



MCERI Annual Meeting

Margaritaville Lake Resort Montgomery, Texas

November 3-4, 2022

Agenda

DAY 1 – Thursday, November 3, 2022

- 7:30 AM Breakfast
- 8:30 AM Opening Remarks
Akhil Datta-Gupta and Michael J. King, Texas A&M University (15 min)
- 8:45 AM Multiresolution Simulation of Unconventional Reservoirs Using Fast Marching Method
Hongquan Chen (25 min)
- 9:10 AM Robust CO₂ Plume Imaging by Joint Tomographic Inversion using Distributed Pressure and Temperature Measurements
Changqing Yao (25 min)
- 9:35 AM An Efficient Deep Learning-Based Workflow for CO₂ Plume Imaging Considering Model Uncertainties Using Distributed Pressure and Temperature Measurements
Masahiro Nagao (25 min)
- 10:00 AM Field Experiences with Streamline Based Polymer Flood Optimization: The Mangala Field, India
Ao Li (25 min)
- 10:25 AM Break (20 min.)
- 10:45 AM Multiresolution Coupled Flow and Geomechanical Modeling Using Fast Marching Method
Kaz Terada (25 min)
- 11:10 AM Application of Multi-Resolution Simulation and Multi-Objective History Matching to Austin Chalk/Eagle Ford Project
Jia Fu (25 min)
- 11:35 AM Identification of Key Wells for Optimization Considering Geologic Uncertainty
Deepthi Sen (25 min)
- 12:00 PM Lunch (75 min.)
- 1:15 PM Practical Field-Scale Reservoir Surveillance and Production Optimization Using Hybrid Data-Driven and Physics-Based Reservoir Models
Hardikkumar Zalavadia, XECTA
- 1:45 PM Field-scale Multi-Objective Optimization of Rate and Concentration for Polymer Flooding
Ruxin Zhang (20 min)



- 2:05 PM A Field Application of Model-Free Production Forecasting Using Statistical Recurrent Unit
Prithvi Chauhan (20 min)
- 2:25 PM Relative Permeability Upscaling
Yaser Alghawi (20 min)
- 2:45 PM Break (30 min.)
- 3:15 PM Physics-informed Machine Learning for Reservoir Connectivity Identification and Production Forecasting
Masahiro Nagao (20 min)
- 3:35 PM Model Based MTFW Shale Reservoir Production Analysis
Ismail Mohamed (20 min)
- 3:55 PM MCERI Participation in DOE SMART Initiative
Akhil Datta-Gupta (10 min)
- 4:05 PM Discussion and Wrap-up
Michael J. King and Akhil Datta-Gupta, Texas A&M University
- 5:00 PM Reception
- 6:00 PM Dinner

DAY 2 – Friday, November 4, 2022

- 7:30 AM Breakfast
- 8:00AM Opening Remarks
Akhil Datta-Gupta and Michael J. King, Texas A&M University
- 8:15AM DESTINY: Tracing and Flood Optimization
Ao Li
- 9:15 AM FMMSIM: Fast Marching Based Rapid Simulation
Kazuyuki Terada
- 10:15 AM Break
- 10:45 AM SPADES: Production Data Analysis for Unconventional Reservoirs
Venkata Chavali
- 11:15 AM SWIFT: Upgridding and Upscaling
Yaser Alghawi
- 12:00 PM Lunch and Adjourn