

Dr. NOETINGER BENOIT

Senior expert @ IFPEN

1-4 avenue de Bois Préau 92852 Rueil Malmaison Franc

Tel.: +33617185989

Email: benoit.noetinger@ifpen.fr

Editor in chief of OGST <https://ogst.ifpennergiesnouvelles.fr/>

Education and Professional Career

- 1986 Master at Université Paris VI "Liquid State Physics" awarded in 1986
- 1985 Registered engineer (Graduated) from Ecole Polytechnique
- 1989 PhD thesis l'Université Paris VI: "Sédimentation et transport de particules en un Fluide Visqueux". Advisor: Prof. E. E. Guyon
- Since 1989 Researcher at IFP (now IFPEN)
- 2000 Habilitation à Diriger des Recherches de l'Université Paris VI. "Ecoulements en milieux poreux hétérogènes et fracturés en régimes permanents et transitoires." Committee: J. Cushman, Purdue University; P. Davy, Geosciences Rennes; F. Delay, Univ. Poitiers; P.G. de Gennes, Collège de France; J.P. Hulin, univ Orsay; G. de Marsily, Paris 6, M. Quintard, Institut de Mécanique des Fluides de Toulouse.

Commitment, Appointments and Scientific Volunteer Jobs

- 2018-2020 Part time professor Université Libanaise, Beirut.
- 2000-2020 Part time professor at university of Pau and Pays de l'Adour
- 2010-2020 Part time professor at Centralesupelec
- 2000-2020 editorial board for TiPM
- 1990-2020 membership in SPE
- 2012-2020 membership in InterPore
- 2015-2016 Founding Member of the French Interpore Chapter
- Other: Member of scientific committees at several conferences, reviewer for TiPM, J Comp Phys, JPST, OGST etc.

Professional Awards, Offers and Recognitions

- 2020 Invited researcher in USTC Hefei, China, postponed by COVID 19 pandemics.
- 2019: Award Constantin de Magny from French Académie des sciences.
- 2005&2010 Invited speaker at Cargèse summer school: Flow and Transport in Porous and Fractured media: Development, Protection, Management and Sequestration of Subsurface Fluid
- 2009&2012 Invited speaker at Workshops in Laramie UW.

Most important Publications (maximum 10)

(Peer reviewed journal articles / books / patents)

- [1] Fournon, A., Ngo, T. D., Noetinger, B., & La Borderie, C. (2019). FraC: A new conforming mesh method for discrete fracture networks. *Journal of Computational Physics*, 376, 713-732.
- [2] Ngo, T. D., Fournon, A., & Noetinger, B. (2017). Modeling of transport processes through large-scale discrete fracture networks using conforming meshes and open-source software. *Journal of Hydrology*, 554, 66-79.
- [3] Simonnin, P., Noetinger, B., Nieto-Draghi, C., Marry, V., & Rotenberg, B. (2017). Diffusion under confinement: Hydrodynamic finite-size effects in simulation. *Journal of Chemical Theory and Computation*, 13(6), 2881-2889.
- [4] Noetinger, B., Roubinet, D., Russian, A., Le Borgne, T., Delay, F., Dentz, M., ... & Gouze, P. (2016). Random Walk Methods for Modeling Hydrodynamic Transport in Porous and Fractured Media from Pore to Reservoir Scale. *Transport in Porous Media*, 1-41.
- [5] B. Noetinger, N. Jarrige A quasi steady state method for solving transient Darcy flow in complex 3D fractured networks, *Journal of Computational Physics* 231(1), 10.1016/j.jcp.2011.08.015.

- [6] Botan, A., Rotenberg, B., Marry, V., Turq, P., & Noetinger, B. (2011). Hydrodynamics in clay nanopores. *The Journal of Physical Chemistry C*, 115(32), 16109-16115.
- [7] Noetinger, B., Artus, V. and Ricard, L. (2004). Dynamics of the Water Oil Front for Two-Phase, Immiscible Flow in Heterogeneous Porous Media. 2 Isotropic Media. *Transport in Porous Media*, 56, 305-328.
- [8] Le Ravalec, M., Noetinger, B. and Hu, L.Y (2000). The FFT moving average (FFT-MA) method: an efficient tool for generating and conditioning Gaussian simulations. *Math. Geol.* 32(6).
- [9] LANDEREAU P, NOETINGER B., QUINTARD, M, Quasi steady two Equation Models for Transport in Fractured Porous Media: Large scale properties for densely Fractured Systems *Advance in Water Resources* 24 (8) (2001) pp. 863-876.
- [10] NOETINGER B. The effective permeability of a heterogeneous porous medium, *Transport in Porous Media* 15: 99-127, 1994.