

## Scientific Sessions

### [H045](#) [Experimental and Theoretical Strategies for Quantifying the Impact of Small-Scale Heterogeneity on Effective Fluxes Within the Unsaturated Zone and Across Interfaces with the Atmosphere and Saturated Zone](#) | eLightning

**Veronica L Morales**, University of California Davis, Civil and Environmental Engineering, Davis, CA, United States, **Kathleen Smits**, University of Texas at Arlington, Department of Civil Engineering, Arlington, TX, United States and **Joaquin Jimenez-Martinez**, EAWAG Swiss Federal Institute of Aquatic Science and Technology, Department of Water Resources and Drinking Water, Dübendorf, Switzerland

Tuesday, 8 December 2020  
19:30 - 20:30

- Virtual

### [H023](#) [Biochemical and Hydrodynamic Processes in Biofilms and Porous Media](#) | eLightning

**Francisco Jose Carrillo**<sup>1</sup>, **Dorothee Luise Kurz**<sup>2</sup>, **Joaquin Jimenez-Martinez**<sup>3</sup> and **Eleonora Secchi**<sup>3</sup>, (1)Princeton University, Princeton, NJ, United States (2)ETH Zurich, Environmental Engineering, Zurich, Switzerland (3)ETH Swiss Federal Institute of Technology Zurich, Zurich, Switzerland

Tuesday, 8 December 2020  
02:30 - 03:30

- Virtual

## Abstracts

### [H045-04](#) [Soil respiration insensitivity under combined extremes: Insights from laboratory experiments](#)

**Joaquin Jimenez-Martinez**<sup>1,2</sup>, **Erfan Haghghi**<sup>3</sup> and **Alexander Damm**<sup>1,4</sup>, (1)EAWAG Swiss Federal Institute of Aquatic Science and Technology, Dübendorf, Switzerland, (2)ETH Swiss Federal Institute of Technology Zurich, Zurich, Switzerland, (3)EAWAG Swiss Federal Institute of Aquatic Science and Technology, Dübendorf, Switzerland, (4)Remote Sensing Laboratories, University of Zurich, Geography, Zurich, Switzerland

Tuesday, 8 December 2020  
19:39 - 19:42

- Virtual

### [H024-01](#) [Experimental Microfluidics and Computational Studies of Precipitation and Dissolution](#)

**James W Carey**<sup>1</sup>, **Joaquin Jimenez-Martinez**<sup>2</sup>, **Phong Nguyen**<sup>3</sup>, **Jeffrey Hyman**<sup>4</sup>, **Yu Chen**<sup>4</sup> and **George Jr. Guthrie**<sup>5</sup>, (1)Los Alamos National Laboratory, Earth & Environmental Sciences, Los Alamos, NM, United States, (2)ETH Swiss Federal Institute of Technology Zurich, Zurich, Switzerland, (3)Los Alamos National Laboratory, Earth & Environmental Science Group, Los Alamos, NM, United States, (4)Los Alamos National Laboratory, Los Alamos, NM, United States, (5)Los Alamos National Laboratory, Earth & Environmental Scienc, Los Alamos, NM, United States

Tuesday, 8 December 2020  
04:00 - 04:04

- Virtual

[OS034-06Crustal fingering facilitates free-gas methane migration through the hydrate stability zone](#)

**Xiaoqing Fu**, University of California Berkeley, Earth and Planetary Science, Berkeley, CA, United States, **Joaquin Jimenez-Martinez**, EAWAG Swiss Federal Institute of Aquatic Science and Technology, Department of Water Resources and Drinking Water, Dübendorf, Switzerland, **Thanh Phong Nguyen**, Los Alamos National Laboratory, Los Alamos, United States, **James W Carey**, Los Alamos National Laboratory, Earth & Environmental Sciences, Los Alamos, NM, United States, **Hari Selvi Viswanathan**, Los Alamos National Laboratory, Los Alamos, NM, United States, **Luis Cueto-Felgueroso**, Universidad Politécnica de Madrid, Madrid, Spain and **Ruben Juanes**, Massachusetts Institute of Technology, Cambridge, MA, United States

Saturday, 12 December 2020  
02:52 - 02:56

- [Virtual](#)