

Guilhem MOLLON



Associate Professor
PhD of Civil Engineering

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Education:

- 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 Diploma (National teaching recruitment, ranked first): Accredited teacher
2005-2006: Preparation of Civil Engineering Teaching Diploma in Ecole Normale Supérieure of Cachan
2005: Master Degree of Engineering of INSA Lyon, University of Lyon, Civil Engineering and Urban Planning Department (GCU)

Professional experience:

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

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).

Scientific production:

- PhD Thesis
20 articles in international journals
10 invited seminars / conferences without proceedings
12 extended abstracts in conferences
14 articles in international conferences
5 articles in national conferences

ISI Researcher ID: F-2581-2012

Activities for the scientific community:

- **LaBex MANUTECH SISE**: Member of the scientific committee of theme 3, "Perception engineering and white light processing", since 2014.
- **GIS InTriG** : Member of the scientific interest group "International Tribology Group"
- **Computers and Geotechnics** (Elsevier): Member of the editorial board, since 2015.
- **LMGC90 software**: Co-organisor of the Users Colloquium, held in Villeurbanne in March 2015
- **Leeds-Lyon Symposium for Tribology 2015**: Co-organisor of the poster session, held in Ecully in September 2015

Implication in research projects:

- European project **MASSA** ("Medium And Small Size rockfall hazard Assessment"), 2010-2011.
- French national project **CARAB** ("Advanced and Robust Conception for Bolted Joints", since 2014

Teaching:

ECOLE NATIONALE D'INGENIEURS DE SAINT ETIENNE, Saint Etienne, Since Décembre 2014
Course of Numerical Tribology in the framework of the Research Master "Mechanics and Materials"

INSA LYON, Lyon, Since September 2013

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

UNIVERSITE 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)

UNIVERSITE 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

Development of Softwares:

EFG2D - Multibody mechfree code

DEMLAB - Discrete Element Modelling with Matlab

PACKING3D - Generation and packing of a 3D granular sample

PACKING2D - Generation and packing of a 2D granular sample

TFSS - Deterministic and probabilistic design of a pressurized tunnel face

ROCKTUN - Design of a pressurized tunnel face in rock

Reviewing:

Canadian Geotechnical Journal (Canadian Science Publishing)
Tribology International (Elsevier)
Granular Matter (Springer)
Geotechnique Letters (ICE)
Engineering Geology (Elsevier)
Advances in Building Technologies and Construction Materials (Hindawi)
Georisk (Taylor and Francis)
Environmental Earth Sciences (Springer)
Computers and Geotechnics (Elsevier)
Journal of Computing in Civil Engineering (ASCE)
Powder Technology (Elsevier)
Journal of Geophysical Research - Solid Earth (AGU)
Civil Engineering and Environmental Systems (Taylor and Francis)
Probabilistic Engineering Mechanics (Elsevier)
Soils And Foundations (Elsevier)
Proceedings A (Royal Society Publishing)
International Journal for Numerical and Analytical Methods in Geomechanics (Wiley)
Journal of Geotechnical and Geoenvironmental Engineering (ASCE)
European Journal of Environmental and Civil Engineering (Taylor and Francis)
Automation in Construction (Elsevier)
Structural Engineering and Mechanics (Techno Press)
GeoCongress 2012 (ASCE)