

EAGE

EUROPEAN
ASSOCIATION OF
GEOSCIENTISTS &
ENGINEERS



First EAGE Workshop on Pre-Salt Reservoir: from Exploration to Production

5-6 DECEMBER 2019 • RIO DE JANEIRO, BRAZIL

- **Final Announcement and Technical Programme**

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ABOUT THE WORKSHOP

We are excited to announce the First EAGE Workshop on Pre-Salt Reservoir to be held in Rio de Janeiro, Brazil on 5-6 December 2019. Since their discovery in 2005, pre-salt carbonate reservoirs in deepwater Brazil have become a very important source to sustain the supply of hydrocarbons. By now they constitute the largest component of resources along the Atlantic margins, with several world-class fields that have been developed by Petrobras and partners, including the giant Lula field which is approaching a production of 1 mln b/d. While these reservoirs are very extensive and prolific, they face unique challenges associated with the definition of the regional limits of the petroleum system in a still active exploration environment, and with the improvement of recovery factors of the ongoing production projects. The huge hydrocarbon volumes associated with pre-salt reservoirs and the high required investments are forcing companies to search, customize and apply leading edge technologies. Consequently, it is paramount to understand reservoir depositional systems, petrophysical properties, and seismic imaging issues to increase the efficiency of exploration activities, and likewise reservoir engineering and production technology aspects to maximize recovery and optimize production. The workshop will update on the latest ideas, technologies and industry practices from locating and characterizing the reservoir, to developing the field to maximize drainage, to managing production to optimize recovery, in the context of the industry challenges in deepwater Brazil. It will be an ideal venue to exchange experiences through networking and dynamic discussions on foundational aspects, best practices and case studies. The EAGE calls upon geoscientists and engineers interested in characterizing, planning, executing and evaluating pre-salt reservoir projects to contribute to the technical programme.

SPONSORING

Lanyards



Ice Breaker Reception



Ice Breaker Reception and Coffee Points



IMPORTANT DATES

25 November 2019	Regular Registration Deadline
04 December 2019	Late Registration Deadline
05-06 December 2019	Workshop

WORKSHOP PROGRAMME OVERVIEW

05 December 2019

06:00-17:00	Registration
08:20-17:00	Technical Programme
12:30-13:30	Lunch
17:10-18:00	Poster Session
18:00-20:00	Ice Breaker Reception

06 December 2019

08:00-16:50	Technical Agenda
12:20-13:20	Lunch
17:10	Workshop Review and Closure

CATERING

Coffee/Tea breaks and lunches are included in the registration fee, the coffee/tea breaks will be served in the foyer. Lunches will be served in the hotel's restaurant.

SOCIAL PROGRAMME

Ice Breaker Reception

Thursday 05 December 2019 18:00

Venue: JW Marriott Terrace

TECHNICAL PROGRAMME

Oral Presentations | Thursday 5 December

FOYER	
06:00	Registration
08:20	Welcome and Aims - Jorge López (Shell) and Marcos Fetter (Petrobras)
Session I Session Chair Jorge López (Shell)	
08:30	The importance of Geosciences in the Brazilian Pre-Salt Development - Keynote Speech - Carlos H.L Bruhn (Petrobras)
09:00	An Example of Applying Geostatistical Inversion to Inform Reservoir Quality Distribution, Pre-Salt Santos Basin, Brazil - J. Utley ^{1*} , K. Miller ¹ , E. Pederson ¹ , M. Bowen ¹ , A. Bucki ¹ , K. Basler-Reeder ¹ , G. Jones ¹ , B. Laugier ¹ , E. Hixon ¹ , R. Wenger ¹ , M. Ibrahim ² , J. Zubizaretta ² ¹ ExxonMobil; ² CGG
09:20	A Very Different Barremian-Aptian Lacustrine Pre-Salt Facies Association: Biotic Self-Organization In BMC-33, Outer Basin Campos Basin, Brazil - D.W. Hunt ^{1*} , P.H. Vieira de Luca ³ , L.E. Gomis-Cartesio ² , F. Lapponi ¹ , I. Masiero ¹ , A. Waldum ¹ , A. Stuart Chandler ¹ , J.L. De Lima Matias ² , C. Hess ² , J. Fonseca ⁴ , L. Loures ² , I. Søreide ^{1,2} ¹ Equinor; ² Equinor; ³ Repsol-Sinopec; ⁴ Petrobras
09:40	Understanding the relationship between acoustic impedance and porosity in the presalt of the Buzios Field, Santos Basin - R.M. Dias ^{1*} , T.M. Castro ² , M.A.C. Santos ¹ , W.M. Lupinacci ¹ ¹ Departament of Geology and Geophysics (GIECAR) - Universidade Federal Fluminense; ² Schlumberger
10:00	Discussion Session
10:20	Coffee Break AM
Session II Session Chair Marcos Fetter (Petrobras)	
10:50	Non-marine carbonate reservoir architecture, genesis and petrophysical characterisation from analogues - Travertines, Shrubs, Laminites and Spherulites - H. Claes ^{1*} , J. Soete ² , M. Marques Erthal ³ , Á. Török ⁴ , Z. Mohammadi ² , C. Aratman ⁵ , T. Siqueira de Miranda ⁶ , A. Mancini ⁷ , E. Capezzuoli ⁷ , J. Schmatz ⁸ , J. Aguillar ⁹ , L. Zieger ¹⁰ , R. Swennen ² ¹ CIM, RWTH Aachen University; ¹⁰ LEK, RWTH Aachen University; ² KU Leuven University; ³ Petrobras Research Center; ⁴ Eötvös Lorand University; ⁵ Pamukkale University; ⁶ Federal University of Pernambuco; ⁷ University of Florence; ⁸ MaP - Microstructure and Pores; ⁹ Universidade Federal do Rio de Janeiro
11:10	Bayesian elastic facies inversion applied to Lula field - L. Passos de Figueiredo ^{1,3*} , B. B. Rodrigues ² , E. C. Mundim ² , M. Roisenberg ¹ , D. Grana ⁴ ¹ UFSC; ² Petrobras; ³ LTrace; ⁴ University of Wyoming
11:30	Structural cross-section restoration and its applications in reservoir quality prediction in pre-salt Santos basin - A.P. Pelosi ¹ , M.R. Fetter ^{1*} , F. Garcia Domingues da Costa ¹ , F. Rostirola de Sá ¹ ¹ Petrobras
11:50	Improved Structural Imaging and Amplitude Fidelity through FWI and LS-RTM for Pre-Salt Reservoir Characterization - Y.H. Cha ^{1*} , J. Sun ¹ , T. Vdovina ¹ , C. Marcinkovich ¹ , V. Brytik ¹ , R. Lu ¹ , S. Lazaratos ² , V. Singh ³ , I. Dura-Gomez ² ¹ ExxonMobil Upstream Research Company; ² ExxonMobil Upstream Integrated Solutions; ³ ExxonMobil Upstream Oil & Gas
12:10	Discussion Session
12:30	Lunch
Session III Session Chair Gustavo Catao (Petrobras)	
13:30	Multiscale Carbonate Core Analysis: from Laboratory to Field - Keynote Speech by Paulo Couto (UFRJ)
13:50	Pre-Salt Seismic Monitoring (4D): Considerations About Time-Shifts - V. Mello ^{1,2*} , M. Grochau ¹ , A. Martini ¹ , V. Almeida ¹ , L. Teixeira ^{1,3} , C. Deplante ² , W. Lupinacci ³ ¹ Petrobras; ² JPT Libra; ³ Universidade Federal Fluminense

14:10	Improving pre-salt image with reflection full-waveform inversion in Santos Basin - W. Kang ¹ , M. Ortin ¹ , J. Monteiro ² , M. Fagundes ² , O. Zdraveva ¹ , D. Vigh ¹ , M. Shadrina ³ ¹ Schlumberger; ² Schlumberger; ³ Schlumberger
14:30	Regional 3D Seismic Value in Exploration Workflows: Campos and Santos Basins, Brazil - A.K. Hartwig ^{1*} , J. Faw ¹ , B. Horn ¹ ¹ ION Geophysical
14:50	Discussion Session
15:10	Coffee Break PM
Session IV Session Chair Diego Gracioso (Shell)	
15:30	Timing of Pre-Salt Faulting and its Impact on Reservoir Architecture at the Sao Paulo Plateau, Santos Basin, Brazil - H. Lebit ¹ , S. Arasanipalai ¹ , P. Ollagnon ¹ , A. Alcludia-Leon ^{2*} ¹ PGS; ² PGS
15:50	Infield enhanced fast track pre-stack depth migration in the Campos basin; a case study - T. Johnson ² , C. O'Reilly ^{2*} , R. Bartlett ¹ , T. Brice ¹ , J. Pollatos ¹ ¹ Shearwater; ² TGS
16:10	Geopressure, Reservoir Properties and Advanced Geochemistry Analyses Along Pre-Salt in Santos and Campos Basins: From Oil Fields to Frontier Areas - S. Rostirola ^{1*} , M. Mello, H. Kemna, W. Peres, O. Pedrosa, T. Nascimento ¹ BPS
16:30	The Carcará Project – From discovery to development - L.J. Hansen ^{1*} ¹ Equinor Brasil
16:50	Discussion Session
Poster Session	
18:00	Ice Breaker Reception

Oral Presentations | Friday 6 December

FOYER	
Session IA Session Chair James Miller (Exxon Mobil)	
08:00	Pre-Salt Carbonate Reservoir Challenges-Back to the Rocks - Keynote Speech - Joachim J. Amthor (Shell)
08:30	Geologically informed digital rock-physics workflows for improved reservoir characterisation and modelling of pre-salt carbonate reservoirs. - S. Geiger ^{1,3*} , R. Wood ^{2,3} ¹ Heriot-Watt University; ² University of Edinburgh; ³ International Centre for Carbonate Reservoirs
08:50	- Excess permeability in the Brazil pre-salt: non-matrix types and diagnostic indicators - F. Fernandez-Ibanez ^{1*} , M. Bowen ² , G. Jones ² , J. Mimoun ² ¹ ExxonMobil Upstream Research Company; ² ExxonMobil Upstream Integrated Solutions
09:10	The Fantastic Microbialite Reservoirs in Santos and Campos Basins: Depositional Models, Crustal Inheritance Control on the Petroleum System and Risks Associated for Commercial Discoveries. - P. Zalan ^{1*} ¹ UOL
09:30	Multiscale Modeling of Flow in Paleo-Karst Reservoirs - M. Murad ^{1*} , A. Rocha ¹ , T. Lopes ¹ , P. Pereira ¹ , F. Bezerra ² , C. Cazarin ³ , I. Coimbra ¹ , E. Garcia ¹ ¹ Laboratório Nacional de Computação Científica; ² Universidade Federal do Rio Grande do Norte; ³ Cenpes/Petrobras
09:50	Discussion Session
10:10	Coffee Break AM
Session IIA Session Chair Santiago Drexler (Halliburton)	
10:40	NMR-based Segmentation of a Coquina Sample for Digital Petrophysics - W. Godoy ^{1*} , E.M. Pontedeiro ^{1,2} , F. Hoerle ¹ , A. Raouf ² , M. Van Genuchten ² , P. Couto ¹ ¹ COPPE - UFRJ - Civil Engineering Program; ² Utrecht University

11:00	Forecasting geomechanical behaviour in pre-salt fields - D. Roehl ^{1,2*} , R. Quevedo ² , P. Firme ^{1,2} ¹ Civil and Environmental Engineering Department – PUC-Rio; ² Tecgraf Institute – PUC-Rio
11:20	Salt Geomechanics and Seismic Velocity Models - J. Herwanger ^{1*} , A. Bottrill ¹ , M. Oristaglio ² ¹ MP Geomechanics; ² SEG SEAM
11:40	Detecting ahead of bit in a vertical well - D. Larsen ^{1*} , J. Xavier ¹ , S. Martakov ¹ , J. Gripp ¹ , R.B. Cremonini ¹ , A. Pierre ¹ , A. Hinkle ¹ , N. Tropin ¹ , M.V. Sviridov ¹ , T. Lagarigue ¹ , Y.E. Antonov ¹ , A. Hartmann ¹ ¹ Baker Hughes
12:00	Discussion Session
12:20	Lunch
Session IIIA Session Chair Marcos Fetter (Petrobras)	
13:20	Challenges, improvements and optimizations in drilling and evaluation in pre-salt Brazil Keynote Speech by Enrique Estrada (Halliburton)
13:40	Innovative Imaging Technology to Unlock Presalt Reservoir Characterization - S. Arasanipalai ^{1*} , H. Lebit ¹ , A. Valenciano ¹ ¹ PGS
14:00	Exploratory-scale OBN seismic acquisition in Santos Basin - D. Ferreira ^{1*} , A. Martinez ¹ , C. Costa ¹ , F. Jouno ¹ , A. Khalil ¹ ¹ CGG
14:20	Towards Efficient Ocean Bottom Seismic Acquisition in Pre-Salt Brazil - J. Lopez ^{1*} , G. Baeten ² , F. Ten Kroode ² ¹ Shell Brasil; ² Shell Global Solutions International B.V.
14:40	Discussion Session
15:00	Coffee Break PM
Session IVA Session Chair Jeffrey Lukasik (Equinor)	
15:30	A Workflow for Multimineralogic Carbonate Rock Physics Modeling in a Bayesian Framework - J. Dias ^{1*} , J. Lopez ² , R. Velloso ³ ¹ UFRJ/LAGESED; ² Shell Brasil Petróleo Ltda.; ³ PUC-Rio
15:50	Fast Model Update and Scenario Based Modelling for Decision Making in a Fast Track Pre-Salt Development - G. Saka ^{1*} , I. Troth ¹ , C. França ¹ , F. Ramalho ² , S. Hoffman ² , J. Tollefsrud ² , V. Haugse ¹ , D. Torres ¹ , L. Hansen ¹ ¹ Equinor Brasil; ² Equinor ASA, Oslo
16:10	Challenges in Brazil pre-salt carbonate reservoir characterization: a realistic 3D synthetic study - H. Wang ^{1*} , O. Burtz ¹ , R. Parth ¹ , Y. Yu ² , B. Curry ² , E. Hixon ³ , B. Laugier ³ ¹ ExxonMobil Upstream Research Company; ² ExxonMobil Upstream Integrated Solutions; ³ ExxonMobil Upstream Oil and Gas Company
16:30	Porosity characterization of complex silicified carbonates reservoirs of BM-C-33 - P.H. Vieira de Luca ^{1*} , A. Waldum ² , A.S. Chandler ² , D. Hunt ² , O.P. Wennberg ² , G. McQuenn ² , D. Hulme ² , E. Castro ³ , L. Loures ³ , J.L.D.L. Matias, I. Søreide ² , A.M.D.C. Filgueiras ⁴ ¹ Repsol Exploration; ² Equinor; ³ Equinor; ⁴ Repsol Sinopec Brasil
16:50	Discussion Session
17:10	Workshop Review & Closure

REGISTRATION

All fees are in Dollars (USD). One Dollar of your total registration fee is donated to the EAGE Green Fund.

REGISTERED AND PAID	EARLY DEADLINE 1/01/19 - 25/10/19	REGULAR DEADLINE 26/10/19 - 25/11/19	LATE DEADLINE 26/11/19 - 04/12/19
EAGE Green Member ^{1,5}	\$495	\$510	\$535
EAGE Bronze/Silver/Gold Members ^{1,5}	\$470	\$495	\$520
EAGE Platinum Member ^{1,5}	\$495	\$495	\$495
Non-Member	\$555	\$570	\$595
EAGE Student Green Member ^{1,2,5}	\$155	\$165	\$175
EAGE Bronze/Silver/Gold Student Members ^{1,2}	\$125	\$135	\$150
Student Non-Member ^{2,3,4}	\$185	\$195	\$205

Members please note: To qualify for the member registration fee, your EAGE membership dues for 2019 must have been paid and confirmed. The processing time for membership applications or renewals is around 10 working days.

To qualify for the reduced student registration fee:

- Students must be enrolled in a full-time study programme at a recognized university or institute.
- The registration must be accompanied by a copy of a student ID card and/or official proof of enrollment.

The non-member fee includes EAGE membership for the remainder of 2019.

This membership will be activated shortly after the conclusion of the event.

Student non-members cannot be older than 34 years of age (when registering).

Green membership status gives you a \$60 USD discount (\$30 USD for students) on the Non-Member fee for each EAGE event registration; starting from Bronze status, you can benefit from an even greater reduced EAGE member registration fee.

EAGE reserves the right to cancel the event due to low participation.

All registration prices and deadlines are subject to change without notice. However,

registration prices of paid registrations are guaranteed at the rate of the time of registration.

Please visit the relevant event website for the up-to-date registration information.

VENUE

The Workshop will be held at the JW Marriott in Copacabana. EAGE is not responsible for the booking of the rooms, each attendant should contact the hotel. The special fee will be given to participants.

JW Marriott Copabana

Av. Atlântica, 2600 - Copacabana, Rio de Janeiro - RJ, 22041-001, Brazil
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VISA

For any help about invitation letters send an e-mail to americas@eage.org

CONTACT

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