

# Geotechnical Engineering Lecture Series

**Speaker: Dr. Olivier Coussy**

Institut Navier, ENPC-LCPC, France

## Dates and Lectures:

Tuesday May 16: From mechanics to poromechanics – Swelling of clays

Thursday May 18: Unsaturated poroelasticity – Drying and crystallization

**Time:** 3:30pm

**Location:** Mason 142A

*Olivier Coussy did all his career at Laboratoire Central des Ponts et Chaussées. He currently runs the Navier Institute close to Paris, which is mainly involved in the Mechanics and Physics of materials and structures of Civil Engineering. Through the years he has worked in several fields of Applied Mechanics, as Limit Yield Design, Dynamics of Cracked Materials and Structures, and the Mechanics of Porous Media. He has been the supervisor of twelve theses and the reader or the member of PhD committees of more than thirty theses. He authored or co-authored more than sixty papers in scientific journals and five books, among which the last one "Poromechanics" published in 2004 presents a comprehensive approach to the Mechanics and Physics of porous materials. He is the member of the scientific committee of four journals. Parallel to his research activities, Olivier Coussy has been Associate Professor at the Ecole polytechnique in Fluid Mechanics, at the Ecole Nationale des Ponts et Chaussées and at the University of Marne-la-Vallée in Solid Mechanics and Thermodynamics. To learn more about Dr. Coussy, visit: <http://perso.lcpc.fr/coussy.olivier/index.htm>*

## Recommended reading:

- O. Coussy, Poromechanics of freezing materials, Journal of The Mechanics and Physics of Solids, Vol 53/8 pp. 1689-1718 (2005).
- O. Coussy, Poromechanics, John Wiley & Sons (2004)
- O. Coussy, P. Dangla, T. Lassabatère, V. Baroghel-Bouny, The Equivalent Pore Pressure and the Swelling and Shrinkage of Cement-Based Materials, Materials and Structures/Concrete and Science Engineering, Vol. 37, n° 265, pp 15-20 (2004).
- O. Coussy, R. Eymard, T. Lassabatère, Constitutive modelling of unsaturated drying deformable materials, Journal of Engineering Mechanics, Vol.124, No. 6, 658-667 (1998).

**Free admission. Space limited.**