

### **Minisymposium**

**Title: 1st MAMERN-FIC Porous Media Day**

**Organizers: [Brahim Amaziane](#) (UPPA & CNRS, Pau, France) and [Michel Quintard](#), President of the FIC (IMFT, CNRS, Toulouse, France)**

The French Interpore Chapter (FIC) is the French section of the International Society for Porous Media INTERPORE. Established as an independent and non-profit association, the FIC aims at bringing together the French community of researchers and engineers working in the domain of porous media.

The aim of this minisymposium is to reinforce the scientific interchange between researches from France and the Mediterranean basin.

This minisymposium will address in this context recent advances in modelling, numerical simulation, and mathematical analysis of flow and transport in porous media and identify future directions for research in cooperation between the two communities.

---

**[Space-time domain decomposition methods and a posteriori error estimates for the subsurface](#)  
[Elyes Ahmed](#) (1,2), [Sarah Ali Hassan](#) (1) , [Caroline Japhet](#) (2) , [Michel Kern](#) (1) and [Martin Vohralík](#) (1)**

(1) INRIA Paris, France

(2) Université Paris 13 & CNRS, Villetaneuse, France

---

**[A sequential semi-implicit algorithm for computing two-phase multicomponent flow with reactive transport in porous media](#)**

**[Etienne Ahusborde](#) (1), [Brahim Amaziane](#) (1) and [Mustapha El Ossmani](#) (1,2)**

(1) Université de Pau & CNRS, Pau, France

(2) University Moulay Ismaïl, EMMACS-ENSAM, Morocco

---

**[A posteriori error estimates and stopping criteria for Robin domain decomposition methods](#)**

**[Sarah Ali Hassan](#) (1) , [Caroline Japhet](#) (2) , [Michel Kern](#) (1) and [Martin Vohralík](#) (1)**

(1) INRIA Paris, France

(2) Université Paris 13 & CNRS, Villetaneuse, France

---

**[Modelling and analysis of interface problems for the fluid-porous flow](#)**

**[Philippe Angot](#) (1), [Benôit Goyeau](#) (2) and [J. Alberto Ochoa-Tapia](#) (3)**

(1) Aix-Marseille Université & CNRS, Marseille, France

(2) Ecole Centrale-Supélec, Université Paris-Saclay & CNRS, Châtenay-Malabry, France

(3) Universidad Autónoma Metropolitana-Iztapalapa, Mexico, Mexico

---

**[Multiphase multicomponent modelling of the NAPL transfer in the subsurface using Method of Lines](#)**

**[R. di Chiara Roupert](#) (1), [G. Schäfer](#) (1) , [M. Quintard](#) (2) , [M. Marcoux](#) (2) , [J. Chastanet](#) (3), [J-M. Côme](#) (3) and [Y. Duclos](#) (4)**

(1) Université de Strasbourg & CNRS, Strasbourg, France

(2) Institut de Mécanique des Fluides & CNRS, Toulouse, France

(3) IBURGÉAP, Boulogne Billancourt, France

(4) ADEME, Paris, France

**MAMERN VII-2017: 7th International Conference on Approximation Methods and  
numerical Modeling in Environment and Natural Resources**

**May 17-20, 2017, Oujda – Morocco**

<http://mamern.ump.ma/> contact: [brahim.amaziane@univ-pau.fr](mailto:brahim.amaziane@univ-pau.fr)

**Global existence results for the stable Muskat problem**

**Diego Cordoba (1), and Omar Lazar (1)**

(1) Instituto de Ciencias Matematicas and Consejo Superior de Investigación Científica, Madrid, Spain

---

**Modeling of the water and nitrogen transfers in variably saturated agricultural soil Influence of a fractured medium on pyrite oxidation reaction**

**Yvan Crenner (1) and Jocelyne Erhel (1)**

(1) INRIA Rennes, France

---

**Mass and momentum exchanges control two-phase flow of immiscible fluids in highly permeable porous media**

**Yohan Davit (1), Sylvain Pasquier (1) and Michel Quintard (1)**

(1) Institut de Mécanique des Fluides & CNRS, Toulouse, France

---

**Modeling of the water and nitrogen transfers in variably saturated agricultural soil**

**R. Karra (1) and A. Maslouhi (1)**

(1) Université Ibn Tofail, Kenitra, Maroc

---

**Macroscale model for gas slip-flow in homogeneous porous media**

**Didier Lasseux (1), Francisco Valdes Parada (2) and Mark Porter (3)**

(1) CNRS & Université de Bordeaux, Talence, France

(2) Universidad Autónoma Metropolitana-Iztapalapa, Mexico, Mexico

(3) Earth Systems Observations, Los Alamos, USA

---

**A comparison of error indicators for the  $RT_0$  approximation of a reduced model for flow in fractured porous media**

**Zoubida Mghazli (1), Ilyas Naji (1) and Jean Elizabeth Roberts (2)**

(1) Université Ibn Tofail, Kenitra, Maroc

(2) INRIA Paris, France

---