# Agenda

## DAY 1 – Thursday, November 2, 2023

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tr>
<td>7:30 AM</td>
<td>Breakfast</td>
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| 8:30 AM | Opening Remarks<br>
*Akhir Datta-Gupta and Michael J. King, Texas A&M University (15 min)* |
| 8:45 AM | An Efficient Deep Learning-Based Workflow for CO2 Plume Imaging with Distributed Pressure and Temperature Measurements<br>
*Masahiro Nagao (25 min)* |
| 9:10 AM | High Resolution Modeling of Pore Pressure Change, Fault Slip Potential and Induced Seismicity in the Fort Worth Basin<br>
*Changqing Yao (25 min)* |
| 9:35 AM | Subsurface Injection Monitoring in Complex Geologic Media Using Pathline, Source Cloud and Time Cloud<br>
*Ao Li (25 min)* |
| 10:00 AM | Streamline-based Three-phase History Matching for CO2 Flooding Field Application<br>
*Ruxin Zhang (25 min)* |
| 10:25 AM | Break (20 min.)                             |
| 10:45 AM | Multi-Resolution Simulation for Efficient Pressure & Stress Change Calculation in Large-Scale CCS Reservoirs Using PSS Pressure as Spatial Coordinate<br>
*Kazuyuki Terada (25 min)* |
| 11:10 AM | A Deep-Learning Based Accelerated Workflow for Robust CO2 Plume Imaging at the Illinois Basin-Decatur Carbon Sequestration Project<br>
*Changqing Yao (25 min)* |
| 11:35 AM | Physics-informed Machine Learning for Reservoir Connectivity Identification and Robust Production Forecasting<br>
*Masahiro Nagao (25 min)* |
| 12:00 PM | Lunch (75 min.)                             |
| 1:15 PM | Industry Presentation<br>
*A Novel Hierarchical Global-Local Model Calibration Method for Deep Water Reservoirs Under Depletion and Aquifer Influence<br>
*Omer Alpak, Shell* |
1:45 PM  Models for Upscaling and Depletion in High Contrast Systems  
         *Yaser Alghawi (25 min)*

2:10 PM  Accelerated Deep Learning-based Workflow for CO2 Plume Imaging in Saline Aquifer Using Diffusive Time of Flight  
         *Takuto Sakai (15 min)*

2:25 PM  Break (30 min.)

2:55 PM  Field Application of a Novel Multi-Resolution Multi-Well Unconventional Reservoir Simulation: History Matching and Parameter Identification  
         *Jia Fu (20 min)*

3:15 PM  New Rapid Solutions for Production Analysis from Multi Transverse Fracture Wells  
         *Ismail Mohamed (20 min)*

3:35 PM  Accelerated CO2 Storage Optimization using Multi-Resolution Fourier Neural Operator in IBDP Field Case  
         *Chin Hsiang Chan (15 min)*

3:50 PM  Discussion and Wrap-up  
         *Michael J. King and Akhil Datta-Gupta, Texas A&M University (30 min.)*

5:00 PM  Reception

6:00 PM  Dinner

**DAY 2 – Friday, November 3, 2023**

7:30 AM  Breakfast

8:00 AM  Opening Remarks  
         *Akhil Datta-Gupta and Michael J. King, Texas A&M University*

8:15 AM  DESTINY: A Software for Flow Visualization, History Matching and Rate Allocation Optimization Using Streamlines  
         *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  
         *Ismail Mohamed*

11:15 AM  SWIFT: Upgridding and Upscaling  
         *Yaser Alghawi*

12:00 PM  Lunch and Adjourn