

Session Program

May 19 - 22, 2025



 **InterPore2025**

Sandia National Laboratories
Los Alamos NATIONAL LABORATORY
NEW MEXICO TECH
SCIENCE • ENGINEERING • RESEARCH • UNIVERSITY
THE UNIVERSITY OF NEW MEXICO

**17th Annual Meeting
& Conference Courses**

19 - 22 May 2025
Albuquerque, New Mexico, *USA*
Conference Courses 18 & 23 May

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InterPore2025

MS03

Tue, May 20

9:05 AM

MS03: 2.1

Session

9:05 – 9:20 AM

Transmissibility Upscaling in Karst Carbonate Rocks Using Surrogate Models

Speaker

Patricia Pereira

9:20 – 9:35 AM

Statistical integro-differential fracture model (Sid-FM): An efficient approach to simulate expected flow in fractured sub-surface formations

Speaker

Daniel Stalder

9:35 – 9:50 AM

Bridging the gap between field observations and modeling of fracture networks

Speaker

Dr Matthew Sweeney

9:50 – 10:05 AM

Developing a Foundation Model for Predicting Material Failure

Speaker

Hari Viswanathan

10:05 AM

2:05 PM

MS03: 2.3

Session

2:05 – 2:20 PM

Damage induced by salt crystallization in heterogeneous porous media in the context of the erosion of the French Basque Coast and the damage of protective buildings

Speaker

Prof. David Grégoire

2:20 – 2:35 PM

Effects of fluid inertia and variable-density flows on mineral dissolution: 3D Pore-scale simulations and millifluidics experiments

Speaker

Hongfan Cao

2:35 – 2:50 PM

Effect of Pressure and CO₂ Solubility on Etch Pit Formation in Fractured Peridotite

Speaker

Hoang Nguyen

2:50 – 3:05 PM

Evolution of Hydraulic and Mechanical Apertures in Heterogeneous Fractures Driven by Mineral Precipitation

3:05 PM

Speaker
Ruoyu Chen

Wed, May 21

11:35 AM

MS03: 3.2

Session

11:35 - 11:50 AM

Coupled THM Processes in PFLOTRAN for Modeling Enhanced Geothermal Systems

Speaker

Jumanah Al Kubaisy

11:50 AM - 12:05 PM

Impact of Stress and Fracture Orientation on Fluid Mixing at Fracture Intersections

Speaker

Jingxuan Deng

12:05 - 12:20 PM

Numerical simulation of Krauklis wave propagation in complex 2D fracture systems

Speaker

Seiji Nakagawa

12:20 - 12:35 PM

Analysis and Comparison of Natural and Induced Single Fractures for Caprock Leakage Assessment

Speaker

Sahyuo Achuo Dze

12:35 - 12:50 PM

Fracture displacement basis function method for fast geomechanical simulations of fractured rocks

Speaker

Giulia Conti

12:50 - 1:05 PM

Experimental validation of a graph-based model to represent colloid transport and fracture-matrix transport processes

Speaker

Collin Sutton

1:05 PM

2:05 PM

MS03: 3.3

Session

2:05 - 2:20 PM

Study of thermal protection system defects using a one-domain porous media model

Speaker

Mr Brandon Van Gogh

2:20 - 2:35 PM

Particle transport in propagating hydro-fracture

Speaker
Dr YUJING DU

2:35 - 2:50 PM

Fracture initiation of polymer flooding using CFD-DEM model in porous media

Speaker
Dr Yerlan Amanbek

2:50 - 3:05 PM

Learning the factors controlling mineral dissolution in three-dimensional fracture networks

Speaker
Dr Aleksandra Pachalieva

3:05 PM