

Multiphase Fluid Flow in Deformable Porous Media

Chair: Prof. Marte Gutierrez
Colorado School of Mines, USA

Session I (10:00 – 12:30; June 8, 2009; Room 569)

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3D Transient Fundamental Solution of Multiphase Porous Media Under Heating
- 22 Shunde Yin, Maurice B. Dusseault & Leo Rothenburg (USA)
Assessment of the Noordbergum Effect with the Complete Overburden Reaction Considered
- 23 Marte Gutierrez & Imsoo Lee (USA)
Staggered Solution of the Discretized Fully-Coupled Biot's Equations
- 27 Emilio N.M. Cirillo, Nicoletta Ianiro & Giulio Sciarra (Italy)
Solid-Fluid Segregation in Saturated Porous Media
- 32 Meysam Najari & Behrouz Gatmiri (Iran)
The Influence of Vegetation Water Uptake on Moisture and Matric Suction Changes in Multiphase Porous Media
- 53 Maxim Lebedev, Boris Gurevich, Juliana Toms, Ben Clennell, Marina Pervukhina & Tobias M. Muller bias Mueller Florian Karpfinger (Australia)
Laboratory Observation of Velocity-Saturation Relation Transition during Water Imbibition of Porous Rock

Session II (13:00 – 15:15; June 9, 2009; Room 555)

- **Keynote** Prof. Ronaldo I. Borja (USA)
A Framework for Coupled Solid-Deformation/Fluid-Diffusion Analysis of Variably Saturated Slopes: Mathematical Developments and Numerical Simulations of Coos Bay Experimental Catchment
- 83 Koji Yamamoto & Masanori Kurihara (Japan)
Gas Hydrate Production from Geological Formations as Transport Phenomena
- 84 E. Omdal, M.V. Madland, R. Renli, T.G. Kristiansen, A. Hiort, R.I. Korsnes & T. Hildebrand-Hadel (Norway)
Laboratory Observation with Implications for Depletion of Chalk Reservoirs
- 85 Evgeniy Tantserev, Christophe Y. Galerne & Yuri Y. Podladchikov (Norway)
Multi-Phase Flow in Multi-Component Porous Visco-Elastic Media
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Undrained Heating of Geomaterials: Pore Pressure Increase and Chemical Couplings
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The Influence of Isolated Fissures on the Hydraulic Conductivity of Clays

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Time Dependent Behavior of Fluids Filled Geomaterials: Application to Reservoir Formations
- 210 Euripedes Papamichos & Ioannis Vardoulakis (Greece)
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Dissolved Pollutant Transport through Multiphase Porous Medium
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Laboratory Test of Hydraulic Fracturing in Unconsolidated Deformable Rocks
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Water Retention Curve Effect on the Deformable Porous Media Response to Migration of NAPL under Non-isothermal Immiscible Multi-Phase Flow Situation