## Agenda

### DAY 1 – Thursday, November 2, 2023

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tr>
<td>7:30 AM</td>
<td>Breakfast</td>
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</table>
| 8:30 AM    | Opening Remarks

* Akhil 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

* 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

* Changqing Yao (25 min) |
| 9:35 AM    | Subsurface Injection Monitoring in Complex Geologic Media Using Pathline, Source Cloud and Time Cloud

* Ao Li (25 min) |
| 10:00 AM   | Streamline-based Three-phase History Matching for CO2 Flooding Field Application

* 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

* 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

* Changqing Yao (25 min) |
| 11:35 AM   | Physics-informed Machine Learning for Reservoir Connectivity Identification and Robust Production Forecasting

* Masahiro Nagao (25 min) |
| 12:00 PM   | Lunch (75 min.) |
| 1:15 PM    | Industry Presentation


* 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