

Monday, November 2, 2020

- 11:00 AM** **Welcome & DOE Sponsor Remarks**
Program Sponsors from NETL and HQ
- 11:10 AM** **Overview**
Grant Bromhal
- 11:20 AM** **Rock Properties Visualization**
David Alumbaugh and Dustin Crandall
- 12:05 PM** **State of Stress/Pressure**
Sherilyn-Williams Stroud and Josh White
- 12:50 PM** **Real-Time Visualization of Faults and Fracture Networks**
Nick Azzolina and Joe Morris
- 1:30 PM** **BREAK**
- 2:15 PM** **Pressure Crosscutting Panel**
Moderator: Grant Bromhal
Pressure is a critical property for all subsurface systems. How it changes is fundamental to all the work done within SMART. How it is measured, calculated, estimated, managed, visualized are all being tackled. What lessons are being learned about how to most effectively represent and track pressure, pressure changes, and their impact on the outcomes?
Lead and Co-Lead: Seyyed Hosseini and Priya Ravi
- 2:45 PM** **Fluid Plume Crosscutting Panel**
Moderator: George Guthrie
Knowing where different fluids are and how they are moving within the rocks is critical to effective reservoir management. How it (e.g., CO₂ plume, oil plume) is measured, calculated, estimated, managed, visualized is being addressed. What lessons are being learned about how to most effectively represent and track plume migration? How can this inform decisions about where to place the next well?
Lead and Co-Lead: Hongkyu Yoon and David Alumbaugh

- 3:15 PM** **Fractures and Fracture Networks Crosscutting Panel**
Moderator: Fred Aminzadeh
Fracture networks are some of the most complicated types of subsurface systems to effectively characterize and model, yet they are critical to all of the systems being addressed in SMART. What approaches are being used to identify/characterize them? How do they evolve? How do you represent their connectivity?
Lead and Co-Lead: Joe Morris and Jeffrey Hyman
- 3:45 PM** **Wrap-up**
- 4:00 PM** **Break/Poster Session Setup**
- 4:15 PM** **Poster Session**
- 5:15 PM** **ADJOURN**

Tuesday, November 3, 2020

- 11:00 AM** **Real-Time Forecasting and History Matching**
Nick Azzolina and Catherine Yonkofski
- 11:45 AM** **Active CO₂ Management**
Rajesh Pawar and Jared Schuetter
- 12:30 PM** **Real-Time Forecasting: MSEEL**
Hari Viswanathan and Tim Carr
- 1:15 PM** **BREAK**
- 2:00 PM** **Heterogeneity Crosscutting Panel**
Moderator: Srikanta Mishra
Heterogeneity is relevant to a plethora of subsurface properties (e.g., porosity, permeability, fractures orientations, and yet is one of the hardest things to effectively characterize. How much data is needed to visualize a heterogeneous field? Can the most relevant information be identified through data mining? What are the relevant scales at which that information is needed? Can we gain insight from image / data compression?
Lead and Co-Lead: Wei Jia and Jyoti Behura

- 2:30 PM A Bridge Between Synthetic and Real Data Crosscutting Panel**
Moderator: Fred Aminzadeh
Synthetic data is being used in almost all SMART teams to augment real data and in some cases, stored data is being used to augment live stream data. What approaches are being taken to sync or utilize the different types of data needed? Can a library/reference source of data be created and cataloged or tapped for many question(s)?
Lead and Co-Lead: Michael Gross and Youzuo Lin
- 3:00 PM Accurate, Rapid Predictions Crosscutting Panel**
Moderator: Srikanta Mishra
Very fast predictions that are accurate are critical to the success of SMART. Physics-based models are often slow, but can be made faster. Proxy models can also be developed. How are all of these options being considered? Can they be combined? Are there other approaches not being considered that show as much or more promise?
Lead and Co-Lead: Bailian Chen and Gavin Liu
- 3:30 PM Wrap-up Discussion**
- 4:00 PM ADJOURN**