

## **Session Program**

**31 May 2021 to 4 June 2021**

A banner for the InterPore2021 Online conference. It features a hexagonal logo with a blue and white molecular structure on the left. The background is a light blue gradient with a darker blue triangular shape on the left. The text "InterPore2021" is in large black font, with "Online" in a smaller italicized font below it. To the right, it says "13<sup>th</sup> Annual Meeting" and "31 May - 4 June 2021". At the bottom left, it says "Don't miss a moment!" and at the bottom right, it says "Plan to view presentations before the conference".

 **InterPore2021**  
*Online*

**13<sup>th</sup> Annual Meeting**  
**31 May - 4 June 2021**

*Don't miss a moment!* [Plan to view presentations before the conference](#)

# **InterPore2021**

## **MS9**

# Monday 31 May

18:00

## MS9: MS09 (1)

### Session

18:00–18:15

#### Growth and upscaling of viscous fingers in immiscible two-phase flow

##### Speaker

Santanu Sinha

18:15–18:30

#### Improved micro-continuum formulations for pore-scale simulation of mineral dissolution

##### Speaker

Julien Maes

18:30–18:45

#### Dynamic pore-network modeling of coupled compositional flow and phase change dynamics in porous media

##### Speaker

Bo Guo

18:45–19:00

#### Extending equilibrium thermodynamics to include fluid-surface interaction for nanonconfined fluids

##### Speakers

Dr Narendra Singh, Mr Filip Simeski

19:00–19:15

#### Sub-resolution feature size classification based on tunable X-ray dark-field imaging

##### Speaker

Mr Benjamin Blykers

19:15–19:30

#### the impacts of pore-scale two-phase flow on mineral reaction rate

##### Speaker

Dr Hang Deng

19:30

## Tuesday 1 June

14:40

### MS9: MS09 (2)

#### Session

14:40–14:55

#### Digital Rock Analysis of Low Resistivity Pay Zones to Refine Saturation

##### Speaker

Dr Ivan Deshenenkov

14:55–15:10

#### Random Emulation of Large-Scale Natural Pore Networks

##### Speaker

Daniel Meyer

15:10–15:25

#### A new probabilistic nucleation model to predict crystal growth in porous medium

##### Speaker

Mohammad Masoudi

15:25–15:40

#### Pore-by-pore modeling, calibration, and prediction of two-phase flow in mixed-wet rocks

##### Speaker

Sajjad Foroughi

15:40–15:55

#### Lattice Boltzmann modeling of contact angle hysteresis in liquid drying in porous media

##### Speaker

Feifei Qin

15:55–16:10

#### Validation and calibration of interface conditions for Stokes-Darcy problems

##### Speaker

Iryna Rybak

16:10–16:25

#### Modeling the force balance controlling spatial distribution of deposited polymeric substances in porous media

##### Speaker

Dr Peter Lehmann

16:25–16:40

#### Experimental and Numerical Study of the Dynamic Wetting influence on the Multiphase Flow in a Pore Doublet Model

##### Speaker

Dr Amine Ben Abdelwahed

16:40

## Wednesday 2 June

18:50

### MS9: MS09 (3)

#### Session

18:50–19:05

#### **Rheology of two-phase flow in mixed-wet porous media: Dynamic network model and capillary fiber bundle results**

##### **Speaker**

Mrs Hursanay Fyhn

19:05–19:20

#### **Reactive Imbibition of Acidic Fluids in Unconventional Shales: A New Experimental Approach to Pore-Scale Reactive Transport Modeling**

##### **Speaker**

Dr Vincent Noel

19:20–19:35

#### **A fully parallel Pore Network Simulator for plug size pore scale simulations**

##### **Speaker**

Mohamed Regaieg

19:35–19:50

#### **Oil Displacement by Water Through an Ultra-Narrow Kerogen Pore Throat: a Molecular Dynamic Study**

##### **Speaker**

Ms Yinuo Zhao

19:50–20:05

#### **On pore scale simulation of reactive flows in the case of complex catalytic reactions**

##### **Speaker**

Pavel Toktaliev

20:05–20:20

#### **Multi-scale imaging and modelling for reactive diffusion at the pore scale**

##### **Speaker**

Abdellatif SAADALDIN

20:20–20:35

#### **Influence of intermittency effects on anomalous transport in single- and multi-phase flow in porous media**

##### **Speaker**

Zoë Penko

20:50

# Thursday 3 June

10:00

## MS9: MS09 (4)

### Session

10:00–10:15

#### A level set approach to Ostwald ripening of real gases in porous media

##### Speaker

Deepak Singh

10:15–10:30

#### Flow behavior in a rough channel with pore scale simulation

##### Speaker

Chao Xu

10:30–10:45

#### A parallelized method to model combined conductive-radiative heat transfer at local scale within highly porous media

##### Speaker

Dr Benoit Rousseau

10:45–11:00

#### Plug size pore network extraction with pore scale resolution

##### Speaker

Clément Varloteaux

11:00–11:15

#### Digital rock approach for unconsolidated sandpacks using pore network modelling: comparison between experiments and simulations

##### Speaker

Erika Shiota

11:15–11:30

#### Towards Unified Pore-Scale Imaging and Modelling: Comparison of the Generalized Network Model with Direct Numerical Simulation

##### Speaker

Luke Giudici

11:30–11:45

#### A Dynamic Hybrid Multiscale Model for Simulating Flow and Mixing-Controlled Reactions in Porous Media

##### Speaker

Mr Haoran Sun

11:45–12:00

#### Pore-scale observation and insight on how wettability impacts oil recovery and its dependence on rock structure

##### Speaker

Fanli Liu

12:00

14:40

**MS9: MS09 (5)****Session**

14:40-14:55

**Pore-scale study to understand the influence of porosity on mass transport in Anodic Porous Transport Layer of PEM electrolyser using Lattice Boltzmann Method**

**Speaker**

Ms Shubhani Paliwal

14:55-15:10

**Determination of Characteristic Transport Coefficients of Porous Media: A Diffuse Interface approach**

**Speaker**

Mr Chahat Aggarwal

15:10-15:25

**Scaling and errors estimates of the effective Brinkman viscosity**

**Speaker**

Shervin Bagheri

15:25-15:40

**Pore-scale simulations of water droplet interaction with a hydrophobic wire screen for purpose of Water-Diesel separation**

**Speaker**

Omar Elsayed

15:40