

Day (1): Monday, November 27, 2023

| Annual Meeting (Day 1) – Dr. Tameem Amani Brief Overview of Interpore Saudi Chapter – Prof. Shuyu Sun, President of Interpore Saudi Chapter 9:00 AM – 10:00 AM Reynote Speech (1): Prof. Shuyu Sun, KAUST Keynote Speech (2): Prof. Majid Hassanizadeh, Utrecht University, Managing Director of Interpore 11:00 AM – 12:20 PM Lunch Break MS 01 Session (1): Prof. Shuyu Sun, KAUST Physical and Algorithms for Porous Media Flow MS 01 Chair: Prof. Shuyu Sun, KAUST Physical and Numerical Simulation of Microscale Porous Flow using 3D printed rock and DRP, Prof. Rui Song (Chinese Academy of Sciences, China) On the Filtration of Oily Water Systems Using Membranes: Micro Fates, and Macro Model, Dr. Amgad Salama (University of Regina, Canada) 1:00 PM – 1:20 PM Medial Access Path Search (MAPS) for Pore-Network Extraction, Prof. Yuze Zhang (Nanjing Normal University, China) Numerical Methods for Diffuse Interface Model with Application to Multiphase Flows, Prof. Abdullah Shah (KFUPM) 1:40 PM – 2:00 PM Thermodynamic Analysis of Quasi-static Pore-Network Modeling of Phase Equilibrium, Ronghao Cui (PhD candidate, KAUST) MS 02 : Reservoir Geomechanics MS 02 Chair: Dr. Osman Hamid, Saudi Aramco 2:00 PM – 2:20 PM A true pore surface roughness measurement technique: 3D Pore Surface Roughness (3D PSR) from X-ray μ-CT image data, Dr. Hyung T. Kwak (Saudi Aramco) 2:40 PM – 3:00 PM Break & Online Networking Prof. Abdallah Ghreizy, American University of Beirut (AUB), Title: TBD Prof. Abdallah Ghreizy, American University of Beirut (AUB), Title: TBD Comparison of Flow-Mechanics, Prof. Younane Abousleiman (University of Oklahoma, Aramco Services Company) | 8:30 AM- 8:45 AM | Opening Remarks: Welcome to the 2 nd Interpore Saudi Chapter | |
|---|--|---|--|
| President of Interpore Saudi Chapter 9:00 AM – 10:00 AM Keynote Speech (1): Prof. Shuyu Sun, KAUST Keynote Speech (2): Prof. Majid Hassanizadeh, Utrecht University, Managing Director of Interpore 11:00 AM – 12:20 PM Lunch Break MS 01 Session (1): Pore-Scale Modeling and Algorithms for Porous Media Flow MS 01 Chair: Prof. Shuyu Sun, KAUST Physical and Numerical Simulation of Microscale Porous Flow using 3D printed rock and DRP, Prof. Rui Song (Chinese Academy of Sciences, China) On the Filtration of Oily Water Systems Using Membranes: Micro Fates, and Macro Model, Dr. Amgad Salama (University of Regina, Canada) 1:00 PM – 1:20 PM Medial Access Path Search (MAPS) for Pore-Network Extraction, Prof. Yuze Zhang (Nanjing Normal University, China) Numerical Methods for Diffuse Interface Model with Application to Multiphase Flows, Prof. Abdullah Shah (KFUPM) 1:40 PM – 2:00 PM MS 02 : Reservoir Geomechanics MS 02 Chair: Dr. Osman Hamid, Saudi Aramco 2:00 PM – 2:20 PM Pore Size and Pore Throat Damage Mechanics, Dr. Osman Hamid (Saudi Aramco) A true pore surface roughness measurement technique: 3D Pore Surface Roughness (3D PSR) from X-ray μ-CT image data, Dr. Hyung T. Kwak (Saudi Aramco) 2:40 PM – 3:00 PM Break & Online Networking Prof. Abdallah Ghreizy, American University of Beirut (AUB), Title: TBD 3:20 PM – 4:00 PM Comparison of Flow-Mechanics, Br. Overse for | | Annual Meeting (Day 1) – Dr. Tameem Amani | |
| President of Interpore Saudi Chapter 9:00 AM – 10:00 AM Keynote Speech (1): Prof. Shuyu Sun, KAUST Keynote Speech (2): Prof. Majid Hassanizadeh, Utrecht University, Managing Director of Interpore 11:00 AM – 12:20 PM Lunch Break MS 01 Session (1): Pore-Scale Modeling and Algorithms for Porous Media Flow MS 01 Chair: Prof. Shuyu Sun, KAUST Physical and Numerical Simulation of Microscale Porous Flow using 3D printed rock and DRP, Prof. Rui Song (Chinese Academy of Sciences, China) On the Filtration of Oily Water Systems Using Membranes: Micro Fates, and Macro Model, Dr. Amgad Salama (University of Regina, Canada) 1:00 PM – 1:20 PM 1:20 PM – 1:40 PM Numerical Methods for Diffuse Interface Model with Application to Multiphase Flows, Prof. Abdullah Shah (KFUPM) Thermodynamic Analysis of Quasi-static Pore-Network Modeling of Phase Equilibrium, Ronghao Cui (PhD candidate, KAUST) MS 02 : Reservoir Geomechanics MS 02 Chair: Dr. Osman Hamid, Saudi Aramco 2:00 PM – 2:20 PM 2:20 PM — 2:40 PM Pore Size and Pore Throat Damage Mechanics, Dr. Osman Hamid (Saudi Aramco) A true pore surface roughness measurement technique: 3D Pore Surface Roughness (3D PSR) from X-ray μ-CT image data, Dr. Hyung T. Kwak (Saudi Aramco) 2:40 PM – 3:20 PM 3:20 PM – 3:20 PM Prof. Abdallah Ghreizy, American University of Beirut (AUB), Title: TBD 3:20 PM – 4:00 PM Comparison of Flow-Mechanics, Prof. Younane Abousleiman (University of Oklahoma, Aramco Services Company) | 8:45 AM – 9:00 AM | Brief Overview of Interpore Saudi Chapter – Prof. Shuyu Sun, | |
| 10:00 AM - 11:00 AM | | President of Interpore Saudi Chapter | |
| Managing Director of Interpore | 9:00 AM - 10:00 AM | Keynote Speech (1): Prof. Shuyu Sun, KAUST | |
| Managing Director of Interpore 11:00 AM – 12:20 PM Lunch Break MS 01 Session (1): Pore-Scale Modeling and Algorithms for Porous Media Flow MS 01 Chair: Prof. Shuyu Sun, KAUST Physical and Numerical Simulation of Microscale Porous Flow using 3D printed rock and DRP, Prof. Rui Song (Chinese Academy of Sciences, China) On the Filtration of Oily Water Systems Using Membranes: Micro Fates, and Macro Model, Dr. Amgad Salama (University of Regina, Canada) 1:00 PM – 1:20 PM Medial Access Path Search (MAPS) for Pore-Network Extraction, Prof. Yuze Zhang (Nanjing Normal University, China) Numerical Methods for Diffuse Interface Model with Application to Multiphase Flows, Prof. Abdullah Shah (KFUPM) 1:40 PM – 2:00 PM Thermodynamic Analysis of Quasi-static Pore-Network Modeling of Phase Equilibrium, Ronghao Cui (PhD candidate, KAUST) MS 02 : Reservoir Geomechanics MS 02 Chair: Dr. Osman Hamid, Saudi Aramco 2:00 PM – 2:20 PM A true pore surface roughness measurement technique: 3D Pore Surface Roughness (3D PSR) from X-ray μ-CT image data, Dr. Hyung T. Kwak (Saudi Aramco) 2:40 PM – 3:00 PM Break & Online Networking Prof. Abdallah Ghreizy, American University of Beirut (AUB), Title: TBD 3:20 PM – 4:00 PM Plenary Talk: Poromechanics, Prof. Younane Abousleiman (University of Oklahoma, Aramco Services Company) | 10:00 AM - 11:00 AM | Keynote Speech (2): Prof. Majid Hassanizadeh, Utrecht University, | |
| MS 01 Session (1): Pore-Scale Modeling and Algorithms for Porous Media Flow MS 01 Chair: Prof. Shuyu Sun, KAUST Physical and Numerical Simulation of Microscale Porous Flow using 3D printed rock and DRP, Prof. Rui Song (Chinese Academy of Sciences, China) On the Filtration of Oily Water Systems Using Membranes: Micro Fates, and Macro Model, Dr. Amgad Salama (University of Regina, Canada) 1:00 PM – 1:20 PM Medial Access Path Search (MAPS) for Pore-Network Extraction, Prof. Yuze Zhang (Nanjing Normal University, China) Numerical Methods for Diffuse Interface Model with Application to Multiphase Flows, Prof. Abdullah Shah (KFUPM) Thermodynamic Analysis of Quasi-static Pore-Network Modeling of Phase Equilibrium, Ronghao Cui (PhD candidate, KAUST) MS 02 : Reservoir Geomechanics MS 02 Chair: Dr. Osman Hamid, Saudi Aramco 2:00 PM – 2:20 PM Pore Size and Pore Throat Damage Mechanics, Dr. Osman Hamid (Saudi Aramco) A true pore surface roughness measurement technique: 3D Pore Surface Roughness (3D PSR) from X-ray μ-CT image data, Dr. Hyung T. Kwak (Saudi Aramco) 2:40 PM – 3:00 PM Break & Online Networking Prof. Abdallah Ghreizy, American University of Beirut (AUB), Title: TBD 3:20 PM – 4:00 PM Comparison of Flow-Mechanics, Prof. Younane Abousleiman (University of Oklahoma, Aramco Services Company)) | | Managing Director of Interpore | |
| MS 01 Chair: Prof. Shuyu Sun, KAUST Physical and Numerical Simulation of Microscale Porous Flow using 3D printed rock and DRP, Prof. Rui Song (Chinese Academy of Sciences, China) On the Filtration of Oily Water Systems Using Membranes: Micro Fates, and Macro Model, Dr. Amgad Salama (University of Regina, Canada) 1:00 PM – 1:20 PM Medial Access Path Search (MAPS) for Pore-Network Extraction, Prof. Yuze Zhang (Nanjing Normal University, China) Numerical Methods for Diffuse Interface Model with Application to Multiphase Flows, Prof. Abdullah Shah (KFUPM) 1:40 PM – 2:00 PM Thermodynamic Analysis of Quasi-static Pore-Network Modeling of Phase Equilibrium, Ronghao Cui (PhD candidate, KAUST) MS 02 : Reservoir Geomechanics MS 02 Chair: Dr. Osman Hamid, Saudi Aramco 2:00 PM – 2:20 PM Pore Size and Pore Throat Damage Mechanics, Dr. Osman Hamid (Saudi Aramco) A true pore surface roughness measurement technique: 3D Pore Surface Roughness (3D PSR) from X-ray μ-CT image data, Dr. Hyung T. Kwak (Saudi Aramco) 2:40 PM – 3:00 PM Break & Online Networking Prof. Abdallah Ghreizy, American University of Beirut (AUB), Title: TBD Plenary Talk: Poromechanics, Prof. Younane Abousleiman (University of Oklahoma, Aramco Services Company) Comparison of Elow-Mechanics Iterative Coupling Schemes for | 11:00 AM – 12:20 PM | Lunch Break | |
| Physical and Numerical Simulation of Microscale Porous Flow using 3D printed rock and DRP, Prof. Rui Song (Chinese Academy of Sciences, China) On the Filtration of Oily Water Systems Using Membranes: Micro Fates, and Macro Model, Dr. Amgad Salama (University of Regina, Canada) 1:00 PM – 1:20 PM 1:20 PM – 1:40 PM 1:20 PM – 1:40 PM 1:40 PM – 2:00 PM Thermodynamic Analysis of Quasi-static Pore-Network Modeling of Phase Equilibrium, Ronghao Cui (PhD candidate, KAUST) MS 02 : Reservoir Geomechanics MS 02 Chair: Dr. Osman Hamid, Saudi Aramco 2:00 PM – 2:20 PM 2:20 PM – 2:40 PM 3:20 PM – 3:00 PM 3:20 PM – 3:20 PM 3:20 PM – 3:20 PM 3:20 PM – 4:00 PM Physical and Numerical Simulation of Microscale Porous Flow using 3D printed rock and DRP, Prof. Rui Song (Chinese Academy of Sciences, China) On the Filtration of Oily Water Systems Using Membranes: Micro Fates, and Macro Model, Dr. Amgad Salama (University of Regina, Canada) Medial Access Path Search (MAPS) for Pore-Network Extraction, Prof. Abdullah Shah (KFUPM) Thermodynamic Analysis of Quasi-static Pore-Network Modeling of Phase Equilibrium, Ronghao Cui (PhD candidate, KAUST) MS 02 : Reservoir Geomechanics MS 02 Chair: Dr. Osman Hamid, Saudi Aramco 2:00 PM – 2:20 PM A true pore surface roughness measurement technique: 3D Pore Surface Roughness (3D PSR) from X-ray μ-CT image data, Dr. Hyung T. Kwak (Saudi Aramco) Break & Online Networking Prof. Abdallah Ghreizy, American University of Beirut (AUB), Title: TBD Plenary Talk: Poromechanics, Prof. Younane Abousleiman (University of Oklahoma, Aramco Services Company) Comparison of Elow-Mechanics Iterative Coupling Schemes for | MS 01 Session (1): Pore | -Scale Modeling and Algorithms for Porous Media Flow | |
| 12:20 PM – 12:40 PM 3D printed rock and DRP, Prof. Rui Song (Chinese Academy of Sciences, China) On the Filtration of Oily Water Systems Using Membranes: Micro Fates, and Macro Model, Dr. Amgad Salama (University of Regina, Canada) 1:00 PM – 1:20 PM Medial Access Path Search (MAPS) for Pore-Network Extraction, Prof. Yuze Zhang (Nanjing Normal University, China) Numerical Methods for Diffuse Interface Model with Application to Multiphase Flows, Prof. Abdullah Shah (KFUPM) 1:40 PM – 2:00 PM Thermodynamic Analysis of Quasi-static Pore-Network Modeling of Phase Equilibrium, Ronghao Cui (PhD candidate, KAUST) MS 02 : Reservoir Geomechanics MS 02 Chair: Dr. Osman Hamid, Saudi Aramco 2:00 PM – 2:20 PM Pore Size and Pore Throat Damage Mechanics, Dr. Osman Hamid (Saudi Aramco) A true pore surface roughness measurement technique: 3D Pore Surface Roughness (3D PSR) from X-ray μ-CT image data, Dr. Hyung T. Kwak (Saudi Aramco) 2:40 PM – 3:00 PM Break & Online Networking Prof. Abdallah Ghreizy, American University of Beirut (AUB), Title: TBD Plenary Talk: Poromechanics, Prof. Younane Abousleiman (University of Oklahoma, Aramco Services Company) Comparison of Flow-Mechanics Iterative Counling Schemes for | MS 01 Chair: Prof. Shuy | u Sun, KAUST | |
| Sciences, China) On the Filtration of Oily Water Systems Using Membranes: Micro Fates, and Macro Model, Dr. Amgad Salama (University of Regina, Canada) 1:00 PM – 1:20 PM Medial Access Path Search (MAPS) for Pore-Network Extraction, Prof. Yuze Zhang (Nanjing Normal University, China) Numerical Methods for Diffuse Interface Model with Application to Multiphase Flows, Prof. Abdullah Shah (KFUPM) 1:40 PM – 2:00 PM Thermodynamic Analysis of Quasi-static Pore-Network Modeling of Phase Equilibrium, Ronghao Cui (PhD candidate, KAUST) MS 02 : Reservoir Geomechanics MS 02 Chair: Dr. Osman Hamid, Saudi Aramco 2:00 PM – 2:20 PM Pore Size and Pore Throat Damage Mechanics, Dr. Osman Hamid (Saudi Aramco) A true pore surface roughness measurement technique: 3D Pore Surface Roughness (3D PSR) from X-ray µ-CT image data, Dr. Hyung T. Kwak (Saudi Aramco) 2:40 PM – 3:00 PM Break & Online Networking 3:00 PM – 3:20 PM Prof. Abdallah Ghreizy, American University of Beirut (AUB), Title: TBD 3:20 PM – 4:00 PM Comparison of Flow-Mechanics Iterative Coupling Schemes for | | Physical and Numerical Simulation of Microscale Porous Flow using | |
| On the Filtration of Oily Water Systems Using Membranes: Micro Fates, and Macro Model, Dr. Amgad Salama (University of Regina, Canada) 1:00 PM – 1:20 PM Medial Access Path Search (MAPS) for Pore-Network Extraction, Prof. Yuze Zhang (Nanjing Normal University, China) Numerical Methods for Diffuse Interface Model with Application to Multiphase Flows, Prof. Abdullah Shah (KFUPM) 1:40 PM – 2:00 PM Thermodynamic Analysis of Quasi-static Pore-Network Modeling of Phase Equilibrium, Ronghao Cui (PhD candidate, KAUST) MS 02 : Reservoir Geomechanics MS 02 Chair: Dr. Osman Hamid, Saudi Aramco 2:00 PM – 2:20 PM Pore Size and Pore Throat Damage Mechanics, Dr. Osman Hamid (Saudi Aramco) A true pore surface roughness measurement technique: 3D Pore Surface Roughness (3D PSR) from X-ray μ-CT image data, Dr. Hyung T. Kwak (Saudi Aramco) 2:40 PM – 3:00 PM Break & Online Networking 3:00 PM – 3:20 PM Prof. Abdallah Ghreizy, American University of Beirut (AUB), Title: TBD Plenary Talk: Poromechanics, Prof. Younane Abousleiman (University of Oklahoma, Aramco Services Company) Comparison of Flow-Mechanics Iterative Coupling Schemes for | 12:20 PM – 12:40 PM | 3D printed rock and DRP, Prof. Rui Song (Chinese Academy of | |
| 12:40 PM – 1:00 PM Fates, and Macro Model, Dr. Amgad Salama (University of Regina, Canada) 1:00 PM – 1:20 PM Medial Access Path Search (MAPS) for Pore-Network Extraction, Prof. Yuze Zhang (Nanjing Normal University, China) Numerical Methods for Diffuse Interface Model with Application to Multiphase Flows, Prof. Abdullah Shah (KFUPM) 1:40 PM – 2:00 PM Thermodynamic Analysis of Quasi-static Pore-Network Modeling of Phase Equilibrium, Ronghao Cui (PhD candidate, KAUST) MS 02 : Reservoir Geomechanics MS 02 Chair: Dr. Osman Hamid, Saudi Aramco 2:00 PM – 2:20 PM Pore Size and Pore Throat Damage Mechanics, Dr. Osman Hamid (Saudi Aramco) A true pore surface roughness measurement technique: 3D Pore Surface Roughness (3D PSR) from X-ray μ-CT image data, Dr. Hyung T. Kwak (Saudi Aramco) 2:40 PM – 3:00 PM Break & Online Networking 3:00 PM – 3:20 PM Prof. Abdallah Ghreizy, American University of Beirut (AUB), Title: TBD 3:20 PM – 4:00 PM Comparison of Flow-Mechanics Iterative Coupling Schemes for | | Sciences, China) | |
| Canada) 1:00 PM – 1:20 PM Medial Access Path Search (MAPS) for Pore-Network Extraction, Prof. Yuze Zhang (Nanjing Normal University, China) Numerical Methods for Diffuse Interface Model with Application to Multiphase Flows, Prof. Abdullah Shah (KFUPM) 1:40 PM – 2:00 PM Thermodynamic Analysis of Quasi-static Pore-Network Modeling of Phase Equilibrium, Ronghao Cui (PhD candidate, KAUST) MS 02 : Reservoir Geomechanics MS 02 Chair: Dr. Osman Hamid, Saudi Aramco 2:00 PM – 2:20 PM Pore Size and Pore Throat Damage Mechanics, Dr. Osman Hamid (Saudi Aramco) A true pore surface roughness measurement technique: 3D Pore Surface Roughness (3D PSR) from X-ray μ-CT image data, Dr. Hyung T. Kwak (Saudi Aramco) 2:40 PM – 3:00 PM Break & Online Networking 3:00 PM – 3:20 PM Prof. Abdallah Ghreizy, American University of Beirut (AUB), Title: TBD 3:20 PM – 4:00 PM Plenary Talk: Poromechanics, Prof. Younane Abousleiman (University of Oklahoma, Aramco Services Company) | | On the Filtration of Oily Water Systems Using Membranes: Micro | |
| 1:00 PM – 1:20 PM Medial Access Path Search (MAPS) for Pore-Network Extraction, Prof. Yuze Zhang (Nanjing Normal University, China) Numerical Methods for Diffuse Interface Model with Application to Multiphase Flows, Prof. Abdullah Shah (KFUPM) 1:40 PM – 2:00 PM Thermodynamic Analysis of Quasi-static Pore-Network Modeling of Phase Equilibrium, Ronghao Cui (PhD candidate, KAUST) MS 02 : Reservoir Geomechanics MS 02 Chair: Dr. Osman Hamid, Saudi Aramco 2:00 PM – 2:20 PM Pore Size and Pore Throat Damage Mechanics, Dr. Osman Hamid (Saudi Aramco) A true pore surface roughness measurement technique: 3D Pore Surface Roughness (3D PSR) from X-ray μ-CT image data, Dr. Hyung T. Kwak (Saudi Aramco) 2:40 PM – 3:00 PM Break & Online Networking 3:00 PM – 3:20 PM Plenary Talk: Poromechanics, Prof. Younane Abousleiman (University of Oklahoma, Aramco Services Company) Comparison of Flow-Mechanics Iterative Coupling Schemes for | 12:40 PM – 1:00 PM | Fates, and Macro Model, Dr. Amgad Salama (University of Regina, | |
| 1:20 PM – 1:20 PM Prof. Yuze Zhang (Nanjing Normal University, China) Numerical Methods for Diffuse Interface Model with Application to Multiphase Flows, Prof. Abdullah Shah (KFUPM) 1:40 PM – 2:00 PM Thermodynamic Analysis of Quasi-static Pore-Network Modeling of Phase Equilibrium, Ronghao Cui (PhD candidate, KAUST) MS 02 : Reservoir Geomechanics MS 02 Chair: Dr. Osman Hamid, Saudi Aramco 2:00 PM – 2:20 PM Pore Size and Pore Throat Damage Mechanics, Dr. Osman Hamid (Saudi Aramco) A true pore surface roughness measurement technique: 3D Pore Surface Roughness (3D PSR) from X-ray μ-CT image data, Dr. Hyung T. Kwak (Saudi Aramco) 2:40 PM – 3:00 PM Break & Online Networking 3:00 PM – 3:20 PM Plenary Talk: Poromechanics, Prof. Younane Abousleiman (University of Oklahoma, Aramco Services Company) Comparison of Flow-Mechanics Iterative Coupling Schemes for | | Canada) | |
| Prof. Yuze Zhang (Nanjing Normal University, China) 1:20 PM – 1:40 PM Numerical Methods for Diffuse Interface Model with Application to Multiphase Flows, Prof. Abdullah Shah (KFUPM) 1:40 PM – 2:00 PM Thermodynamic Analysis of Quasi-static Pore-Network Modeling of Phase Equilibrium, Ronghao Cui (PhD candidate, KAUST) MS 02 : Reservoir Geomechanics MS 02 Chair: Dr. Osman Hamid, Saudi Aramco 2:00 PM – 2:20 PM Pore Size and Pore Throat Damage Mechanics, Dr. Osman Hamid (Saudi Aramco) A true pore surface roughness measurement technique: 3D Pore Surface Roughness (3D PSR) from X-ray μ-CT image data, Dr. Hyung T. Kwak (Saudi Aramco) 2:40 PM – 3:00 PM Break & Online Networking 3:00 PM – 3:20 PM Prof. Abdallah Ghreizy, American University of Beirut (AUB), Title: TBD Plenary Talk: Poromechanics, Prof. Younane Abousleiman (University of Oklahoma, Aramco Services Company) Comparison of Flow-Mechanics Iterative Coupling Schemes for | 1.00 PM 1.20 PM | Medial Access Path Search (MAPS) for Pore-Network Extraction, | |
| 1:20 PM – 1:40 PM Multiphase Flows, Prof. Abdullah Shah (KFUPM) 1:40 PM – 2:00 PM Thermodynamic Analysis of Quasi-static Pore-Network Modeling of Phase Equilibrium, Ronghao Cui (PhD candidate, KAUST) MS 02 : Reservoir Geomechanics MS 02 Chair: Dr. Osman Hamid, Saudi Aramco 2:00 PM – 2:20 PM Pore Size and Pore Throat Damage Mechanics, Dr. Osman Hamid (Saudi Aramco) A true pore surface roughness measurement technique: 3D Pore Surface Roughness (3D PSR) from X-ray μ-CT image data, Dr. Hyung T. Kwak (Saudi Aramco) 2:40 PM – 3:00 PM Break & Online Networking 3:00 PM – 3:20 PM Prof. Abdallah Ghreizy, American University of Beirut (AUB), Title: TBD Plenary Talk: Poromechanics, Prof. Younane Abousleiman (University of Oklahoma, Aramco Services Company) Comparison of Flow-Mechanics Iterative Coupling Schemes for | 1.00 FM - 1.20 FM | Prof. Yuze Zhang (Nanjing Normal University, China) | |
| Multiphase Flows, Prof. Abdullah Shah (KFUPM) 1:40 PM – 2:00 PM Thermodynamic Analysis of Quasi-static Pore-Network Modeling of Phase Equilibrium, Ronghao Cui (PhD candidate, KAUST) MS 02 : Reservoir Geomechanics MS 02 Chair: Dr. Osman Hamid, Saudi Aramco 2:00 PM – 2:20 PM Pore Size and Pore Throat Damage Mechanics, Dr. Osman Hamid (Saudi Aramco) A true pore surface roughness measurement technique: 3D Pore Surface Roughness (3D PSR) from X-ray μ-CT image data, Dr. Hyung T. Kwak (Saudi Aramco) 2:40 PM – 3:00 PM Break & Online Networking Prof. Abdallah Ghreizy, American University of Beirut (AUB), Title: TBD 3:20 PM – 4:00 PM Plenary Talk: Poromechanics, Prof. Younane Abousleiman (University of Oklahoma, Aramco Services Company) Comparison of Flow-Mechanics Iterative Coupling Schemes for | 1.20 PM 1.40 PM | Numerical Methods for Diffuse Interface Model with Application to | |
| 1:40 PM – 2:00 PM Phase Equilibrium, Ronghao Cui (PhD candidate, KAUST) MS 02 : Reservoir Geomechanics MS 02 Chair: Dr. Osman Hamid, Saudi Aramco 2:00 PM – 2:20 PM Pore Size and Pore Throat Damage Mechanics, Dr. Osman Hamid (Saudi Aramco) A true pore surface roughness measurement technique: 3D Pore Surface Roughness (3D PSR) from X-ray μ-CT image data, Dr. Hyung T. Kwak (Saudi Aramco) 2:40 PM – 3:00 PM Break & Online Networking 3:00 PM – 3:20 PM Prof. Abdallah Ghreizy, American University of Beirut (AUB), Title: TBD Plenary Talk: Poromechanics, Prof. Younane Abousleiman (University of Oklahoma, Aramco Services Company) Comparison of Flow-Mechanics Iterative Coupling Schemes for | 1.20 FM - 1.40 FM | Multiphase Flows, Prof. Abdullah Shah (KFUPM) | |
| Phase Equilibrium, Ronghao Cui (PhD candidate, KAUST) MS 02 : Reservoir Geomechanics MS 02 Chair: Dr. Osman Hamid, Saudi Aramco 2:00 PM – 2:20 PM Pore Size and Pore Throat Damage Mechanics, Dr. Osman Hamid (Saudi Aramco) A true pore surface roughness measurement technique: 3D Pore Surface Roughness (3D PSR) from X-ray μ-CT image data, Dr. Hyung T. Kwak (Saudi Aramco) 2:40 PM – 3:00 PM Break & Online Networking 3:00 PM – 3:20 PM Prof. Abdallah Ghreizy, American University of Beirut (AUB), Title: TBD 3:20 PM – 4:00 PM Plenary Talk: Poromechanics, Prof. Younane Abousleiman (University of Oklahoma, Aramco Services Company) Comparison of Flow-Mechanics Iterative Coupling Schemes for | 1:40 PM 2:00 PM | Thermodynamic Analysis of Quasi-static Pore-Network Modeling of | |
| MS 02 Chair: Dr. Osman Hamid, Saudi Aramco 2:00 PM – 2:20 PM Pore Size and Pore Throat Damage Mechanics, Dr. Osman Hamid (Saudi Aramco) A true pore surface roughness measurement technique: 3D Pore Surface Roughness (3D PSR) from X-ray μ-CT image data, Dr. Hyung T. Kwak (Saudi Aramco) 2:40 PM – 3:00 PM Break & Online Networking Prof. Abdallah Ghreizy, American University of Beirut (AUB), Title: TBD 3:20 PM – 4:00 PM Plenary Talk: Poromechanics, Prof. Younane Abousleiman (University of Oklahoma, Aramco Services Company) Comparison of Flow-Mechanics Iterative Coupling Schemes for | 1.40 FM = 2.00 FM | Phase Equilibrium, Ronghao Cui (PhD candidate, KAUST) | |
| 2:00 PM – 2:20 PM Pore Size and Pore Throat Damage Mechanics, Dr. Osman Hamid (Saudi Aramco) A true pore surface roughness measurement technique: 3D Pore Surface Roughness (3D PSR) from X-ray μ-CT image data, Dr. Hyung T. Kwak (Saudi Aramco) 2:40 PM – 3:00 PM Break & Online Networking Prof. Abdallah Ghreizy, American University of Beirut (AUB), Title: TBD Plenary Talk: Poromechanics, Prof. Younane Abousleiman (University of Oklahoma, Aramco Services Company) Comparison of Flow-Mechanics Iterative Coupling Schemes for | MS 02 : Reservoir Geomechanics | | |
| (Saudi Aramco) A true pore surface roughness measurement technique: 3D Pore Surface Roughness (3D PSR) from X-ray μ-CT image data, Dr. Hyung T. Kwak (Saudi Aramco) 2:40 PM – 3:00 PM Break & Online Networking Prof. Abdallah Ghreizy, American University of Beirut (AUB), Title: TBD Plenary Talk: Poromechanics, Prof. Younane Abousleiman (University of Oklahoma, Aramco Services Company) Comparison of Flow-Mechanics Iterative Coupling Schemes for | MS 02 Chair: Dr. Osman Hamid, Saudi Aramco | | |
| (Saudi Aramco) A true pore surface roughness measurement technique: 3D Pore 2:20 PM – 2:40 PM Surface Roughness (3D PSR) from X-ray μ-CT image data, Dr. Hyung T. Kwak (Saudi Aramco) 3:40 PM – 3:00 PM Break & Online Networking Prof. Abdallah Ghreizy, American University of Beirut (AUB), Title: TBD Plenary Talk: Poromechanics, Prof. Younane Abousleiman (University of Oklahoma, Aramco Services Company) Comparison of Flow-Mechanics Iterative Coupling Schemes for | 2:00 PM = 2:20 PM | Pore Size and Pore Throat Damage Mechanics, Dr. Osman Hamid | |
| 2:20 PM – 2:40 PM Surface Roughness (3D PSR) from X-ray μ-CT image data, Dr. Hyung T. Kwak (Saudi Aramco) 3:40 PM – 3:00 PM Break & Online Networking Prof. Abdallah Ghreizy, American University of Beirut (AUB), Title: TBD Plenary Talk: Poromechanics, Prof. Younane Abousleiman (University of Oklahoma, Aramco Services Company) Comparison of Flow-Mechanics Iterative Coupling Schemes for | 2:00 FIVI - 2:20 FIVI | (Saudi Aramco) | |
| Hyung T. Kwak (Saudi Aramco) 2:40 PM – 3:00 PM Break & Online Networking Prof. Abdallah Ghreizy, American University of Beirut (AUB), Title: TBD Plenary Talk: Poromechanics, Prof. Younane Abousleiman (University of Oklahoma, Aramco Services Company) Comparison of Flow-Mechanics Iterative Coupling Schemes for | 2:20 PM – 2:40 PM | A true pore surface roughness measurement technique: 3D Pore | |
| 2:40 PM – 3:00 PM Break & Online Networking Prof. Abdallah Ghreizy, American University of Beirut (AUB), Title: TBD Plenary Talk: Poromechanics, Prof. Younane Abousleiman (University of Oklahoma, Aramco Services Company) Comparison of Flow-Mechanics Iterative Coupling Schemes for | | Surface Roughness (3D PSR) from X-ray μ-CT image data, Dr. | |
| 3:00 PM – 3:20 PM Prof. Abdallah Ghreizy, American University of Beirut (AUB), Title: TBD Plenary Talk: Poromechanics, Prof. Younane Abousleiman (University of Oklahoma, Aramco Services Company) Comparison of Flow-Mechanics Iterative Coupling Schemes for | | Hyung T. Kwak (Saudi Aramco) | |
| TBD 3:20 PM – 3:20 PM TBD Plenary Talk: Poromechanics, Prof. Younane Abousleiman (University of Oklahoma, Aramco Services Company) Comparison of Flow-Mechanics Iterative Coupling Schemes for | 2:40 PM – 3:00 PM | Break & Online Networking | |
| 3:20 PM – 4:00 PM Plenary Talk: Poromechanics, Prof. Younane Abousleiman (University of Oklahoma, Aramco Services Company) Comparison of Flow-Mechanics Iterative Coupling Schemes for | 3:00 PM – 3:20 PM | Prof. Abdallah Ghreizy, American University of Beirut (AUB), Title: | |
| 3:20 PM = 4:00 PM (University of Oklahoma, Aramco Services Company) Comparison of Flow-Mechanics Iterative Coupling Schemes for | | TBD | |
| (University of Oklahoma, Aramco Services Company) Comparison of Flow-Mechanics Iterative Coupling Schemes for | 3·20 PM _ 4·00 PM | Plenary Talk: Poromechanics, Prof. Younane Abousleiman | |
| Comparison of Flow-Mechanics Iterative Coupling Schemes for | 3.20 | 1 37 | |
| 4'()() P(V) = 4'7() P(V) | 4:00 PM – 4:20 PM | · | |
| Fractured Poroelastic Media, Dr. Tameem Almani (Saudi Aramco) | 7.00 FM = 4 .20 FM | Fractured Poroelastic Media, Dr. Tameem Almani (Saudi Aramco) | |

Day (2): Tuesday, November 28, 2023

| Opening Remarks: Welcome to the 2 nd Interpore Saudi Chapter Annual Meeting (Day 2) – Dr. Tameem Amani MS 03 Session (1): Uncertainty in Reservoir Modeling: Where Challenges are Opportunities MS 03 Chair: Dr. Ali Alturki, Saudi Aramco Optimization of Well Placement and Design For Full-Field Development using Mathematical Optimization and Machine Learning, Mr. Menhal Ismael (Saudi Aramco, PhD candidate, KFUPM) 8:20 AM – 8:40 AM Physics-Aware Data-Driven Approaches for Reservoir Assessment, Alanood Alrassan (Saudi Aramco) 8:40 AM – 9:00 AM 8:40 AM – 9:00 AM Proceed According Sees and Proceeding Sees and Sees and Proceeding Sees and Sees a | | | |
|--|--|--|--|
| MS 03 Chair: Dr. Ali Alturki, Saudi Aramco Optimization of Well Placement and Design For Full-Field Development using Mathematical Optimization and Machine Learning, Mr. Menhal Ismael (Saudi Aramco, PhD candidate, KFUPM) 8:20 AM – 8:40 AM Physics-Aware Data-Driven Approaches for Reservoir Assessment, Alanood Alrassan (Saudi Aramco) 8:40 AM – 9:00 AM Physics-Aware Data-Driven Approaches for Reservoir Assessment, Alanood Alrassan (Saudi Aramco) 8:40 AM – 9:20 AM Physics-Aware Data-Driven Approaches for Reservoir Assessment, Alanood Alrassan (Saudi Aramco) 8:40 AM – 9:20 AM Physics-Aware Data-Driven Approaches for Reservoir Assessment, Alanood Alrassan (Saudi Aramco) 8:40 AM – 9:20 AM Reservoir Modeling (KFUPM) 8:20 AM – 10:20 AM Reservoir Modeling: Where Challenges are Opportunities MS 03 Session (2): Uncertainty in Reservoir Modelis' Calibration with Ensemble Methods, Dr. Ali Alturki (Saudi Aramco) 10:20 AM – 10:40 AM Unmerical Reservoir Models' Calibration with Ensemble Methods, Dr. Ali Alturki (Saudi Aramco) 10:40 AM – 11:00 AM Reservoir Simulation and High Performance computing, Dr. Majdi Baddourah (Saudi Aramco) 11:20 AM – 12:40 PM Lunch Break MS 04 Chair: Dr. Manal Alotaibi, KFUPM 12:40 PM – 1:00 PM Modeling and Simulation of Interfacial Dynamics with Soluble Surfactants, Dr. Guangpu Zhu (Nanyang Institute of Technology, Singapore) Parallel Multiscale Methods on High-Performace-Computing (HPC) Architectures: Design Aspects and Performance Analysis, Dr. Abdulrahman Manea (Saudi Aramco) 1:20 PM – 1:40 PM Leaching and Accelerated Carbonation of Concrete, Dr. Michal Toth, Heidelberg University 1:40 PM – 2:00 PM Prof. Bicheng Yan (KAUST), Title: TBD Supporting Reservoir Simulation Models: Challenges and Opportunities, Ahmad Shubbar (Saudi Aramco) Dr. Tao Zhang (KAUST), Title: TBD | 7:45 AM – 8:00 AM | Opening Remarks: Welcome to the 2 nd Interpore Saudi Chapter Annual Meeting (Day 2) – Dr. Tameem Amani | |
| 8:00 AM – 8:20 AM B:00 AM – 8:20 AM Development using Mathematical Optimization and Machine Learning, Mr. Menhal Ismael (Saudi Aramco, PhD candidate, KFUPM) Physics-Aware Data-Driven Approaches for Reservoir Assessment, Alanood Alrassan (Saudi Aramco) 8:40 AM – 9:00 AM Break & Online Networking 9:00 AM – 9:20 AM Break & Online Networking Keynote Speech (3): Prof. Kundan Kumar, University of Bergen, Norway MS 03 Session (2): Uncertainty in Reservoir Modeling: Where Challenges are Opportunities MS 03 Chair: Dr. Ali Alturki, Saudi Aramco 10:20 AM – 10:40 AM 10:40 AM – 11:00 AM GPU Computing for Reservoir Simulation, Osaid Hajjar (Saudi Aramco) 11:00 AM – 11:20 AM Reservoir Simulation and High Performance computing, Dr. Majdi Baddourah (Saudi Aramco) 11:20 AM – 12:40 PM Lunch Break MS 04 : Numerical Insights into Multiphase Flow Phenomena in Porous Media MS 04 Chair: Dr. Manal Alotaibi, KFUPM Modeling and Simulation of Interfacial Dynamics with Soluble Surfactants, Dr. Guangpu Zhu (Nanyang Institute of Technology, Singapore) Parallel Multiscale Methods on High-Performance Computing (HPC) Architectures: Design Aspects and Performance Analysis, Dr. Abdulrahman Manea (Saudi Aramco) 1:20 PM – 1:40 PM Leaching and Accelerated Carbonation of Concrete, Dr. Michal Toth, Heidelberg University Supporting Reservoir Simulation Models: Challenges and Opportunities, Ahmad Shubbar (Saudi Aramco) Dr. Tao Zhang (KAUST), Title: TBD | MS 03 Session (1): Uncertainty in Reservoir Modeling: Where Challenges are Opportunities | | |
| 8:00 AM – 8:20 AM Development using Mathematical Optimization and Machine Learning, Mr. Menhal Ismael (Saudi Aramco, PhD candidate, KFUPM) 8:20 AM – 8:40 AM Risportance Datas-Driven Approaches for Reservoir Assessment, Alanood Alrassan (Saudi Aramco) 8:40 AM – 9:00 AM Risportance Datasessing Leakage Rate in Geological CO2 Sequestration under Uncertainty, Dr. Ben Mansour Dia (KFUPM) 9:00 AM – 9:20 AM Break & Online Networking Keynote Speech (3): Prof. Kundan Kumar, University of Bergen, Norway MS 03 Session (2): Uncertainty in Reservoir Modeling: Where Challenges are Opportunities MS 03 Chair: Dr. Ali Alturki, Saudi Aramco 10:20 AM – 10:40 AM Divertical Reservoir Models' Calibration with Ensemble Methods, Dr. Ali Alturki (Saudi Aramco) 10:40 AM – 11:00 AM GPU Computing for Reservoir Simulation, Osaid Hajjar (Saudi Aramco) 11:00 AM – 11:20 AM Reservoir Simulation and High Performance computing, Dr. Majdi Baddourah (Saudi Aramco) 11:20 AM – 12:40 PM Lunch Break MS 04 : Numerical Insights into Multiphase Flow Phenomena in Porous Media MS 04 : Numerical Insights into Multiphase Flow Phenomena in Porous Media MS 04 Chair: Dr. Manal Alotaibi, KFUPM Modeling and Simulation of Interfacial Dynamics with Soluble Surfactants, Dr. Guangpu Zhu (Nanyang Institute of Technology, Singapore) Parallel Multiscale Methods on High-Performance-Computing (HPC) Architectures: Design Aspects and Performance Analysis, Dr. Abdulrahman Manea (Saudi Aramco) 1:20 PM – 1:40 PM Leaching and Accelerated Carbonation of Concrete, Dr. Michal Toth, Heidelberg University 1:40 PM – 2:20 PM Prof. Bicheng Yan (KAUST), Title: TBD Supportunities, Ahmad Shubbar (Saudi Aramco) Dr. Tao Zhang (KAUST), Title: TBD | | | |
| Alanood Alrassan (Saudi Aramco) 8:40 AM – 9:00 AM Assessing Leakage Rate in Geological CO2 Sequestration under Uncertainty, Dr. Ben Mansour Dia (KFUPM) 9:00 AM – 9:20 AM Break & Online Networking Keynote Speech (3): Prof. Kundan Kumar, University of Bergen, Norway MS 03 Session (2): Uncertainty in Reservoir Modeling: Where Challenges are Opportunities MS 03 Chair: Dr. Ali Alturki, Saudi Aramco 10:20 AM – 10:40 AM Numerical Reservoir Models' Calibration with Ensemble Methods, Dr. Ali Alturki (Saudi Aramco) GPU Computing for Reservoir Simulation, Osaid Hajjar (Saudi Aramco) Reservoir Simulation and High Performance computing, Dr. Majdi Baddourah (Saudi Aramco) 11:20 AM – 11:20 AM 88 O4 : Numerical Insights into Multiphase Flow Phenomena in Porous Media MS 04 : Chair: Dr. Manal Alotaibi, KFUPM Modeling and Simulation of Interfacial Dynamics with Soluble Surfactants, Dr. Guangpu Zhu (Nanyang Institute of Technology, Singapore) 1:00 PM – 1:20 PM Abdulrahman Manea (Saudi Aramco) 1:20 PM – 1:40 PM 1:40 PM – 2:00 PM Prof. Bicheng Yan (KAUST), Title: TBD Supporting Reservoir Simulation Models: Challenges and Opportunities, Ahmad Shubbar (Saudi Aramco) | 8:00 AM – 8:20 AM | Development using Mathematical Optimization and Machine | |
| Uncertainty, Dr. Ben Mansour Dia (KFUPM) 9:00 AM – 9:20 AM Break & Online Networking Keynote Speech (3): Prof. Kundan Kumar, University of Bergen, Norway MS 03 Session (2): Uncertainty in Reservoir Modeling: Where Challenges are Opportunities MS 03 Chair: Dr. Ali Alturki, Saudi Aramco Numerical Reservoir Models' Calibration with Ensemble Methods, Dr. Ali Alturki (Saudi Aramco) 10:20 AM – 10:40 AM Or. Ali Alturki (Saudi Aramco) PPU Computing for Reservoir Simulation, Osaid Hajjar (Saudi Aramco) 11:00 AM – 11:20 AM Reservoir Simulation and High Performance computing, Dr. Majdi Baddourah (Saudi Aramco) 11:20 AM – 12:40 PM Lunch Break MS 04: Numerical Insights into Multiphase Flow Phenomena in Porous Media MS 04 Chair: Dr. Manal Alotaibi, KFUPM Modeling and Simulation of Interfacial Dynamics with Soluble Surfactants, Dr. Guangpu Zhu (Nanyang Institute of Technology, Singapore) Parallel Multiscale Methods on High-Performace-Computing (HPC) Architectures: Design Aspects and Performance Analysis, Dr. Abdulrahman Manea (Saudi Aramco) 1:20 PM – 1:40 PM Leaching and Accelerated Carbonation of Concrete, Dr. Michal Toth, Heidelberg University 1:40 PM – 2:20 PM Prof. Bicheng Yan (KAUST), Title: TBD Supporting Reservoir Simulation Models: Challenges and Opportunities, Ahmad Shubbar (Saudi Aramco) | 8:20 AM – 8:40 AM | | |
| 9:20 AM – 10:20 AM Keynote Speech (3): Prof. Kundan Kumar, University of Bergen, Norway MS 03 Session (2): Uncertainty in Reservoir Modeling: Where Challenges are Opportunities MS 03 Chair: Dr. Ali Alturki, Saudi Aramco 10:20 AM – 10:40 AM Dr. Ali Alturki (Saudi Aramco) Reservoir Models' Calibration with Ensemble Methods, Dr. Ali Alturki (Saudi Aramco) GPU Computing for Reservoir Simulation, Osaid Hajjar (Saudi Aramco) Reservoir Simulation and High Performance computing, Dr. Majdi Baddourah (Saudi Aramco) 11:20 AM – 11:20 AM MS 04: Numerical Insights into Multiphase Flow Phenomena in Porous Media MS 04 Chair: Dr. Manal Alotaibi, KFUPM Modeling and Simulation of Interfacial Dynamics with Soluble Surfactants, Dr. Guangpu Zhu (Nanyang Institute of Technology, Singapore) 1:00 PM – 1:20 PM Architectures: Design Aspects and Performance Analysis, Dr. Abdulrahman Manea (Saudi Aramco) Leaching and Accelerated Carbonation of Concrete, Dr. Michal Toth, Heidelberg University 1:40 PM – 2:20 PM Prof. Bicheng Yan (KAUST), Title: TBD Supporting Reservoir Simulation Models: Challenges and Opportunities, Ahmad Shubbar (Saudi Aramco) Dr. Tao Zhang (KAUST), Title: TBD | 8:40 AM – 9:00 AM | | |
| MS 03 Session (2): Uncertainty in Reservoir Modeling: Where Challenges are Opportunities MS 03 Chair: Dr. Ali Alturki, Saudi Aramco 10:20 AM – 10:40 AM 10:40 AM – 11:00 AM 10:40 AM – 11:00 AM 11:00 AM – 11:20 AM Reservoir Simulation, Osaid Hajjar (Saudi Aramco) Reservoir Simulation, Osaid Hajjar (Saudi Aramco) 11:20 AM – 12:40 PM Lunch Break MS 04: Numerical Insights into Multiphase Flow Phenomena in Porous Media MS 04 Chair: Dr. Manal Alotaibi, KFUPM 12:40 PM – 1:00 PM 1:00 PM – 1:20 PM 1:00 PM – 1:20 PM Lunch Break Modeling and Simulation of Interfacial Dynamics with Soluble Surfactants, Dr. Guangpu Zhu (Nanyang Institute of Technology, Singapore) Parallel Multiscale Methods on High-Performace-Computing (HPC) Architectures: Design Aspects and Performance Analysis, Dr. Abdulrahman Manea (Saudi Aramco) 1:20 PM – 1:40 PM Leaching and Accelerated Carbonation of Concrete, Dr. Michal Toth, Heidelberg University 1:40 PM – 2:20 PM Prof. Bicheng Yan (KAUST), Title: TBD 2:20 PM – 2:40 PM Dr. Tao Zhang (KAUST), Title: TBD | 9:00 AM – 9:20 AM | Break & Online Networking | |
| MS 03 Chair: Dr. Ali Alturki, Saudi Aramco 10:20 AM – 10:40 AM 10:40 AM – 11:00 AM 10:40 AM – 11:00 AM Aramco) GPU Computing for Reservoir Simulation, Osaid Hajjar (Saudi Aramco) 11:00 AM – 11:20 AM Reservoir Simulation and High Performance computing, Dr. Majdi Baddourah (Saudi Aramco) 11:20 AM – 12:40 PM Lunch Break MS 04: Numerical Insights into Multiphase Flow Phenomena in Porous Media MS 04 Chair: Dr. Manal Alotaibi, KFUPM Modeling and Simulation of Interfacial Dynamics with Soluble Surfactants, Dr. Guangpu Zhu (Nanyang Institute of Technology, Singapore) Parallel Multiscale Methods on High-Performace-Computing (HPC) Architectures: Design Aspects and Performance Analysis, Dr. Abdulrahman Manea (Saudi Aramco) 1:20 PM – 1:40 PM 1:40 PM – 2:00 PM Prof. Bicheng Yan (KAUST), Title: TBD Supporting Reservoir Simulation Models: Challenges and Opportunities, Ahmad Shubbar (Saudi Aramco) Dr. Tao Zhang (KAUST), Title: TBD | 9:20 AM – 10:20 AM | | |
| 10:20 AM – 10:40 AM Dr. Ali Alturki (Saudi Aramco) GPU Computing for Reservoir Simulation, Osaid Hajjar (Saudi Aramco) 11:00 AM – 11:20 AM Reservoir Simulation and High Performance computing, Dr. Majdi Baddourah (Saudi Aramco) 11:20 AM – 12:40 PM Lunch Break MS 04 : Numerical Insights into Multiphase Flow Phenomena in Porous Media MS 04 Chair: Dr. Manal Alotaibi, KFUPM 12:40 PM – 1:00 PM Modeling and Simulation of Interfacial Dynamics with Soluble Surfactants, Dr. Guangpu Zhu (Nanyang Institute of Technology, Singapore) Parallel Multiscale Methods on High-Performace-Computing (HPC) Architectures: Design Aspects and Performance Analysis, Dr. Abdulrahman Manea (Saudi Aramco) Leaching and Accelerated Carbonation of Concrete, Dr. Michal Toth, Heidelberg University 1:40 PM – 2:00 PM Prof. Bicheng Yan (KAUST), Title: TBD 2:00 PM – 2:20 PM Opportunities, Ahmad Shubbar (Saudi Aramco) Dr. Tao Zhang (KAUST), Title: TBD | | | |
| Aramco) 11:00 AM – 11:20 AM Reservoir Simulation and High Performance computing, Dr. Majdi Baddourah (Saudi Aramco) 11:20 AM – 12:40 PM | 10:20 AM – 10:40 AM | , , | |
| Baddourah (Saudi Aramco) 11:20 AM – 12:40 PM | 10:40 AM – 11:00 AM | | |
| MS 04 : Numerical Insights into Multiphase Flow Phenomena in Porous Media MS 04 Chair: Dr. Manal Alotaibi, KFUPM Modeling and Simulation of Interfacial Dynamics with Soluble Surfactants, Dr. Guangpu Zhu (Nanyang Institute of Technology, Singapore) Parallel Multiscale Methods on High-Performace-Computing (HPC) Architectures: Design Aspects and Performance Analysis, Dr. Abdulrahman Manea (Saudi Aramco) 1:20 PM - 1:40 PM Leaching and Accelerated Carbonation of Concrete, Dr. Michal Toth, Heidelberg University 1:40 PM - 2:00 PM Prof. Bicheng Yan (KAUST), Title: TBD 2:00 PM - 2:20 PM Opportunities, Ahmad Shubbar (Saudi Aramco) 2:20 PM - 2:40 PM Dr. Tao Zhang (KAUST), Title: TBD | 11:00 AM – 11:20 AM | | |
| MS 04 Chair: Dr. Manal Alotaibi, KFUPM 12:40 PM - 1:00 PM | 11:20 AM – 12:40 PM | Lunch Break | |
| Modeling and Simulation of Interfacial Dynamics with Soluble 12:40 PM – 1:00 PM Surfactants, Dr. Guangpu Zhu (Nanyang Institute of Technology, Singapore) Parallel Multiscale Methods on High-Performace-Computing (HPC) Architectures: Design Aspects and Performance Analysis, Dr. Abdulrahman Manea (Saudi Aramco) 1:20 PM – 1:40 PM Leaching and Accelerated Carbonation of Concrete, Dr. Michal Toth, Heidelberg University 1:40 PM – 2:00 PM Prof. Bicheng Yan (KAUST), Title: TBD 2:00 PM – 2:20 PM Opportunities, Ahmad Shubbar (Saudi Aramco) Dr. Tao Zhang (KAUST), Title: TBD | MS 04 : Numerical Insights into Multiphase Flow Phenomena in Porous Media | | |
| 12:40 PM – 1:00 PM Surfactants, Dr. Guangpu Zhu (Nanyang Institute of Technology, Singapore) Parallel Multiscale Methods on High-Performace-Computing (HPC) Architectures: Design Aspects and Performance Analysis, Dr. Abdulrahman Manea (Saudi Aramco) Leaching and Accelerated Carbonation of Concrete, Dr. Michal Toth, Heidelberg University 1:40 PM – 2:00 PM Prof. Bicheng Yan (KAUST), Title: TBD Supporting Reservoir Simulation Models: Challenges and Opportunities, Ahmad Shubbar (Saudi Aramco) 2:20 PM – 2:40 PM Dr. Tao Zhang (KAUST), Title: TBD | MS 04 Chair: Dr. Manal Alotaibi, KFUPM | | |
| 1:00 PM – 1:20 PM Architectures: Design Aspects and Performance Analysis, Dr. Abdulrahman Manea (Saudi Aramco) 1:20 PM – 1:40 PM Leaching and Accelerated Carbonation of Concrete, Dr. Michal Toth, Heidelberg University 1:40 PM – 2:00 PM Prof. Bicheng Yan (KAUST), Title: TBD 2:00 PM – 2:20 PM Supporting Reservoir Simulation Models: Challenges and Opportunities, Ahmad Shubbar (Saudi Aramco) 2:20 PM – 2:40 PM Dr. Tao Zhang (KAUST), Title: TBD | 12:40 PM – 1:00 PM | Surfactants, Dr. Guangpu Zhu (Nanyang Institute of Technology, | |
| 1:20 PM – 1:40 PM Heidelberg University 1:40 PM – 2:00 PM Prof. Bicheng Yan (KAUST), Title: TBD Supporting Reservoir Simulation Models: Challenges and Opportunities, Ahmad Shubbar (Saudi Aramco) 2:20 PM – 2:40 PM Dr. Tao Zhang (KAUST), Title: TBD | 1:00 PM – 1:20 PM | Architectures: Design Aspects and Performance Analysis, Dr. | |
| 2:00 PM – 2:20 PM Supporting Reservoir Simulation Models: Challenges and Opportunities, Ahmad Shubbar (Saudi Aramco) 2:20 PM – 2:40 PM Dr. Tao Zhang (KAUST), Title: TBD | 1:20 PM – 1:40 PM | | |
| 2:00 PM – 2:20 PM Opportunities, Ahmad Shubbar (Saudi Aramco) 2:20 PM – 2:40 PM Dr. Tao Zhang (KAUST), Title: TBD | 1:40 PM – 2:00 PM | Prof. Bicheng Yan (KAUST), Title: TBD | |
| | 2:00 PM – 2:20 PM | 1.1 | |
| 2:40 AM – 3:00 PM Concluding Remarks: Prof. Shuyu Sun & Dr. Tameem Amani | 2:20 PM – 2:40 PM | Dr. Tao Zhang (KAUST), Title: TBD | |
| | 2:40 AM – 3:00 PM | Concluding Remarks: Prof. Shuyu Sun & Dr. Tameem Amani | |

Note: The conference will be held online. The zoom link will be published on the webpage at least 3 days before the start of the conference.