## Center for Subsurface Modeling (CSM) Industrial Affiliates Meeting Agenda April 11-12, 2018

| Day 1          |  |
|----------------|--|
| 8:30-9:00 AM   | Overview of Center for Subsurface Modeling Activities 2017-2018  Mary F. Wheeler, CSM, UT Austin   |
| 9:00-9:30 AM   | Space-Time Adaptivity for Non-Linear, Multiphase Flow, and Transport Problems Gurpreet Singh, CSM, UT Austin   |
| 9:30-10:00 AM  | Adaptive Mesh Refinement with the Enhanced Velocity Method Benjamin Ganis, CSM, UT Austin  |
| 10:00-10:30 AM | Coffee Break   |
| 10:30-11:00 AM | Phase Field Modeling Approach for Hydraulic Fracturing in Porous<br>Media<br>Sanghyun Lee, Florida State University  |
| 11:00-11:30 AM | Computational Homogenization for Heterogeneous Porous Solids Saumik Dana, CSM, UT Austin   |
| 11:30-12:00 PM | Use of Interferometric Synthetic Aperture Radar (InSAR) for Characterizing Confined Aquifer Water Levels and Aquifer Properties Ann Chen, Center for Space Research, UT Austin |
| 12:00-1:00 PM  | Lunch  |
| 1:00-1:45 PM   | JIP Discussion: Innovative Tools for a Changing Paradigm Dan Bossie-Codreanu, Matthieu Delorme, Institute for French Petroleum   |
| 1:45-2:30 PM   | JIP Discussion: Data Analysis and Uncertainty Assessment of Unconventional Production Sanjay Srinivasan, Pennsylvania State University   |
| 2:30-3:00 PM   | Coffee Break   |
| 3:00-3:45 PM   | JIP Discussion: Simulation of Unconventional Reservoirs from Sublime to Ridiculous John Killough, Texas A&M University   |
| 3:45-4:30 PM   | JIP Discussion: Diffusive Fracture Network Representations in Tight Formations Mary F. Wheeler, CSM, UT Austin   |
| 4:30-5:30 PM   | Poster Session   |
| 6:00-7:30 PM   | Food and Discussion at Harry Ransom Center   |

## Center for Subsurface Modeling (CSM) Industrial Affiliates Meeting Agenda April 11-12, 2018

| Day 2          |   |
|----------------|---|
| 8:30-9:00 AM   | Surfactant Flooding in Tight Oil Reservoirs                       |
|                | Mohammad Lotfollahi, CSM, UT Austin                               |
| 9:00-9:30 AM   | Numerical Simulations of Gas Mobility Control Techniques During   |
|                | Carbon Sequestration/EOR in Cranfield                             |
|                | Xueying (Cherie) Lu, CSM, UT Austin                               |
| 9:30-10:00 AM  | Reservoir-Fractures Coupling Using Phasefield Diffusive Zone      |
|                | Representation  |
|                | Mohamad Jammoul, CSM, UT Austin                                   |
| 10:00-10:30 AM | Coffee Break  |
|                |   |
| 10:30-11:00 AM | Von Neumann Stable, Implicit Finite Volume WENO Schemes of High   |
|                | Order   |
|                | Todd Arbogast, CSM, UT Austin                                     |
| 11:00-11:30 AM | Multiscale Finite Element Methods for Black Oil Model             |
|                | Wingtat Leung, CSM, UT Austin                                     |
| 11:30-12:00 PM | Numerical Simulation of Carbonate Matrix Acidizing Using Adaptive |
|                | Enriched Galerkin Methods   |
|                | Rencheng Dong, CSM, UT Austin                                     |
| 12:00-1:00 PM  | Lunch   |
| 1:00-2:00 PM   | Wrap-up and Discussion  |
|                | Mary F. Wheeler, CSM, UT Austin                                   |