulations, global energy demands, public opinion, and environmental challenges and solutions.

Subthemes:

- ▶ Putting CO2 to work in EOR and carbon capture, utilization, and storage (CCUS)
- ▶ Carbon lifecycle linkages: sources, sinks and economics
- ▶ Applications of carbon storage learnings to subsurface characterization and hazard assessments
- ▶ Water management: source, recycle, disposal and valuation
- ▶ Environmental Impact – remediation and mitigation
- ▶ Progress in understanding induced seismicity

Theme 7: Geophysics – What's New and Innovative?

Theme 7 will explore new advances in geophysics at all scales and the integration of geophysical, petrophysical, and non-seismic methods to maximize returns from existing fields, explore for new opportunities, and exploit tight reservoirs.

Subthemes:

- ▶ Advances in geophysics of unconventional
- ▶ Geophysics and remote sensing applications in exploration
- ▶ Seismic techniques in geological characterization
- ▶ Integration of geologic, geomechanical and geophysical observations and models
- ▶ Seismic imaging in the Gulf of Mexico
- ▶ Laboratory and numerical experiments in geophysics
- ▶ Integration of geology and geophysics into reservoir models

Theme 8: Deep Integration of Data and Disciplines

Theme 8 focuses on how data enables, empowers, and challenges geoscience and business workflows. The theme will highlight the changes that new data methods (big data, data science, AI, etc.) have brought and how they create value, improve efficiency, and enhance collaboration.

Subthemes:

- ▶ Successes and challenges on data integration for multi-disciplinary workflows
- ▶ Sniffing out the hydrocarbons in complex datasets
- ▶ Above-ground imagery to solve business challenges
- ▶ The new data management: Communicating lineage, quality, and quantity to enable data science workflows
- ▶ Machine learning – new geological insights from existing data in resource plays
- ▶ Open source and open access
- ▶ Data visualization challenges
- ▶ Industry 4.0 and The Future of Oil and Gas

Theme 9: Expanding Energy Frontiers on Earth, Moon, and Mars

Theme 9 represents the domain of greatest uncertainty faced by the energy industry – where to invest long term, what disruptions may await, what technologies may be truly transformational, how will energy systems and minerals be coupled in the future?

Subthemes:

- ▶ Developing energy and resources on the Moon, and Mars
- ▶ Analysis of gas hydrate systems using production testing and characterization
- ▶ Exploration and extraction of critical minerals for energy storage
- ▶ Advances in geothermal exploration and production
- ▶ Emerging plays in helium, hydrogen, uranium, and other energy minerals

Theme 10: Commercial Skills and Regulatory Framework

Theme 10 considers the financial underpinning of our industry and how resource estimation, risking, deal making, efficiency drivers, and investment decisions shape our future.

Subthemes:

- ▶ Resource estimation and investment risk in onshore and offshore plays
- ▶ Role of innovation in driving capital efficiencies
- ▶ Integration of disciplines supporting investment decisions: Geoscience, engineering and economics
- ▶ US onshore/offshore and international deal making
- ▶ Economics of addressing perspectives and policy of climate change
- ▶ Navigating regulatory and legal challenges
- ▶ Diversity and Inclusion

Theme 11: SEPM Research Symposium

The 2020 Society for Sedimentary Geology (SEPM) Symposium will bring together a diverse group of dynamic speakers to present forward-looking research addressing the role of sedimentary geosciences. Traditional oral presentations will be accompanied by poster sessions.

Theme 12: History of Petroleum Geology

Theme 12 will showcase the evolution of major technical breakthroughs in petroleum exploration and production since the founding of the AAPG over the last 100 years, and how people of the AAPG and sister societies around the world have affected the evolution of these breakthroughs.

Theme 13: AAPG and SEPM Student Research

Undergraduates, Graduate, and Doctoral students are encouraged to submit their research to the AAPG and SEPM Student Research Poster Sessions.

AAPG's Student Research Poster session is sponsored by Shell. After the abstracts are reviewed and scored, the top 15 abstracts are selected for this session. The session will be held on Monday, 8 June 2020 and the Best Student Poster awards (ranking from 1st to 4th) will be awarded on Monday night at the Student Reception. The 15 student poster presenters are awarded a \$200 travel grant.

AAPG Student Oral Presentations are also sponsored by Shell. The top 15 highest scored student oral presentations within the technical program will be selected and judged for Best Student Oral Award. The presentations are judged (ranking from 1st to 4th) and will be awarded after the convention. The 15 students selected will also receive the \$200 travel grant.

SEPM's Student Research Poster session will also be held on Monday, 8 June 2020. SEPM will also select the top scoring abstracts for their session. The number of abstracts accepted is determined by SEPM's Executive Director and SEPM Foundation President. SEPM awards the top three presentations for a \$500 cash prize based on the judging committee reviews which are awarded at the SEPM President's Reception on Tuesday evening.

Both AAPG and SEPM will create as many additional student poster sessions from the highest scored abstracts as space allows. The additional student poster sessions will be eligible for the Braunstein Award (Best Poster).

Students are also encouraged to submit to any of the theme and subthemes within the technical program.

Top Reasons to Submit

1. Share your knowledge and expertise

Use ACE as platform to share the latest science, research, and innovations. Geoscientists from around the world are looking to you for answers and solutions to challenges facing exploration and beyond.

2. Promote the geosciences

Help guide the future of our geosciences community. As a speaker you will be directly advocating for the development of processes, technologies, and methods that continue to advance the science of petroleum geology.

3. Build your resume

If you are looking for another reason to add to your resume, here's your chance. Aligning yourself with AAPG's 100+ years of credible science and history makes a great addition to your resume.

4. Expand your network

Face-to-face networking at ACE is one of the most effective ways to build strategic business relationships and establish new contacts. Take this opportunity to expand your contacts and be seen as a leader in your field.

5. Get published

Having your abstract selected means you'll be included in an internationally established online journal for geoscientists in the AAPG Datapages Search and Discovery

6. Improve your public speaking

Not everyone enjoys giving presentations. Use this opportunity to surround yourself with peers and other industry experts to practice your public speaking skills.

Submit Your Abstracts

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26 September 2019**

For more information please contact:

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