Program-at-a-Glance

Sunday Evening, June 15

5:00 PM-8:00 PM Registration

Monday Morning, June 16

7:30 AM-4:00 PM

8:20 AM Opening Remarks and Welcome

Clint Dawson, University of Texas, Austin

8:30 AM-9:15 AM

IP1 Fluids in Porous Media: Angstroms to Kilometers
John H. Cushman, Purdue University, West Lafayette
Chair: James G. Glimm, State University of New York, Stony Brook

9:15 AM-10:00 AM

IP2 Scale-Up of Flow in Porous Media
David H. Sharp, Los Alamos National Laboratory
Chair: James G. Glimm, State University of New York, Stony Brook

10:00 AM-10:30 AM Coffee

10:30 AM-12:30 PM Concurrent Sessions

MS1 Numerical Simulation of Field-Scale Remediation for Heterogeneous Subsurface Conditions (Part I of II)
Organizer: Jeffery P. Holland, Waterways Experiment Station, U.S. Army Corps of Engineers

MS2 Inverse Methods and History Matching in Flow and Transport
Organizer: Allan Gutjahr, New Mexico Institute of Mining and Technology

MS3 Upscaling Complex Flows in Strongly Heterogeneous Porous Medium
Organizer: Alain P. Bourgeat, Université; St. Etienne, France

MS4 Characteristic Methods for Advection-Dominated Flows
Organizer: Hong Wang, University of South Carolina, Columbia

MS5 Computational Issues in Geostatistical Simulation for Petroleum Reservoir Characterization
Organizer: Timothy C. Coburn, National Renewable Energy Laboratory

MS6 Thermal-Hydrologic Modeling in Geologic Disposal of High-Level Radioactive Waste (Part I of II)
Organizers: Nicholas D. Francis and Bill W. Arnold, Sandia National Laboratories, Albuquerque

MS7 Large-Scale Seismic Modeling
Organizers: Paul L. Stoffa, University of Texas, Austin; and Ken Kelly, Amoco Technology Center

Monday Afternoon, June 16

12:30 PM-2:00 PM Lunch

2:00 PM-2:45 PM

IP3 Effective Coarse Scale Descriptions of Multiphase Displacements in Heterogeneous Reservoirs
Louis J. Durlofsky, Chevron Petroleum Technology Company, La Habra, California
Chair: Michael Christie, BP Exploration

2:45 PM-3:15 PM Coffee

3:15 PM-5:15 PM Concurrent Sessions

MS8 Numerical Solution of Field-Scale Remediation for Heterogeneous Subsurface Conditions (Part II of II)
Organizer: Jeffery P. Holland, Waterways Experiment Station, U.S. Army Corps of Engineers

MS9 Thermal-Hydrologic Modeling in Geologic Disposal of High-Level Radioactive Waste (Part II of II)
Organizers: Nicholas D. Francis and Bill W. Arnold, Sandia National Laboratories, Albuquerque

MS10 Modeling in Heterogeneous and Non-Isotropic Materials
Organizers: Stanly L. Steinberg, University of New Mexico; and Mikhail Shashkov, Los Alamos National Laboratory

MS11 Adaptive Finite Volume/Multigrid Simulation of Variable Density Flows in Porous Media
Organizer: Peter Knabner, University of Erlangen, Germany

MS12 Modeling of Multiscale Phenomena in Porous Media (Part I of IV)
Organizers: Lynn S. Bennethum and Thomas F. Russell, University of Colorado, Denver

MS13 Bayesian Versus Frequentist Methods of Inference (Part I of II)
Organizer: John A. Scales, Colorado School of Mines

MS14 Seismic Imaging and Inversion (Part I of II)
Organizers: Eileen McCarron, Amoco Technology Center; and R. Phillip Bording, University of Texas, Austin

2:45 PM Poster Setup begins

Monday Evening, June 16

5:30 PM-7:30 PM

Poster Session and Welcoming Reception

Tuesday Morning, June 17

7:30 AM-4:00 PM Registration

8:30 AM-9:15 AM

IP4 Uniqueness Conditions in a Hyperbolic Model for Oil

Recovery by Steam Drive
Hans J. van Duijn, Center for Mathematics and Computer Science (CWI), The Netherlands
Chair: Mary F. Wheeler, University of Texas, Austin

9:15-10:00 AM

IP5 Applications of Optimization, Numerical Analysis, and Parallel Processing to Groundwater Remediation
Christine Shoemaker, Cornell University
Chair: Mary F. Wheeler, University of Texas, Austin

10:00 AM-10:30 AM Coffee

10:30 AM-12:30 PM Concurrent Sessions

MS15 Modeling of Multiscale Phenomena in Porous Media (Part II of IV)
Organizers: Lynn S. Bennethum and Thomas F. Russell, University of Colorado, Denver

MS16 Modeling and Analysis of In-Situ Bioremediation Systems
Organizer: Jack X. Xin, University of Arizona

MS17 Optimization Techniques in Groundwater Remediation
Organizer: David E. Dougherty, University of Vermont

MS18 Finite Volume and Mixed Finite Element Methods in Geoscience Applications
Organizer: Ilya D. Mishev, Duke University

MS19 Numerical Modeling of Ocean Circulation (Part I of II)
Organizer: Robert L. Higdon, Oregon State University

MS20 Object-Oriented Programming for Geophysical Estimation
Organizer: William W. Symes, Rice University

MS21 Seismic Imaging and Inversion (Part II of II)
Organizers: Eileen McCarron, Amoco Technology Center; and R. Phillip Bording, University of Texas, Austin

Tuesday Afternoon, June 17

12:30 PM-2:00 PM Lunch

2:00 PM-2:45 PM

IP6 On the Significance of Effective Properties in Flow and Transport in Heterogeneous Porous Formations
Gedeon Dagan, Tel Aviv University, Israel
Chair: Thomas F. Russell, University of Colorado, Denver

2:45 PM-3:15 PM Coffee

3:15 PM-5:15 PM Concurrent Sessions

MS22 Numerical Modeling of Ocean Circulation (Part II of II)
Organizer: Robert L. Higdon, Oregon State University

MS23 Biofilms in Porous Media
Organizer: Kenneth L. Bowers, Montana State University

MS24 Estimating Nonlinear Properties in Models of Flow Through Porous Media
Organizers: Jerome Jaffre, INRIA, France; and A. Ted Watson, Texas A&M University

MS25 Modeling of Multiscale Phenomena in Porous Media (Part III of IV)
Organizers: Lynn S. Bennethum and Thomas F. Russell, University of Colorado, Denver

MS26 Estimating Velocities from Surface Seismic Data
Organizer: William W. Symes, Rice University

MS27 Effective Numerical Methods for Multiscale Heterogeneous Problems in Geophysics
Organizers; Thomas Y. Hou and Xiao-Hui Wu, California Institute of Technology

MS28 Artificial Intelligence in Geosciences
Organizers: Ahmed Ouenes and Adwait Chawathe, New Mexico Petroleum Recovery Research Center

Tuesday Evening, June 17

6:30 PM-9:00 PM

Banquet

Wednesday Morning, June 18

7:30 AM-4:00 PM Registration

8:30 AM-9:15 AM

IP7 Modeling Coastal Ocean Hydrodynamics Using Finite Elements
Rick Luettich, University of North Carolina, Chapel Hill
Chair: William G. Gray, University of Notre Dame

9:15 AM-9:45 AM Coffee

9:45 AM-11:45 AM Concurrent Sessions

CP1 Rock Properties/Characterization
Chair: Allan Gutjahr, New Mexico Institute of Mining and Technology

CP2 Ocean Circulation
Chair: Johannes J. Westerink, University of Notre Dame

CP3 Flow in Porous Media I
Chair: Jeffery P. Holland, Waterways Experiment Station, U.S. Army Corps of Engineers

CP4 Seismic Inversion/Imaging I
Chair: R. Phillip Bording, University of Texas, Austin

CP5 Reservoir Simulation I
Chair: William Fitzgibbon, Rice University

CP6 Upscaling/Homogenization
Chair: Richard E. Ewing, Texas A&M University, College Station

CP7 Climate Modeling
Chair: Monica Martinez, University of Texas, Austin

Wednesday Afternoon, June 18

11:45 AM-1:00 PM Lunch

1:00 PM-1:45 PM

IP8 The Role of Convex and Nonconvex Duality in the Inversion of the Reflection in Seismic Data for Velocities
Guy Chavent, INRIA, France
Chair: Mrinal K. Sen, University of Texas, Austin

1:45 PM-3:45 PM Concurrent Sessions

MS29 Environmental Surface Flow Modeling (Part I of II)
Organizers: Srinivas Chippada, Monica L. Martinez, and Mary F. Wheeler, University of Texas, Austin

MS30 Seismic Imaging in Complex Structure
Organizer: William W. Symes, Rice University

MS31 Reaction-Diffusion Systems in Geoscience Applications (Part I of II)
Organizer: William E. Fitzgibbon, University of Houston

MS32 Modeling of Multiscale Phenomena in Porous Media (Part IV of IV)
Organizers: Lynn S. Bennethum and Thomas F. Russell, University of Colorado, Denver

MS33 Software Tools for Porous Media Flow
Organizers: Hans Petter Langtangen and Aslak Tveito, University of Oslo, Norway

MS34 Multigrid Methods for Flow and Transport Processes in Porous Media
Organizers: Rainer Helmig and Volker H. Schulz, University of Stuttgart, Germany

3:45 PM-4:15 PM Coffee

4:15 PM-6:15 PM Concurrent Sessions

MS35 Effect of Microprocesses and Microstructure on Soil Properties and Fluid Flow in Porous Media (Part I of II)
Organizers: Carlo D. Montemagno, Cornell University; Andrew F. B. Tompson, Lawrence Livermore National Laboratory; William G. Gray, University of Notre Dame; and Wendy E. Soll, Los Alamos National Laboratory

MS36 Reaction-Diffusion Systems in Geoscience Applications (Part II of II)
Organizer: William E. Fitzgibbon, University of Houston

MS37 Environmental Surface Flow Modeling (Part II of II)
Organizers: Srinivas Chippada, Monica L. Martinez, and Mary F. Wheeler, University of Texas, Austin

CP8 Contaminant Transport/ Remediation
Chair: Hans J. van Duijn, Centre for Mathematics and Computer Science (CWI), The Netherlands

CP9 Seismic Inversion/Imaging II
Chair: Mrinal Sen, University of Texas, Austin

CP10 Reservoir Simulation II
Chair: Louis J. Durlofsky, Chevron Oil Field Research Co.

CP11 Flow in Porous Media II
Chair: Graham F. Carey, University of Texas, Austin

6:15 PM-7:00 PM Business Meeting and Reception

Thursday Morning, June 19

7:30 AM-10:00 AM Registration

8:30 AM-9:15 AM

IP9 Statistical-Dynamical Methods in Atmospheric Prediction
Joseph J. Tribbia, National Center for Atmospheric Research
Chair: Andrew F. B. Tompson, Lawrence Livermore National Laboratory

9:15 AM-9:45 AM Coffee

9:45 AM-11:45 AM Concurrent Sessions

MS38 Effect of Microprocesses and Microstructure on Soil Properties and Fluid Flow in Porous Media (Part II of II)
Organizers: Carlo D. Montemagno, Cornell University; Andrew F. B. Tompson, Lawrence Livermore National Laboratory; William G. Gray, University of Notre Dame; and Wendy E. Soll, Los Alamos National Laboratory

MS39 Optimization Methods in Geophysics
Organizers: Mrinal K. Sen and Jake Aggarwal, University of Texas, Austin

CP12 Stochastic Methods in Porous Media
Chair: Brent Lindquist, State University of New York, Stony Brook

CP13 Reservoir Simulation III
Chair: Stephen Lyons, Mobil Research and Development Corporation

CP14 Seismic Inversion/Imaging III
Chair: William W. Symes, Rice University

CP15 Parameter Estimation/History Matching
Chair: Debra L. Hughson, New Mexico Institute of Mining and Technology

CP16 Flow and Transport Processes
Chair: Hong Wang, University of South Carolina, Columbia

11:45 AM Conference adjourns