

Guilhem MOLLON
Section 11 – Collège B2

Associate Professor
PhD in Civil Engineering
HDR in Mechanical Engineering
INSA Engineer, ENS Graduate, “Agrégé”
42 years old



TRIBOLOGY – GEOMECHANICS – GEOPHYSICS

Education:

- 2022: “Habilitation à Diriger des Recherches” (HDR), INSA Lyon
- 2007-2010: PhD at INSA Lyon, University of Lyon (France)
- 2006-2007: Research Master Degree in Civil Engineering « MEGA de Lyon », Civil Engineering and Geotechnical Sciences, INSA Lyon, University of Lyon
- 2006: Laureate of the Civil Engineering Teaching Degree, “Agrégation” (National teaching recruitment, ranked first): Accredited teacher
- 2005-2006: Preparation of Civil Engineering Teaching Degree (“Agrégation”) in Ecole Normale Supérieure de Cachan
- 2005: Master Degree of Engineering of INSA Lyon, University of Lyon, Civil Engineering and Urban Planning Department (GCU)

Research experience:

ENS PARIS, September 2019-August 2020: Invited Researcher at the Laboratoire de Géologie, Fault Mechanics team

INSA LYON, Since September 2013: Associate Professor in the Laboratory of Contacts and Structures Mechanics (LaMCoS), Tribology and Mechanics of Interfaces (TMI) team

UNIVERSITY OF GRENOBLE, September 2012-August 2013: Lecturer at the Polytech Grenoble Engineering School, in the Geotechnical Engineering Department. Researcher at the Soils, Solids, Structures and Risks Laboratory (3SR Lab).

HONG KONG UNIVERSITY OF SCIENCE AND TECHNOLOGY, October 2011-September 2012: Research Associate in Prof. Jidong Zhao's research team, on the topic "Micromechanical analysis of sands"

UNIVERSITY OF GRENOBLE, 3SR LAB, October 2010 to October 2011: Postdoc researcher on the topic “Modelling of rock avalanches by discrete elements methodology” as part of the European research project MASSA, under the supervision of Prof. P. Villard.

NATIONAL UNIVERSITY OF SINGAPORE, March to September 2009: Research stay on the topic “Analysis of the stability of a pressurized tunnel face in a spatially varying soil”, under the supervision of Prof. K.-K. Phoon.

UNIVERSITY OF LYON, INSA LYON, LGCIE, September 2007 to August 2010: PhD thesis on the topic “Deterministic and probabilistic study of the behaviour of tunnels”, under the supervision of Dr. D. Dias and Prof. A.-H. Soubra.

UNIVERSITY OF LYON, INSA LYON, LGCIE, January-July 2006: Laboratory internship on the topic “Numerical analysis and prediction of the ground settlements induced by the excavation of a shallow tunnel: study of a real case in an urban context”, linked with the future road tunnel of Toulon (France).

Teaching experience:

EPFL, summer school, Visp, Switzerland August 2021, 2023, 2025

Lectures in the Summer School "Tribology and Surface Interactions" organized by EPFL: "Rock tribology – Understanding earthquakes" and "Geological sliding in the field"

INSA LYON, Lyon, Since September 2013

Associate Professor in the department of Engineering Mechanics and Design (GMD) and then Mechanical Engineering (GM), in charge of courses, tutorials and lab classes of Data Processing, Solid Dynamics, Numerical Mathematics, Numerical Analysis by Finite Elements, Solid Mechanics, and Granular Materials. In charge of the fifth year engineering internships.

ECOLE NATIONALE D'INGENIEURS DE SAINT ETIENNE, Saint Etienne, 2014-2016

Course of Numerical Tribology in the framework of the Research Master "Mechanics and Materials"

UNIVERSITY OF GRENOBLE, France, September 2012-August 2013

Lecturer at Polytech Grenoble Engineering School. Responsible for the Continuum Mechanics class (courses, tutorials), teachings in Fluid Mechanics (courses) and Soil Mechanics (Lab classes)

UNIVERSITY OF LYON, France, September 2007-June 2010

Teacher at the Lyon Technological Institute of civil Engineering. Courses of stability, structural mechanics, timber construction, fluid mechanics, and concrete materials: Tutorials, lab classes, projects.

"*AGREGE*" IN CIVIL ENGINEERING, session 2006

National teaching ranking and recruitment, Option Structures and Buildings, ranked first

Scientific production:

11 co-supervised PhD thesis

15 co-supervised Master thesis

4 co-supervised Postdoc

49 articles in international journals

1 patent

105 communications in international conferences

18 communications in national conferences

40 invited seminars and workshops

Selected responsibilities:

- PI of many research projects (ANR, LabEx, EUR, locally-funded). In charge of many collaborative industrial projects.

- Associate Editor of Granular Matter (Springer), Member of the editorial board of Computers and Geotechnics (Elsevier), Guest editor for Tribology International (Elsevier), 10-15 article reviews per year.

- Member of many Ph committees and juries, in France and abroad. Member of several Selection committees for Assistant Professors.

- Member of the organizing committee of several international conferences (Leeds-Lyon Symposium for Tribology, World Tribology Congress, Contact Mechanics International Symposium, etc.). Co-organizer of the Thematic Doctoral School TRAMME.

- Elected member of the Laboratory Council and of the Scientific Council of the LaMCoS. In charge of the lab seminars. Member of the scientific committee of the EUR Manutech SLEIGHT.

- In charge of several courses in the Mechanical Engineering Department of INSA Lyon: Granular Media, Data Processing (~300 students each year). In charge of the internships of the department (2014-2019).