6th EPIC Conference
November 11-12th, 2024

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Welcome to the 6th EPIC Conference!

In 2024, we celebrate the 6th edition of the EPIC Conference, our annual event dedicated to showcasing our latest research findings in Oil and Gas production. This year marks the beginning of EPIC's Phase 2, which launched in December 2023. Phase 2 introduces a new research line focused on integrating knowledge from EPIC's three original research areas to propose comprehensive solutions.

At this conference, attendees can look forward to engaging keynote speeches and insightful roundtable discussions led by distinguished experts from both industry and academia. We invite all participants to join us in exploring some of the latest research findings in Energy Production and Innovation.

We wish you an enriching conference experience,

EPIC's team

Conference Venue

The 6th EPIC Conference will take place at the auditorium of the **Eldorado Research Institute** *(Instituto de Pesquisas Eldorado*, in Portuguese*),* located at Av. Alan Turing, 275 - Cidade Universitária, Campinas – Brazil.

Open route in your device

Day 1: November 11th

🕐	Session	Speaker
8:30	**Registration**	
9:00	Welcome and Safety Moment	Murilo de Medeiros (Equinor)
9:10	Opening Ceremony	Prof. Denis J. Schiozer (EPIC/Unicamp) Andrea Achoa (Equinor) Prof. Dr. Rodolfo Jardim Azevedo (FAPESP) Profa. Dra. Ana Maria Frattini Fileti (Unicamp) Vinicius Pagano (Eldorado)
9:40	**Roundtable**: Benefits of Integrated Practices to Increase O&G Production Efficiency and Decarbonize the Sector	Dr. Francisco Alhanati (Alhanati Consulting) Dr. Jorge Biazussi (Baker Hughes) MSc. Jorge Matias (Equinor) Mariana Rodrigues França (ANP) Prof. Michael J. King (Texas A&M) **Moderator:** Prof. Marcelo Souza de Castro (EPIC/Unicamp)
11:00	**Break**	
11:30	**Keynote**: What IS the thermal history of your sedimentary basin? A new data driven approach	Prof. Robert H. Goldstein (Kansas University)
12:10	**Technical Presentation 1:** Build and calibration a numerical model of a fractured reservoir model (Dual Porosity/Dual Permeability – DP/DK): Tupi Field (Santos Basin, Brazil) case study	Daniel Mauricio Rojas Caro (EPIC/Unicamp)
12:30	**Technical Presentation 2:** Enhancing Asset Profitability with Flexibility for Life Cycle Field Development – a Comparative Study for well placement allocation and capacity	Felipe da Rocha Branco (EPIC/Unicamp)
12:50	**Lunch**	
14:10	**Keynote**: Current Research Activities on Impure CO_2 Transport and Injection at the University of Tulsa	Prof. Cem Sarica (Tulsa University)
14:50	**Technical Presentation 3**: Experimental Investigation of the Shear-induced Degradation of Polymer Solutions	Dr. Natan Bulgarelli (EPIC/Unicamp)
15:10	**Technical Presentation 4**: Integrating borehole image log, core data, and computed tomography for characterizing natural open fractures in the Pre-salt Barra Velha Formation, Santos Basin, Brazil	Luiza Mendes (EPIC/Unicamp)
15:30	**Break + Poster Session A**	
16:40	**Keynote:** Practical Considerations in the Application of Ensemble Smoother for Assimilating Production and 4D Seismic Data	Dr. Alexandre Emerick (Petrobras)
17:20	**Technical Presentation 5**: A novel electrofacies approach for the characterization of a pre-salt carbonate reservoir	Marilia Molina Camargo (EPIC/Unicamp)
17:40	**Technical Presentation 6**: Exploring traces versus bubbles in the design of robust two-level Stokes-Brinkman finite element models	Profa. Sonia Maria Gomes (EPIC/Unicamp)

Day 1: Poster Session A

🕐	Title	Presenter
15:30 – 16:30	**Poster A1:** Comparing oilfield development and management methodologies in a synthetic post-salt reservoir model under uncertainty	Josias Pereira de Oliveira Júnior (EPIC/Unicamp)
	Poster A2: Evaluation of the influence of wells opening schedule in economic aspects of a project using CO2-WAG: a probabilistic study	Dr. Anthony Andrey Ramalho Diniz (EPIC/Unicamp)
	Poster A3: Influence of Integration Between Reservoir and Production System Considering Polymer Injection in a Heavy Oil Reservoir	Lorena Cardoso Batista (EPIC/Unicamp)
15:30 – 16:30	**Poster A4:** Studies on the bubble points of heptane/toluene/methane and heptane/toluene/methane/CO_2 mixtures	Dr. Ivanei Ferreira Pinheiro (EPIC/Unicamp)
	Poster A5: The impact of P and T conditions on emulsion stability and physicochemical properties - Experimental challenges	Dr. Carlos Eduardo Perles (EPIC/Unicamp)
	Poster A6: Evaluating Asphaltene Aggregation with Lumisizer: A Comprehensive Study	Dr. Fernanda Paludetto Pelaquim (EPIC/Unicamp)
15:30 – 16:30	**Poster A7:** Integration of Seismic Geobodies into Facies Models Using Machine Learning for Reservoir Characterization: A Case Study of Brazil's Pre-Salt	Juan Villacreses Morales (EPIC/Unicamp)
	Poster A8: Fracture distribution in 3D modeling of a Brazilian pre-salt carbonate reservoir using a conceptual geological model	Dr. Joan Marie Blanco Gonzalez (EPIC/Unicamp)
	Poster A9: Digital image analysis applied to thin sections of Aptian carbonate rocks of the Barra Velha Formation, Santos Basin, Brazil	Luis Augusto Antoniossi Mansini (EPIC/Unicamp)
15:30 – 16:30	**Poster A10:** Estimating Rock Typing in Uncored Wells Using Machine Learning Techniques for Brazilian Pre-Salt Carbonate Reservoir	Dr. Saad Allahham (EPIC/Unicamp)

Feedback

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ENERGY PRODUCTION INNOVATION CENTER
Research & Education

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Day 2: November 12th

🕐	Session	Speaker
8:00	**Technical Visit**: Eldorado Research Institute (pre-registration required)	
9:00	**Keynote:** Challenges on CO_2 Sequestration Modelling	Dr. Luis Lamas (PETEX)
9:40	**Technical Presentation 7**: Emulsion Stability in production P and T conditions - First Steps	Isabella Genesini Freitas (EPIC/Unicamp)
10:00	**Technical Presentation 8**: Few-Shot Energy Forecasting Using Continuous Online Learning	Dr. Gabriel Cirac Mendes Sousa (EPIC/Unicamp)
10:20	**Break + Poster Session B**	
11:30	**Keynote:** PVT - From sampling to reservoir & production model input	Jarle Larsen (Equinor)
12:10	**Technical Presentation 9:** Laboratory of Thermophysical Properties of Fluids at High Pressure at CEPETRO-UNICAMP	Prof. Dr. Paulo Rosa (EPIC/Unicamp)
12:30	**Technical Presentation 10**: Production Strategy Optimization through Model-Based Decision Analysis to Manage a Heavy Oil Reservoir: Polymer Flooding and Intelligent Wells	Andres Fernando Peralta Sánchez (EPIC/Unicamp)
12:50	**Lunch**	
14:10	**Keynote**: Silicon Carbide: Microeletronics Tecnology	Dr. Fernando Chavez Porras (Inst. Eldorado)
14:50	**Technical Presentation 11:** Integrated Multi-Scale Pore Characterization of Carbonate Rocks in the Barra Velha Formation, Santos Basin, Brazil	Gabriela Fernandes Matheus (EPIC/Unicamp)
15:10	**Technical Presentation 12:** OPM Flow on GPUs	Vinicius de Oliveira Martins (EPIC/Unicamp)
15:30	**Conference Closing**	Prof. Denis J. Schiozer (EPIC/Unicamp)

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Day 2: Poster Session B

⏱	Title	Presenter
10:20 – 11:20	**Poster B1:** Using the Producer Well Economic Index to Improve a Metaheuristic for Well Placement Optimization in Petroleum Fields	Dr. Artur Ferreira Brum (EPIC/Unicamp)
	Poster B2: MHM method for elasticity: a priori and a posteriori error estimates	Prof. Denise de Siqueira (EPIC/UTFPR)
	Poster B3: Mitigating Spurious Correlations in Iterative Ensemble Smoothers through Sample Covariance Scaling	Dr. Paulo Henrique Ranazzi (EPIC/USP)
	Poster B4: Visualization of multiple risk curves of fields and wells as an aid in the selection of representative models of oil reservoirs	Miguel Angelo Povoa (EPIC/Unicamp)
10:20 – 11:20	**Poster B5:** Investigation of methods for ESP failure detection with field data	Dr. Heitor Nigro Lopes (EPIC/Unicamp)
	Poster B6: Influence of microwax on the rheological and thermal behavior of a wax crude oil	Dra. Gabrielli Nunes Clímaco (EPIC/Unicamp)
	Poster B7: Comparison of Wax Solubility Estimation Using DSC and Chromatographic Analysis	Dr. Tahmasb Hatami (EPIC/Unicamp)
10:20 – 11:20	**Poster B8:** Depth matching between well and core data using Reinforcement Learning	João Paulo da Ponte Souza (EPIC/Unicamp)
	Poster B9: Petrophysical Analysis and Evaluation of Pre-Salt Carbonate Rocks Heterogeneity	Everton Galvão Feitoza (EPIC/Unicamp)

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