

2017 CAPA PETROLEUM TECHNICAL SYMPOSIUM

The Road to Recovery: How Integration and Innovation Help the Energy Industry to Evolve and Adapt Successfully

復甦之路：整合與創新
如何幫助能源行業持續成功發展和適應



November 3rd, 2017
Houston, TX, USA
www.capaus.org

Program Schedule

Friday, 3 November 2017	
08:00-14:00	Registration
08:00-08:45	Continental Breakfast
08:30-08:50	Keynote Speech Presentations Upload
Plenary Session (Auditorium)	
08:50-08:55	Safety Instruction
08:55-09:05	Welcoming Remarks Jeff Chen, President of CAPA and Symposium Chair
09:05-09:50	Illustrating the Role of Models in Geophysical Interpretation Bill Abriel, President 2016/2017, SEG, and Orinda Geophysical
09:50-10:20	The Role of Technology in the Outlook of Energy – An ExxonMobil View Dr. Xiaojun Huang, Geophysics Manager, ExxonMobil Upstream Research Company
10:20-10:40	Coffee Break
10:40-11:10	Energy Fundamentals Update Josh McCall, Fundamental Analytics Director, BP
11:10-11:40	US Shale Revolution Impacts on Deepwater and Global Energy Landscape Dr. Y. Doreen Chin, VP - System and Operability Solutions, Subsea Engineering Technologies, LLC.
11:45-13:00	Luncheon (Lunch Area)
13:00-13:30	Sessions Speakers to Upload Presentation
Business Development Forum: Big Data & Its Applications Session Chair: Tracy Pan, Fundamentals Advisor, BP Auditorium, 13:30-17:00	
Panelists:	
Alan Mi	Introduction to Big Data and Its General Applications Data Sense Advisors, LLC
Xin-Gong Li	Big Data: Some Facts and Thoughts Integrated Seismic Solution, Inc. / University of Houston
Raghu Yabaluri	Big Data in Oil & Gas Deloitte
Richard Batsell	Toward a Management Science for Unconventional Wells Analytica Inc. / Rice University
Technical Sessions & Student Paper Contest, 13:30 – 17:00	
Session A: Deepwater and Conventional Exploration & Production (Room 1021)	
Session B: Big Data and Unconventional Plays (Room 1022)	
Session C: Engineering & HSE (Room 1020)	
Session D: Petroleum Economics (Room 1023)	
Session E: Business Development Forum: Big Data & Its Applications (Auditorium)	
Session F: Student Paper Contest I (Room 1012)	
Session G: Student Paper Contest II (Room 1013)	

Technical Sessions Schedule

Session A: Deepwater and Conventional Exploration & Production (Room 1021)

Session Chairs: Jianxiong Chen, Anadarko; Yi Chen, Shell

13:30-13:55	Maximizing Recovery in Low Oil Price Environments – A Cost Efficient MEOR Bo Lu, New AERO Technology
13:55-14:20	The Discovery of Daqing Oil Field in China Mu Liu, Independent Consultant
14:20-14:45	Coupling Nanoparticles with Waterflooding to Increase Water Sweep Efficiency for High Fines-Containing Reservoirs Tianping 'Tim' Huang, Baker Hughes, a GE company
14:45-15:15	Coffee Break
15:15-15:40	Large Pressure Drawdowns Influence Wellbore Temperature Profiles in Deepwater Reservoirs Boyue Xu, Texas A&M University
15:40-16:05	Obtaining 3D Representative Pore Size Distributions from Thin Section Images of Conventional Oil Reservoirs Mark Subra, University of Houston
16:05-16:30	Reserves Uncertainty Assessment in Deep Offshore Gulf of Mexico. Example from Buckskin Field Taoufik Ait-Ettajer, Repsol U.S.A.
16:30-16:55	2D/3D Elastic Wave Propagation Modeling with Complex Topography Lei Fu, Xianhuai Zhu, Forland Geophysical Services

Session B: Big Data and Unconventional Plays (Room 1022)

Session Chairs: Mei Yang, Consultant; Jing Xiang, Geomechanics Technology

13:30-13:55	An Easy and Fast EDFM Method for Production Simulation in Shale Reservoirs with Complex Fracture Geometry Wei Yu, Texas A&M University
13:55-14:20	Depositional, Mineralogical, and Maturity Controls on Pore Types, Porosity, and Pore-Size Distribution in Mudrocks/Shales Lucy Tingwei Ko, The University of Texas at Austin
14:20-14:45	Application of integrated core and 3D image Rock Physics to Characterize Niobrara Chalk Properties Including Relative Permeability Andy Lei, Shawn Zhang, and Alan P. Byrnes, DigiM Solution LLC
14:45-15:15	Coffee Break
15:15-15:40	Mechanical-Stratigraphic Characterization of the Eagle Ford Formation in Outcrop and Core, McMullen and Terrell Counties, Texas Xu, G., J.S. Chester, and F.M. Chester, Texas A&M University
15:40-16:05	Multi-Seismic Attribute Analysis with Machine Learning: An Unsupervised Approach ChingWen Chen, Geophysical Insights
16:05-16:30	Maximizing the Value of Unconventional Liquid Rich Shale Development with Integrated Cross-Discipline Approach Richard Cao, Long Ma, Aidan Blount, Shell Exploration & Production Co.
16:30-16:55	Unconventional Reserve Estimation and Resource Evaluation Jiajie (Jeff) Chen, Chunhong Ma, Junfeng Yang, Yuzhan Li, and Ben Wang, Sinopec

Technical Sessions Schedule

Session C: Engineering and HSE (Room 1020)

Session Chairs: Yan Dong, Repsol; Emma Luo, Chevron; Qi Zhang, Providence Group

13:30-14:00	Applying Life Cycle Assessment Methodology in Decision Making to Reduce Footprint and Drive Better Outcome for Environmental Remediation Activities – Best Practices and Lessons Learned Hong Jin, Roopa Kamath, Amy Nicole Gropp, and Sara McMillin, Chevron
14:00-14:30	Suction Pile Application in the Offshore Industry Warren Kuo, MCT Engineering
14:30-15:00	Engineering Perspectives of HSE in Energy Industry Kuo-Jen “KJ” Liao, former assistant professor at Texas A&M University-Kingsville
15:00-15:30	Coffee Break
15:30-16:00	Risk and Reliability Evaluation Research for FPSO Yong Bai, Yuxin Xu, and Huibin Yan, Zhejiang University
16:00-16:30	Incorporating Science into Vapor Intrusion Site Investigation and Risk Assessment Emma Hong Luo, Chevron
16:30 – 17:00	Buckskin, from Near Death to Success Yan Dong and Federico Giannangeli, Repsol

Session D: Petroleum Economics (Co-organized with SPRE, Room 1023)

Session Chairs: GQ Guo, SPRE; Reuven Hollo, SPRE; Mu Liu, Consultant; Meisong Yan, Consultant

13:30-14:00	The Impact of China on the Price of Oil Reuven Hollo, University of Houston
14:00-14:30	The Three Prongs of US Crude Exports Joshua Starnes, Thomson Reuters
14:30-15:00	Seeking growth: What Will Drive US Natural Gas Demand? Thomas Shattuck, Deloitte Center for Energy
15:00-15:30	Coffee Break
15:30-16:00	CO2 Flood Overview Zhipeng “Z” Liu, Kinder Morgan CO2
16:00-16:30	Inter-Pollutant Emissions Reduction Credits Trading with Air Quality Modeling Demonstration Qi Zhang and James Red, Providence Engineering and Environmental Group LLC
16:30-17:00	Midland Basin Lease Renewal or Land Divesture Meisong Yan, Independent Consultant

Session E: Business Development Forum: Big Data & Its Applications (Auditorium)

Session Chair: Tracy Pan, Fundamentals Advisor, BP

Panelists:	Alan Mi	Introduction to Big Data and Its General Applications Data Sense Advisors, LLC
	Xin-Gong Li	Big Data: Some Facts and Thoughts Integrated Seismic Solution, Inc. / University of Houston
	Raghu Yabaluri	Big Data in Oil & Gas Deloitte
	Richard Batsell	Toward a Management Science for Unconventional Wells Analytica Inc. / Rice University

13:30-17:00	Panel Discussion
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Student Paper Contest Schedule

Session F: Student Paper Contest I (Room 1012)

Judges: Liz Baker, Shell; Shengkai Duan, Chevron; Kuochen Tsai, Consultant

13:30-14:00	Novel Hybrid Miscible Flooding for Viscous Oil Recovery from Naturally Fractured Reservoirs Vence C. Y. Sie, The University of Texas at Austin
14:00-14:30	Optimal Scheduling for Refinery Front-end Crude Movement under Consideration of Inherent Upset Reduction Honglin Qu, Lamar University
14:30-15:00	The Malpelo Plate Hypothesis and Implications for Non-closure of the Cocos-Nazca-Pacific Plate Motion Circuit Tuo Zhang, Richard G. Gordon, Jay K. Mishra, and Chengzu Wang, Rice University
15:00-15:30	Coffee Break
15:30-16:00	Adaptive Time Stepping with the Modified Local Error Method for Coupled Flow-Geomechanics Modeling Cheng An, John Killough, Texas A&M University
16:00-16:30	Velocity Dispersion and Wave Attenuation of Marcos and Marcellus Shale Qi Huang, De-hua Han, Min Sun, Qianqian Wei, University of Houston
16:30-17:00	Judges' Meeting
17:00-17:30	Student Paper Contest Award

Session G: Student Paper Contest II (Room 1013)

Judges: Joshua H. Payne, Shell; Po C. Tai, ExxonMobil; Xinli Jia, Haliburton

13:30-14:00	Numerical Simulation of Carbonate Matrix Acidization Using Adaptive Enriched Galerkin Method with Entropy Residual Stabilization Rencheng Dong, The University of Texas at Austin
14:00-14:30	Optimal Design of Pipeline System for Flare Minimization in Multiple Chemical Plants Yiling Xu, Qiang Xu*, Tianxing Cai, Lamar University
14:30-15:00	Modeling Lost Circulation and Assessing Enhanced Propagation Resistance by Fracture Sealing Peidong Zhao, The University of Texas at Austin
15:00-15:30	Coffee Break
15:30-16:00	A Novel Production Forecast Model for Hydraulic Fractured Wells Based on Anomalous Transport Phenomenon in the Formation with Complex Fracture Network Shuai Liu, Peter P. Valkó, Texas A&M University
16:00-16:30	Shape Optimization via Full Waveform Inversion (FWI) on Fully Unstructured Tetrahedral Meshes Jia Shi, Rice University
16:30-17:00	Judges' Meeting
17:00-17:30	Student Paper Contest Award