

# Lyesse Laloui

Swiss citizen, Place of origin: Ecublens VD  
born on 29.07.1963, married, 2 children

**CHAIR FULL PROFESSOR**, Swiss Federal Institute of Technology, EPFL  
**DIRECTOR** of the Laboratory of Soil Mechanics,  
CO<sub>2</sub> Sequestration and Geo-Engineering, EPFL  
**FULL MEMBER**, Swiss Academy of Engineering Sciences  
**HONORARY EDITOR IN CHIEF**, *Geomechanics for Energy and the Environment*  
**VICE PRESIDENT EUROPE**, International Society of Soil  
Mechanics and Geotechnical Engineering  
**DIRECTOR EUROPE**, International Associated Research Centers  
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epfl.ch/labs/lms/prof-lyesse-laloui/

## PROFESSIONAL PROFILE

Prof. Laloui has dedicated much of his career **to understanding the natural world for the benefit of society**. His research and exploration of the mechanics of geomaterials and other geology have significantly contributed to our understanding of the physical mechanisms of these materials. From this, he has developed innovative and sustainable technologies for today and future generations. His efforts in areas such as **sustainability, climate change, renewable energy, and the optimization of natural resources** have been recognized and awarded by the European Research Council with an **Advanced ERC** grant in 2018, followed by an **ERC Proof of Concept** grant in 2020 and an **ERC Transition** grant from the European Innovation Council in 2023. In 2022, Prof. Laloui was recognized for his **commitment to global sustainability with two honoris causae** from Heriot-Watt University (U.K.) and the Technical University of Cluj-Napoca (Romania).

Prof. Lyesse Laloui is a member of the Swiss Academy of Engineering Sciences (**SATW**) and the Swiss Society of Engineers and Architects (**SIA**). He serves as the European Vice President of the International Society of Soil Mechanics and Geotechnical Engineering (**ISSMGE**) and the Director for Europe of the International Associated Research Centers for the Urban Underground Space (**ACCUS**).

As founder and Honorary Editor-in-Chief of the Elsevier *Geomechanics for Energy and the Environment* journal, he is a leading scientist in the field of geomechanics and geo-energy. His research portfolio includes 13 written and edited books and over 370 peer-reviewed papers, resulting in almost 20,000 citations with an h-index of 64. Two of his papers are among the top 1% in the field of Engineering. Prof. Laloui has given keynote and invited lectures at more than 40 leading international conferences. He has won many awards in recognition of his work including the "Excellent Contributions Award" of the International Association for Computer Methods and Advances in Geomechanics in 2008, the "2012 Vardoulakis Lecture" from the University of Minnesota (USA), the "12th G.A. Leonards Lecture" from the University of Purdue (USA) in 2014, the "2016 RM Quigley Award" from the Canadian Geotechnical Society, the "30th Roberval Award" in 2018, the "Kersten Lecture" at the American Society of Civil Engineering Geo-congress 2020 in Minneapolis (USA), the "Vienna Terzaghi Lecture" and the "Eshbach Lecture" at Northwestern University (USA) in 2022. Prof. Laloui has several patents that he is developing in the context of five EPFL technological startups. One of them (Enerdrape) is in the Swiss Top 100, 2023.

## MAIN PROFESSIONAL POSITIONS

### **Professor**

Swiss Federal Institute of Technology, EPFL | 2006 – current

### **Director**

Laboratory for Soil Mechanics, Geo-engineering and CO2 Storage | 2008 – current  
Swiss Federal Institute of Technology, EPFL  
Establishing it as a world-class teaching and research unit.

### **Founder and Editor-In-Chief**

*Geomechanics for Energy and the Environment* – Elsevier | 2014 – current  
Impact Factor: **4.6**, CiteScore: **6.8** (2021)

### **Honorary Director**

International Joint Research Center for Energy Geotechnics, Nanjing, China | 2018 – 2020

### **Full Member**

Swiss Academy of Engineering Sciences | 2021 – current

### **Vice President Europe**

International Society of Soil Mechanics and Geotechnical Engineering (ISSMGE) | 2022 – 2026  
27,000 members in the world, 9000 members in Europe.

### **Director**

Civil Engineering Section, Swiss Federal Institute of Technology, EPFL | 2012 – 2022

### **Member of the Board of Directors**

School of Architecture, Civil and Environmental Engineering (ENAC), Swiss Federal Institute of Technology, EPFL | 2013 – 2022

### **Director**

Doctoral Program in Mechanics, Swiss Federal Institute of Technology, EPFL | 2008 – 2012

### **President**

EPFL General Assembly | 1991 – 2001

### **EPFL body representative**

ETH-Rat Board | 1991 – 2001

### **Research Fellow**

Swiss Federal Institute of Technology, EPFL | 1994 – 2006

## EDUCATION

### **Administrator of companies** | 2021

Swiss Board School (Uni. of St. Gallen, Lausanne, Geneva, and Swiss Board Institute)

### **Ph.D.** with honours: "Summa cum laude" | 1993

Ecole Centrale Paris, France

### **Advanced Master** in Soil and Structural Mechanics, | 1989

Ecole Centrale Paris, France

### **Master in Civil Engineering**

Ecole Nationale des Travaux Publics, Algiers | 1987

## ADJUNCT POSITIONS

### **Adjunct Professor**

School of Civil and Environmental Engineering, Duke University, USA | 2007 – 2020

### **Advisory Professor**

Hohai University, Nanjing, China | 2016 – 2019

### **Distinguished Adjunct Professor**

King Abdulaziz University (KAU), Jeddah, Saudi Arabia | 2013 – 2014

## ACADEMIC HONOURS

### **Doctorate Honoris Causa**

In recognition of the contribution to geotechnical engineering solutions for a sustainable world. Technical University of Cluj-Napoca (UTCN), Romania, 2022.

### **2022 Eshbach Lecture**

"Tailor-made soil properties by bio-geochemical means," Northwestern University, USA, October 2022.

### **Doctorate Honoris Causa**

For outstanding achievements in geotechnical engineering and developing innovative technologies supporting a sustainable future, Heriott-Watt University (U.K.), 2022.

### **Vienna Terzaghi Lecture**

"Tailor-made soil properties by bio-geochemical means," Austrian Geotechnical Conference, 2022.

### **Proof of Concept Grant (PoC-ERC)**

European Research Council (ERC) for the project CEBREWA (Construction & Environmental Biocementation in Real World Applications), 2020.

### **2020 Kersten Lecture**

"Energy Geotechnology: A New Era for Geotechnical Engineering Practice," Geo-congress 2020 Minneapolis, Minnesota (USA).

### **Advanced ERC Grant**

European Research Council (grant 2.5 million Euros) for the project BIOGEOS (Biomediated Geomaterial Strengthening), 2018.

### **30<sup>th</sup> Roberval Award**

For the book "Mécanique des sols et Roches" (ISBN 978-2-88074-961-3), co-authored with L. Vulliet and J. Zhao. Award received at the French Academy of Science, 2018. Former Nobel prize winners such as G. Charpak et P-G. de Gennes are among the recipients.

### **2016 RM Quigley Award**

For the best paper published in the Canadian Geotechnical Journal in 2015.

### **12th G.A. Leonards Lecture**

"Advances in the Analysis of Thermo-Active Foundations," University of Purdue, USA, 2014.

### **Honorary Editor and Chairman**

Géotechnique Symposium in Print 2013 – Institute of Civil Engineering, U.K.

### **2012 Vardoulakis Lecture**

For significant contributions to the field of geomechanics, University of Minnesota, USA, 2012.

### **Excellent Contributions Award**

International Association for Computer Methods and Advances in Geomechanics for significant contributions in research, academic activities, and professional service in the interdisciplinary area of Geomechanics, 2008.

## INNOVATION, TECHNOLOGY TRANSFER - PATENTS AND COMMERCIAL SOFTWARE

- **Invention 1: PCT/IB2019/054532 - System and method for ground consolidation.**

The present invention belongs to the fields of construction technology and geotechnical engineering. More precisely, the present invention relates to a method and system for ground stabilization that uses a system of electrodes in the ground.

- **Invention 2: PCT/IB2019/052950 Patent: heat exchanger module and methods of using thereof**

Heat exchanger module and methods of using thereof. The present invention relates to a thermal energy transfer unit and its applications in, e.g., heat exchange processes in a built environment.

- **Invention 3: PCT/IB2020/05473 - Method and system for producing a carbonate-containing species-rich, nitrogen-containing species-free solution.**

The present invention generally belongs to the field of inorganic chemistry. More particularly, the invention pertains to a method and system for producing a carbonate-containing species-rich, nitrogen-containing species-free solution from a urea-rich solution and applications for ground bio-consolidation processes.

- **Invention 4: PCT/EP2017/062995 - Patent: a geosynthetic element for soil bio-improvement**

The present invention relates to a geosynthetic element for geotechnical engineering applications. More specifically, according to the present invention, the geosynthetic element comprises bacteria carriers for

calcifying bacteria and a flow network. The present invention also relates to a method of inducing microbial calcium carbonate precipitation in a geomaterial by using the geosynthetic element.

The related activities were developed in the context of a startup (MeduSoil), awarded the Swiss National ClimateKIC 2017.

- **Software for the design of energy geostructures**

In 2011, Laloui developed the commercial software "Thermo-Pile" for the geotechnical design of energy piles. It is the only software of its kind available on the market for the feasibility analysis of energy pile projects. The software is based on the scientific achievements of his research activities in this area and is currently used in several countries, including France, Spain, Belgium, and Korea.

Further details can be found at <http://lms.epfl.ch/thermopile>.

More about patents: <https://patents.justia.com/search?q=Laloui>

## Other Professional Activities

### AMBASSADOR

#### **Lausanne Montreux Congress (LMC)**

LMC brings together experts from different sectors in the economic region of Lausanne and Montreux.

### GUEST EDITOR (SPECIAL ISSUES)

- Energy Procedia - Volume 114, Pages 1-7666, July 2017.  
Proc. 13th International Conference on Greenhouse Gas Control Technologies, GHGT-13, 14-18 November 2016, Lausanne, Switzerland. Edited by Tim Dixon, Lyesse Laloui, and Sian Twinning
- Acta Geotechnica: Thermoactive Geotechnical Systems, 2014.
- Engineering Geology: Mechanics and velocity of large landslides, vol. 109, 2009.
- European Journal of Environmental and Civil Engineering:  
1. Coupled Multi-Physics Processes in Geomechanics, vol. 9, N°5-6, 2005.  
2. Failure in multiphase geomaterials, vol. 13, N°7-8, 2009.
- International Journal of Road Materials and Pavement Design: Water in Pavements, vol. 8, N°4, 2007.
- Géotechnique: Symposium in Print – Bio- and Chemo-Mechanical processes in geotechnical engineering (Vol. LXIII N° 2, 2013; Vol. LXIII N° 3, 2013)
- Soils and Foundations: Geomechanics of Structured Materials, Vol. 49, N°3, 2009.
- Water Resources Research: Hydrology and Mechanical Coupling in Earth Sciences and Engineering: Interdisciplinary Perspectives, Vol. 44, Issue 5, 2008.

### SCIENTIFIC AND EXPERT COMMITTEES

#### **Chair:**

Chairman of the Advisory Committee during XVIII European Conference on Soil Mechanics and Geotechnical Engineering, Portugal, 2024.

Chair of the Evaluation Panel of Civil and Geological Engineering R&D Units of Portugal (2018).  
*Portuguese Science and Technology Foundation (FCT)*.

#### **Executive Committee representative:**

Government of Switzerland in the International Energy Agency Greenhouse R&D Technology Collaboration Program (2016-2021)

#### **Vice-Chair:**

TC101 "Laboratory Stress Strain Strength - Testing of Geomaterials" of the International Society for Soil Mechanics and Geotechnical Engineering (2013-2017).

#### **Vice-director:**

ALERT-Geomaterials network (Alliance of Laboratories in Europe for Research and Technology - Leading European network in Geomechanics formed by 27 universities) (2005-2011).

#### **Expert:**

European Commission for the Euratom project (CLUSTER EDZ working group), Luxembourg (2003).

#### **Member:**

Executive Committee of the Swiss Competence Center for Energy Research – Supply of Electricity (SCCER-SoE) – Leader of Work Package Geo-Energies (2017- 2021).

Scientific Council of CISM, the International Centre for Mechanical Sciences, Udine (Italy) (2017- 2018).

EU-ERC Consolidator Grants panel dealing with Products and Processes Engineering - The Consolidator Grant provides significant support to the most promising researchers of the next generation who are consolidating their research careers, usually 7 – 12 years beyond the doctorate (2014-2015).

Scientific Committee of the INERIS (French National Institute of Industrial Environment and Risks). Evaluation of research groups and research projects (2002-2008).

Evaluation Committee of the research activities of the French Environment and Energy Management Agency (ADEME) (2008).

International Experts Group in charge of building a Thermo-Hydro-Mechanical Capability at NAGRA (Swiss national co-operative for the disposal of radioactive waste) (2002, 2006, 2019).

**Search committees for professor positions** at various Universities, including EPFL, ETH Zurich, University of Grenoble, University of Montpellier, etc.

## SUPERVISED PH.D. RESEARCHERS

Prof. Laloui has supervised more than 40 Ph.D. theses and frequently supports the work of post-doctoral researchers and master's students. Many have resulted in distinguished awards, including:

- **Zeno Karl Schindler** 2019 Award (A. Rotta Loria).
- US Deep Foundation Institute (DFI) **Educational Trust 2018 Young Professor Paper Competition** for the paper "Performance-Based Design of Energy Pile Foundations" (A. Rotta Loria).
- **"First runner-up position"** at the US Deep Foundation Institute (DFI) Educational Trust 2011 Young Professor Paper Competition for the paper "Design of Piles with Dual Role of Structural Stability and as a Sustainable Source of Energy for the Heating and Cooling of Buildings" (A. Di Donna).
- **"Best European Ph.D. thesis in Geomechanics in 2010"** from the European Association ALERT Geomaterials (M. Nuth).
- **"Best European Ph.D. thesis in Geomechanics in 2009"** from the European Association ALERT Geomaterials (B. François).
- **"EPFL Chorafas Prize 2009"** (M. Nuth)
- **"2009 best PhD thesis"** from the "Association universitaire de génie civil" in France (M. Nuth)
- **"EPFL Zanelli Prize for a Master's Work"** (T. Meynet)
- **"Best European Ph.D. thesis in Geomechanics in 2008"** from the European Association ALERT Geomaterials (A. Koliji)
- **"Second position for the best European Ph.D. thesis in Geomechanics in 2008"** from the European Association ALERT Geomaterials (H. Péron)
- **"Second prize for 2003 best PhD thesis"** from the "Association Universitaire de Génie Civil" in France (C. Cekerevac).

## Keynote Lectures

Prof. Laloui has given over 50 keynote and invitational lectures in over 30 countries. This includes:

### **2023**

- **Keynote lecture**, "Energy geo-technology: a new era for geotechnical engineering practice," **17th Asian Regional Conference on Soil Mechanics and Geotechnical Engineering 2023**, Astana, Kazakhstan, August, 2023
- **Distinguished lecture**: "Smart exploitation of the renewable energy situated under our cities," Hong Kong University, July 2023.
- "Carbon Dioxide Injection into Deep Aquifers: A Geomechanical Perspective," **9th International Congress on Environmental Geotechnics (9ICEG)**, Greece, June 2023

- **European Conference on Geotechnical Engineering (17DECG)**, "Exploiting the renewable energy resources of our cities' underground," Bucharest, Romania, June 2023
- **International Conference on Advances in Structural and Geotechnical Engineering (ICASGE'23)**, "Smart exploitation of the renewable energy situated under our cities," Hurghada, March 2023.

## 2022

- **The Big 5, International Building and Construction Show**, "Innovation for a Sustainable Geotechnical Engineering Industry", Dubai, December 2022.
- **Northwestern Sustainability Lecture Series**, "Sustainable (geo-)energies: Global progress and existing challenges," Chicago, October 2022.
- **16<sup>th</sup> International Conference of the International Association for Computer Methods and Advances in Geomechanics** "Tailor-made soil properties by bio-geochemical means," Turin, August 2022.
- **XXVII Italian National Congress on Geotechnical Engineering for a Sustainable Development**, "Energy from Geotechnical Constructions: Analysis and Design," Reggio Calabria, July 2022.
- Vienna – **Terzaghi Lecture, Austrian Geotechnical Conference**, "Tailor-made soil properties by bio-geochemical means," Vienna, April 2022.
- **2nd International Conference on Energy Geotechnics**: "Field Monitoring and Simulations of Nuclear Waste Barrier Systems," San Diego, USA, April 2022.

## 2021

- **GE@2M** (Grand Est, Mécanique et Matériaux), "Fundamentals of Soils Desiccation," December, 2021.

## 2020

- **Kersten Lecture** at the **Geo-congress 2020** "Energy Geotechnology: A New Era for Geotechnical Engineering Society," at Minneapolis, Minnesota, USA, June 2020.
- Keynote lecture, **4th European Conference on Unsaturated Soils, "Bentonite clay barriers in nuclear waste repositories,"** Lisbon, Portugal, 2020.

## 2019

- State-of-the-art lecture, **7th International Symposium on Deformation Characteristics of Geomaterials**, "Geothermal structures: from laboratory testing to engineering design," Glasgow, 2019.
- Keynote lecture, **XVII European Conference on Soil Mechanics and Geotechnical Engineering**, "Energy Geotechnology: A New Era for Geotechnical Engineering Society," Reykjavik, 2019
- Keynote lecture, **1st Mediterranean Young Geotechnical Engineers Conference (MYGEC)**, "Tailor-made soil properties with novel bio-geo-chemical means," Bodrum, 2019.
- Keynote lecture, **DECOVALEX 2019 Symposium on Coupled Processes in Radioactive Waste Disposal and Subsurface Engineering Applications**, "Subsurface Energy Applications and the Importance of Coupled Processes in Shales," Brugg, 2019
- Keynote lecture, **XVI Pan-American Conference on Soil Mechanics and Geotechnical Engineering (XVI PCSMG)**, "Analysis, Design and Application of Energy Geostructures from the Building to the City Scale," Cancun, 2019
- Keynote lecture, **University of Minnesota 68th Annual Geotechnical Engineering Conference**, "Energy Geotechnology: A New Era for Geotechnical Engineering Society," Minneapolis, 2020.
- Keynote lecture, **XXVII Italian National Congress on "Geotechnical Engineering for a Sustainable Development**, "Energy from Geotechnical Constructions: Analysis and Design," Reggio Calabria, 2020.
- Keynote lecture, **2nd International Conference on Energy Geotechnics**, "Energy from Geotechnical Constructions: Analysis and Design," San Diego, 2020.
- Keynote lecture, **International Symposium on Energy Geostructures**. "THM behavior of bentonite-based materials," Nancy, 2019.

## 2018

- Keynote lecture, **International Symposium on Energy Geostructures**. "Analysis and design of energy tunnels and walls." Lausanne, 2018.
- Invited lecture, **Deep Foundations Institute**. "Analysis and design of energy tunnels and walls," Chicago, 2018.
- Keynote lecture, **7th International Conference on Unsaturated Soils**. "Gas shales: geomechanical challenges and analysis," Hong Kong, 2018.
- Keynote lecture, **ComGEo IV**. "Gas shales: geomechanical challenges and analysis," Assisi, 2018.

## 2017

- Keynote lecture, **7th Geotechnical Symposium with International Participation**, organized by the **Turkish Chamber of Civil Engineers in Istanbul**. "Design of energy geostructures," Istanbul, 2017.
- Keynote lecture, **2<sup>nd</sup> International Conference on Geo-Energy and Geo-Environment, GeGe2017** "Advances in energy piles design," Hangzhou, China, 2017.
- Keynote lecture, Workshop **"Shallow geothermal energy systems. Applications and perspectives."** "Design of thermos-active piles," University of Aveiro – Portugal, 2017.
- Keynote lecture, **"Bochum Underground Space Day 2017"** "Geomechanical solutions for Geo-Energy issues," Bochum, Germany, 2017.

## 2016

- Keynote lecture, **XVII French-Polish Colloquium of Soil and Rock Mechanics**, "Geomechanical solutions for Geo-Energy issues," Lodz, Poland, November 2016.
- Keynote lecture, **1<sup>st</sup> International Conference on energy geotechnics, ICEGT 2016 on Energy Geotechnics**, "Analysis of the vertical deformation of energy pile groups," Kiel, Germany, August 2016.
- Keynote lecture, **International mini-symposium Chubu - New concepts and new developments in soil mechanics and geotechnical engineering**, "Analysis of canister movements in an engineered barrier system," Nagoya, Aichi, Japan May, 2016.
- Keynote lecture, **8<sup>th</sup> Conference on Geoengineering**. Vysoké Tarty, Slovakia, June 2016.

## 2015

- Keynote lecture, **1<sup>st</sup> International Conference on Geo\_Energy and Geo\_Environment (GeGe2015)**, Hong Kong, December, 2015.
- Keynote lecture, **Sixth International Symposium on Deformation Characteristics of Soils**, Buenos Aires (Argentina), November 2015.
- Keynote lecture, **EAGE Geomechanics, and Energy workshop** "Geomechanical solutions for Geo-Energy issues," Celle (Germany), October 2015.
- Keynote lecture, **6th Asia-Pacific Conference on Unsaturated Soils (AP-UNSAT 2015)** "Testing of the Hydromechanical behavior of Shales," Guilin, China, October 2015.
- Keynote lecture, **Prague Geotechnical Days 2015** "Analysis of a volcanic ash slope subjected to wetting and drying cycles," Prague (Czech Republic), May 2015.

## 2014

- Theme lecture, **Environmental Geotechnics Congress** "Geomechanical solutions for CO2 sequestration." Melbourne (Australia), November 2014.
- Plenary lecture, **14th International Conference of Int. Association for computer methods and advances in geomechanics** (IACMAG), Kyoto (Japan), September 2014.
- Plenary lecture, **GeoShanghai 2014 International Conference**, Shanghai (China), May 2014.
- Plenary lecture, **6th International Conference on Porous Media**, Milwaukee, Wisconsin (USA), May 2014.
- Keynote lecture, **Annual meeting of the Mont Terri Consortium**. "THM simulation of canister movements in an engineered barrier system." Saint-Ursanne (Switzerland), February 2014.

## 2013

- "Multiphysical couplings in (geo)materials". Keynote lecture, **1<sup>st</sup> International Workshop on the Finite Element Code LAGAMINE**, Liège (Belgium), September 2013.
- "Hydromechanical analysis of a volcanic ash slope subjected to wetting and drying cycles." Feature lecture, **3rd International Symposium on Computational Geomechanics**, Krakow (Poland), August 2013.
- "Hydro-mechanically Coupled Processes in Rainfall-induced Landslide Modelling." Keynote lecture, **XVI French-Polish Colloquium of Soil and Rock Mechanics**, Montpellier (France), July 2013.
- "Geotechnical Analysis of Energy Geo-Structures". Keynote lecture, **European Geothermal Congress 2013**, Pisa (Italy), June 2013.
- "Geotechnical Analysis of Energy Geo-Structures". General report, International Symposium **CPEG 2013 Coupled Phenomena in Environmental Geotechnics**, Torino (Italy), July 2013.

- "Coupled analytical and numerical solutions of CO<sub>2</sub> injection induced surface uplift and caprock deflection". Keynote lecture, **3<sup>rd</sup> Sino-German Conference on Underground Storage of CO<sub>2</sub> and Energy**, Goslar (Germany), May 2013.
- "Advances in the analysis of thermo-active foundations and underground structures." Keynote lecture, **International Workshop on Thermo-active Geotechnical Systems for Near-Surface Geothermal Energy**, Lausanne (Switzerland), March 2013.

## 2011

- "Multiphysical Coupled Processes in Underground Nuclear Waste Disposal Problems." Plenary lecture, **Computational Methods for Coupled Problems in Science and Engineering IV**, Kos (Greece), June 2011.
- "Evidences on the deformation mechanisms of a Shale." Theme lecture, **5th International Symposium on Deformation Characteristics of Geomaterials (IS-Seoul 2011) IV**, Seoul (Korea), September 2011.
- "Geotechnical design of energy piles". Feature lecture, **2nd International Symposium on Computational Geomechanics**, Cavtat-Dubrovnik (Croatia), April 2011.

## 2010

- "Mechanics of unsaturated soils: concepts and applications" Plenary lecture, **3<sup>rd</sup> International Euro-Mediterranean Symposium on Advances in Geomaterials and Structures**, AGS'10, Djerba (Tunisia), May 2010.

## 2008

- "Numerical Simulation of an In-Situ Underground Experiment for Nuclear Waste Storage." Invited lecture at the **12th IACMAG Conference**, Goa (India), October 2008.
- "Enhanced viscoplastic modeling of soft soils" Keynote lecture at the **2nd International Workshop on Geotechnics of Soft Soils - Focus On Ground Improvement**, University of Strathclyde, Glasgow (U.K.), September 2008.
- "Geomechanical modeling of a natural slope affected by multiple slip surface failure mechanisms" Invited lecture at the **Intensive Course on Quantitative Risk Assessment and Risk Management**, Barcelona (Spain), September 2008.
- "Environmental Geomechanics, Concepts and Applications" Keynote lecture at the **33<sup>rd</sup> IGC International Geological World Congress**, Oslo (Norway), August 2008.
- "A THM framework for modeling clay barriers performance in underground nuclear waste storage." Keynote lecture at the **European Conference on Unsaturated Soils**, Durham (U.K.), July 2008.

## 2007

- "New insight into the unified hydromechanical constitutive modeling of unsaturated soils." Invited lecture, **3<sup>rd</sup> Asian Conference on Unsaturated Soils**, Nanjing (China), 2007.

## 2006

- "Numerical modelling of the geomechanical behaviour of a large slope movement: The Triesenberg landslide (Liechtenstein)." Invited lecture, JTC-1 (the joint ISSMGE, ISRM and IAEG Committee on Landslides and Engineered Slopes), **Workshop on the Mechanics and Velocity of Large Landslides**, Courmayeur (Italy), September 25<sup>th</sup> to 28<sup>th</sup>, 2006.
- "A THM stress-strain framework for modelling the performance of argillaceous materials in deep repositories for radioactive waste." Invited lecture, **Mont Terri Project, 10 Years Anniversary Workshop**, St-Ursanne (Switzerland), May 16, 2006.

## INSTITUTIONAL RESEARCH GRANT REVIEWS

Regular reviewer of research proposals for a range of international research institutions, including the Swiss National Science Foundation, the European Research Council (ERC), the National Research Council of Canada, the Austrian Science Fund and the French National Agency for Research.

## ORGANISATION OF INTERNATIONAL EVENTS

Over 40 events organized among them:

## 2023



- Ongoing director of the annual intensive course, **Energy geostructures analysis and design** in Lausanne, Switzerland, since 2018.

## 2020

- Biogeotechnics Webinar - 5 Little Known Keys for Successful Biogeotechnical Practice, Online, September 2020.
- Chair of the international **Winter School on Geomechanics for Energy and the Environment** in Villars, Switzerland, (2018-2020).

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## 2018

- Chair of the international **Symposium on Energy Geotechnics** in Lausanne, Switzerland. More than 260 participants from 35 countries, 26-28 September 2018.

## 2017

- Convener of the **15th Swiss Geoscience Meeting**, session "Shale-Gas, CO2 Storage and Deep Geothermal Energy". Davos, Switzerland, November 2017.
- 2<sup>nd</sup> International Workshop on **Advances in laboratory testing and modelling of soils and shales**, Villars-sur-Ollon, Switzerland, 18 - 20 January 2017.

## 2015

- Vice-Chair, **1<sup>st</sup> International Conference on Geo\_Energy and Geo\_Environment (GeGe2015)**, Hong-Kong, December, 2015.
- Chair 2<sup>nd</sup> International Workshop on **Geomechanics and Energy - the Ground as Energy Source and Storage**, Celle, 13 - 15 October 2015 (116 participants).
- One day session on **Shale-Gas, CO2 Storage and Deep Geothermal Energy**, 11<sup>th</sup>, 12<sup>th</sup> and 13<sup>th</sup> Swiss Geoscience Meetings, Lausanne, Fribourg and Basel, November 2013 (70 participants), November 2014 (200 participants), November 2015 (120 participants).

## 2014

- Chair Short course on **Introduction to multiphysical geomechanics**, Minneapolis, June 2014 (20 participants).
- Chair One-day session on **Geothermal Energy, CO2 Sequestration and Shale Gas**, 12<sup>th</sup> Swiss Geoscience Meeting, Fribourg, November 2014 (60 participants).

## 2013

- Chair International Workshop on **Geomechanics and Energy - the Ground as Energy Source and Storage**, Lausanne, 26 - 28 November 2013 (100 participants).
- Short course on **Introduction to multiphysical geomechanics**, Lausanne, 25 November 2013 (17 participants).
- **Geotechnique Symposium in Print 2013** on Bio- and Chemo-Mechanical Processes in Geotechnical Engineering, London, May 2013.
- International Workshop on **Thermo-active Geotechnical Systems for Near-surface Geothermal Energy**, sponsored by US-NSF, Lausanne, March 2013 (70 participants).

## 2012

- **5th Low Carbon Energy University Alliance Workshop**, Lausanne, November 2012 (30 participants).
- **International Workshop on Multiphysical Testing of soils and Shales**, Lausanne, September 2012 (80 participants).
- One-day session on **Geomechanics for Energy Production**, ALERT-Geomechanics Workshop, Aussois, France, October 2012 (220 participants).

## 2011

- Two sessions on "**Energy foundations**" at GeoFrontiers 2011 Conference, Dallas, Texas, March 2011.

## 2010

- ALERT Olek Zienkiewicz Course on "**Mechanics of Unsaturated Geomaterials**", EPFL, Lausanne, 5-9 July 2010 (60 participants).

- Six sessions on: "**Computational Models and Methods for Multiphysics Processes in Geomaterials, Biomaterials and other Multiphase Porous Media**". IV European Conference on Computational Mechanics, ECCM 2010, Paris (France), May 16-21, 2010.

## 2009

- **European Doctoral School of the ALERT-Geomaterials** on Failure in Multiphase Materials. Aussois (France), 15-17 October 2009 (102 participants).
- Two sessions: "**Multiphysics Modelling of Geo-environmental Engineering Problems**" and "**Multiscale Problems**". ECCOMAS Computational Methods for Coupled Problems in Science and Engineering, Coupled 09, Ischia (Italy), Jun. 8-10, 2009.

## 2008

- Training course on **THM Behaviour of Clays in Deep Excavation with Application to Underground Radioactive Waste Disposal**, EPFL, July 7-9, 2008 (50 participants).
- Special session on **Environmental Geomechanics** in the ASCE GeoCongress 2008, New Orleans, March 9-12, 2008.

## 2007

- **European Workshop on Hazard Analysis** (slides, rockfall, debris flow, snow avalanche) (50 participants), Lausanne, November 26-30, 2007.
- Special session on "Water in Pavements" – **International Conference on Advanced Characterisation of Pavement and Soil Engineering Materials**, Athens (Greece), 2007.
- Special session on **Thermo-Hydro-Mechanical Coupling in Geomaterials** in the Second International Conference on Porous Media and its Applications in Science, Engineering and Industry, Kauai, Hawaii, June 17-22, 2007.
- One day session in the ALERT Geomaterials annual meetings: "**Geomechanics of Structured Materials**", October 2007.
- Two special sessions on **Modeling of Multiphysics Processes in Soils** in the ASCE GeoDenver 2007 Conference, Denver, February 18-21, 2007.

## 2005

- **International Workshop "Water in Pavements WIP'05"**. Centro de Estudios y Experimentación de Obras Públicas (CEDEX), Madrid, 27 October 2005 (70 participants).
- **European Doctoral School of the ALERT-Geomaterials and DIGA Networks**. Aussois (France), 13-16 October 2005 (130 participants).

## 2003

- Special session on "Environmental Geomechanics" in the **International Conference on Environmental Geotechnics**, Singapore, 2003.

## 2002

- **International Workshop on Environmental Geomechanics**. Monte Verità, June 31- July 5, 2002 (80 participants).

## 2001

- **European Workshop on Geothermal Response Tests**. EPFL, October 25 & 26, 2001 (40 participants).

## 2000

- One day session in the ALERT Geomaterials annual meetings: "**Multiphysical processes in geomaterials**", October 2000, Aussois (France).

## 1996

- **International Workshop on Constitutive Modelling and Finite Elements Method Applications in Geomechanics**. EPFL, June 25 & 26, 1996 (40 participants).

## 1995

- **International Workshop "Mechanics of granular flows in an environment of natural disasters "**. EPFL, December 19 & 20, 1995 (50 participants).

## CONTRIBUTION TO INTERNATIONAL CONFERENCES

### 2019

- Member of the International Technical Committee of **AP-UNSAT2019 - 7th Asia-Pacific Conference on Unsaturated Soils**, August 23-25, 2019, Nagoya, Japan

### 2017

- Member of the Scientific Committee of the **6th GeoProc conference**, Paris 2017.
- Member of the Technical Advisory Committee of the **2nd International Symposium on Coupled Phenomena in Environmental Geotechnics (CPEG2)** – Leeds (U.K.), 2017.
- Member of the Scientific Committee of the International Conference on Computational Methods for Coupled Problems in Science and Engineering (**COUPLED PROBLEMS 2017**, Island of Rhodes (Greece), 2017.
- Member of the international technical committee of the **PanAm-UNSAT 2017: The 2<sup>nd</sup> Pan American Conference on Unsaturated Soils**, Dallas/Fort Worth, Texas, USA, 2017.
- Member of the scientific committee of the **7<sup>th</sup> Clay Conference** (Clays in Natural and Engineered Barriers for Radioactive Waste Confinement) Davos, 2017.

### 2016

- Member of the International Advisory Committee of the **Third European Conference on Unsaturated Soils (E-UNSAT2016)** in Paris, France.

### 2015

- Member of the International Advisory Committee of the **Sixth International Symposium on Deformation Characteristics of Geomaterials** Buenos-Aires, Argentina 2015.
- Member of the Scientific Committee of the **VI International Conference on Computational Methods for Coupled Problems in Science and Engineering (COUPLED PROBLEMS 2015)**, 18 - 20 May 2015, Island of San Servolo, Venice, Italy.

### 2014

- Member of the Scientific Advisory Committee of the **48th U.S. Rock Mechanics/Geomechanics Symposium ARMA 2014**, University of Minnesota, June 1-4, 2014.
- Member of the international scientific committee of the **1<sup>st</sup> International Workshop on the Finite Element Code LAGAMINE**, Liège (Belgium), 9-12 September 2013.
- Member of the international scientific committee of **UNSAT2014**, Sydney, Australia, July 2-4, 2014
- Member of the international scientific committee of **IACMAG2014**, Kyoto, Japan, September 22-25, 2014

### 2013

- Member of the international scientific committee of the **4th Canadian Conference on Nonlinear Solid Mechanics (CanCNSM2013)**, Montreal, Canada, July 23-26, 2013
- Member of the International Advisory Committee of the **2nd International Symposium on Constitutive Modelling**, Beijing (China), October 2012.
- Member of the International Advisory Committee of the **1st International Pan-American Conference on Unsaturated Soils**, Cartagena (Colombia), February 2013.

### 2011

- Member of the Technical Advisory Panel of the 4<sup>th</sup> Conference on Computational Methods for **Coupled Problems in Science and Engineering (Coupled Problems 2011)**, Kos (Greece), June 2011.

### 2010

- Member of the scientific committee of the International Conference **Mountain Risks: Bringing Science to Society**, Firenze (Italy), 24 - 26 November 2010.
- Member of the scientific committee of the **Eurock Conference**, EPFL (Switzerland), June 2010.

- Member of the International Advisory Committee of the **UNSAT2010 - International Conference on Unsaturated Soils**, Barcelona (Spain), 2010.
- Member of the scientific committee of the **2nd International Conference Marine Environment Damage to Coastal and Historical Structures**, La Rochelle (France), April 2010.

## 2009

- Member of the Technical Advisory Committee of the **International Symposium on Unsaturated Soil Mechanics and Deep Geological Nuclear Waste Disposal**, Shanghai (China), 2009.
- Member of the Technical Advisory Panel of the **1<sup>st</sup> International Symposium on Computational Geomechanics** (ComGeo I – previously NUMOG), Cote d'Azur (France), 2009.
- Member of the International Advisory Committee of the **4th Asia-Pacific Conference on Unsaturated Soils**, Newcastle (Australia), 2009.

## 2008

- President of the scientific committee of the **26<sup>th</sup> Annual Meeting of French Universities in Civil Engineering**, Nancy (France), June 2008.
- Chairman of a session at the **International Workshop on Unsaturated Soils**. Trento (Italy), 2008.
- Member of the International Advisory Committee of the **12th IACMAG Conference**, Gao (India), 2008.
- Member of the Scientific Committee of the **International Symposium Drought and Constructions**, Paris (France), 2008.

## 2007

- Chairman of the session "Microstructure and fabric "at the **2<sup>nd</sup> International Conference on Mechanics of Unsaturated Soils**. Weimar (Germany), 2007.
- Chairman of the session "Modelling and numerical analysis "at the **3<sup>rd</sup> Asian Conference on Unsaturated Soils**. Nanjing (China), 2007.
- Chairman of the session "Landfill covers and confinement barriers "at the **7<sup>th</sup> Japanese-Korean-French Seminar on Geo-Environmental Engineering**, Grenoble (France), 2007.

## 2005

- Chairman of the session "Performance-related properties of the pavement and subgrade material "at the **International Workshop "Water in Pavements WIP'05"**. Centro de Estudios y Experimentación de Obras Públicas (CEDEX), Madrid (Spain), 2005.
- Member of the scientific committee of the **International Conference Geotechnics in Cities**, Lille (France), 2005.
- Co-reporter on the state-of-the-art "Mechanical Testing in Unsaturated Soils" at the International Conference "EXPERUS 2005 - Advanced Experimental Unsaturated Soil Mechanics", Trento (Italy), 2005
- Member of the scientific committee of the **5th International Conference on Micromechanics of Granular Media**, Stuttgart (Germany), 2005.
- Member of the Conference Advisory Committee of the **6th International Conference on Ground Improvement Techniques**, Coimbra (Portugal), 2005.

## 2003

- Member of the Conference Advisory Committee of the **International Conference on Environmental Geotechnics**, Singapore, 2003.
- Member of the scientific committee of the **International Symposium of Shallow Foundations, FONDSUP**, Paris (France), 2003.
- Discussion leader in the **3rd International Conference on Unsaturated Soils**, Recife (Brazil), 2002.
- Member of the scientific committee of the **4th International Conference on Micromechanics of Granular Media**, Sendai (Japan), 2001.

# Publications

## SCIENTIFIC OUTPUT – BASED ON SCOPUS DATABASE

- **13** books

Over **380** articles, over **20 000** citations, **H-index=64** (A.D. Scientific Index), 2 highly cited papers (papers received enough citations to be placed in the **top 1%** of the academic field of Engineering based on a highly cited threshold for the field and publication year).

**The complete list of publications is available here:**

<https://infoscience.epfl.ch/search?Ln=fr&p=lyesse+laloui&f=>

## BOOKS

- *Analysis and Design of Energy Geostructures*. **L. Laloui**, A. Rotta Loria. Elsevier Publishing House, 1096 pages, ISBN : 9780128206232, 2019.
- *Energy Geotechnics*. A. Ferrari, **L. Laloui** (Editors). Springer International Publishing, 511 pages, <https://doi.org/10.1007/978-3-319-99670-7>, ISBN: 978-3-319-99669-1, 2018.
- *Energy Procedia - Volume 114*, Pages 1-7666 (July 2017) - Proc. 13th International Conference on Greenhouse Gas Control Technologies, GHGT-13, 14-18 November 2016, Lausanne, Switzerland. Edited by Tim Dixon, **L. Laloui**, and Sian Twinning.
- *Advances in Laboratory Testing and Modelling of Soils and Shales (ATMSS)*. A. Ferrari, **L. Laloui** (Editors). Springer International Publishing, 235 pages, Doi: 10.1007/978-3-319-52773-4, ISBN: 978-3-319-52772-7, 2017.
- *Energy Geostructures*. **L. Laloui**, A. Di Donna, G. Kong (Editors). China Architecture and Building Press, 255 pages, ISBN: 978-7-112-19661-6., 2016.
- *Géostructures énergétiques*. **L. Laloui**, A. Di Donna (Editors). Hermes Science Publications, 250 pages, ISBN: 978-2-7462-4577-8, 2015.
- *Energy Geostructures: Innovation in Underground Engineering*. **L. Laloui**, A. Di Donna (Editors). Wiley-ISTE, 250 pages, ISTE Ltd. and John Wiley and Sons, Hoboken, NJ, ISBN: 9781848215726. 2014.
- *Mécanique des sols et des roches*. Vulliet L., **Laloui L.**, J. Zhao. Presses Polytechniques Universitaires Romandes, 624 pages, ISBN 978-2-88074-961-3, 2016.
- *Multiphysical Testing of Soils and Shales*. Editors: **L. Laloui** and A. Ferrari. Springer, 978-3-642-32491-8, Springer Series in Geomechanics and Geoengineering, 2012. Since its online publication, there has been a total of **104,098**-chapter downloads for the eBook on SpringerLink. This means the book was one of the **top 25%** most downloaded eBooks in the relevant eBook Collection in 2017.
- *Mechanics of Unsaturated Geomaterials*. **L. Laloui** (Editor). Wiley-ISTE, 380 pages, 2010. ISTE Ltd. and John Wiley and Sons, Hoboken, NJ, ISBN 9781848212664.
- *Computer applications in geotechnical engineering*. Siegel TC, R. Luna, T. Hueckel, **L. Laloui** (Editors). ASCE Geotechnical special publication N°157, 2007.
- *Environmental Geomechanics*. L. Vulliet, **L. Laloui** & B. Schrefler (Editors). Publisher EPFL-Press. 423 pages; ISBN 2-88074-515-2. 2002.
- *Tests de réponse géothermique/Geothermische response tests*. W.J. Eugster & **L. Laloui** (Editors). Proceedings of the European Workshop on Geothermal Test Responses. Lausanne, 130 pages. Publisher GTV; ISBN 3-932570-43-X. 2002.

## Selected Media Appearances

Regular contributor to local and international media outlets.

### TV AND RADIO INTERVIEWS:

- **Site pour déchets nucléaires – Forum RTS, 12.09.2022**  
<https://www.rts.ch/play/tv/forum/video/forum-video-presente-par-esther-coquoz-et-renaud-malik22?urn=urn:rts:video:13379051>
- **“Un livre veut favoriser le développement des géostructures énergétiques”, RTS, 05.11.2019**  
<https://www.rts.ch/play/radio/cqfd/audio/un-livre-veut-favoriser-le-developpement-des-geostructures-energetiques?id=10804511>
- **“Géo Ingénierie: la promesse de Prométhée”- RTS, 25.05.2019**  
<https://www.rts.ch/play/radio/prise-de-terre/audio/geo-ingenierie-la-promesse-de-promethee?id=10425239>

- **“Séquestrer le CO2”- Journal de la télévision suisse romande & journal de la télévision suisse italienne.**  
<https://actu.epfl.ch/news/prof-laloui-interviewee-par-rts-au-sujet-de-la-sequ/>
- **“Finlande: un tombeau nucléaire pour l'éternité ?”- Radio Suisse Romande la 1ère.**  
<https://www.rts.ch/info/dossiers/quinze-minutes/10023635-finlande-un-tombeau-nucleaire-pour-l-eternite-.html#timeline-anchor-1543667123373>
- **“La géothermie, ce potentiel inexploité”- Radio Suisse Romande la 1ère.**  
<https://www.rts.ch/play/radio/tout-un-monde/audio/la-geothermie-ce-potentiel-inexploite-interview-de-lyesse-laloui-professeur-a-lepfl?id=9839478&station=a9e7621504c6959e35c3ecbe7f6bed0446cdf8da>
- **“Rencontre avec Lyesse Laloui”- “CQFD ”, Swiss National Radio – 24.3.2017 and 8.4.2018.**  
<https://www.rts.ch/play/radio/cqfd/audio/rencontre-avec-lyesse-laloui?id=8450929&station=a9e7621504c6959e35c3ecbe7f6bed0446cdf8da>
- **“Berges Instables” – Radio Suisse Romande**  
<https://www.rts.ch/info/suisse/9224238-accalmie-sur-le-front-des-intemperies-mais-la-prudence-reste-de-mise.html>
- **“Le Génie Civil face à la problématique des dangers naturels” - Guest of the Swiss National Radio – La Première**  
<https://pages.rts.ch/la-1ere/programmes/la-matinale/8857363-lininvite-dactualite-video-lyesse-laloui.html?anchor=8874671#8874671>
- **“Enfouissement des déchets nucléaires” - Guest of the Swiss National Radio – Couleur3**  
<https://www.rts.ch/play/radio/lininvite/audio/lininvite-professeur-lyesse-laloui-directeur-du-laboratoire-de-mecanique-des-sols-de-lecole-polytechnique-federale-de-lausanne-epfl?id=8577008>
- **"The Important Guest" of the Swiss National Radio RTS – 24.03.2017**  
<http://www.rts.ch/play/radio/cqfd/audio/rencontre-avec-lyesse-laloui?id=8450929>
- **“Où stocker le CO2,” RTS, 2013**  
<http://www.rts.ch/espace-2/programmes/babylone/5353311-ou-stocker-le-co2-20-11-2013.html?f=player/popup>
- **“Des bactéries pour durcir le sol,” RTS, 2013**  
<http://avidexperts.ch/videos/view/1795/10>
- **“Stocker le CO2 dans le sol,” RTS, 2013**  
<http://www.rts.ch/la-1ere/programmes/cqfd/5017970-dossier-stocker-le-co2-dans-le-sol-20-08-2013.html?f=player>
- **"RTS Interview about Landslides," RTS, 2013.**  
<http://www.rts.ch/la-1ere/programmes/cqfd/4820447-actu-29-04-2013.html?f=player/popup>
- **What to do with nuclear waste?" RTS, 2013.**  
<http://www.rts.ch/la-1ere/programmes/cqfd/4697006-la-gestion-des-dechets-nucleaires-14-03-2013.html?f=player/popup>
- **"Swiss concept of Nuclear waste disposal," RSI, 2012.**  
<http://reteuno.rsi.ch/modem/welcome.cfm?IDc=43321&IDd=1349737200>
- **"Extracting the heat from the ground", La Regione Ticino, 2012.**  
<http://lms.epfl.ch/files/content/sites/lms/files/shared/Nuclear%20waste%20storage/Interview-Lyesse-Radio-Chablais-19.01.2012.mp3>

## PRINT

- **“La Suisse va-t-elle enfouir son CO2 ou l'exporter?” - Tribune de Genève, 24heures, 01.11.2021**  
<https://actu.epfl.ch/news/will-switzerland-store-co2-underground/>
- **“En Suisse, le potentiel de la géothermie de surface est énorme”- Le Temps, 01.09.2021**  
<https://www.letemps.ch/sciences/suisse-potentiel-geothermie-surface-enorme>
- **“Les start-up proposent des solutions pour l'assainissement énergétique énergétique”- AGEFI, 6.09.2021**  
<https://actu.epfl.ch/news/laloui-research-group-in-an-article-by-agefi/>
- **“We have a duty to Switzerland, and to the planet”- ACTU EPFL, 14.01.2021**

- <https://actu.epfl.ch/news/we-have-a-duty-to-switzerland-and-to-the-planet-3/>
- **“Séquestration du CO2: remettre le carbone à sa place”- TRACÉS, 08.12.2020**  
<https://actu.epfl.ch/news/prof-laloui-interviewed-about-co2-sequestration-in/>
  - **“Innovations en sous-sol prêtes à faire surface”- Le Nouvelliste, 18.12.2019**  
<https://actu.epfl.ch/news/prof-laloui-talks-about-innovation-in-nouvelliste/>
  - **“EPFL champions energy geostructures”- ACTU EPFL, 01.11.2019**  
<https://actu.epfl.ch/news/epfl-champions-energy-geostructures-2/>
  - **“Pourquoi négliger une énergie indigène, renouvelable et durable !”- L'AGEFI, 26.02.2019.**  
[http://www.agefi.com/home/acteurs/detail/edition/online/article/pourquoi-negliger-une-energie-indigene-renouvelable-485656.html?utm\\_source=AGEFI+-+newsletter+quotidienne&utm\\_campaign=d383114c3c-EMAIL\\_CAMPAIGN\\_2017\\_09\\_12\\_COPY\\_07&utm\\_medium=email&utm\\_term=0\\_f79c96c933-d383114c3c-36569053](http://www.agefi.com/home/acteurs/detail/edition/online/article/pourquoi-negliger-une-energie-indigene-renouvelable-485656.html?utm_source=AGEFI+-+newsletter+quotidienne&utm_campaign=d383114c3c-EMAIL_CAMPAIGN_2017_09_12_COPY_07&utm_medium=email&utm_term=0_f79c96c933-d383114c3c-36569053)
  - **“Remettre le CO2 d'où il vient !”- Le Temps, 21.12.2018.**  
<https://www.letemps.ch/opinions/remettre-co2-dou-vient>
  - **“MeduSoil cherche à lever un demi-million”- AGEFI – 24.7.2018.**  
<https://agefi.com/actualites/entreprises/medusoil-cherche-a-lever-un-demi-million>
  - **“Des bactéries pour soutenir le sol de Rances”- journal La Région – 18.7.2018.**  
<https://www.laregion.ch/des-bacteries-pour-soutenir-le-sol-de-rances/>
  - **“A l'EPFL, l'avenir de l'homme mûrit sous terre”- Portait journal 24Heures – 18.6.2018.**  
<https://www.24heures.ch/portraits/epfl-lavenir-lhomme-murit-terre/story/28099906>
  - **“Techniques de demain cherchent à faire leur(s) trou(s)”- Swissinfo (20.3.2018)**  
[https://www.swissinfo.ch/fre/m/%C3%A9canique-des-sols\\_techniques-de-demain-cherchent-%C3%A0-faire-leur-s--trou-s-/439538](https://www.swissinfo.ch/fre/m/%C3%A9canique-des-sols_techniques-de-demain-cherchent-%C3%A0-faire-leur-s--trou-s-/439538)
  - **“La caverne nucléaire fait peur à la population” - Migros Magazine**  
<https://www.migrosmagazine.ch/la-caverne-nucleaire-fait-peur-a-la-population>
  - **“Augmentation des aléas climatiques: qui en est la cause?” – L'EXTENSION**  
<https://actu.epfl.ch/news/augmentation-des-aleas-climatiques-qui-en-est-la-c/>
  - **“L'EPFL envisage le stockage du CO2 comme une planche de salut” Terre et Nature - 9.02.2017**  
[www.terrenature.ch](http://www.terrenature.ch)
  - **“Déchets nucléaires – L'éternelle Question” Moustique - 8.02.2017**  
<http://www.moustique.be/>
  - **“Avec les déchets radioactifs, l'échelle du temps diffère” 24Heures**  
<http://www.24heures.ch/suisse/politique/Avec-les-dechets-radioactifs-l-echelle-du-temps-est-differente-/story/31606036>  
Tribune de Genève: <http://www.tdg.ch/suisse/dechets-radioactifs-echelle-temps-differe/story/28384563>
  - **“Sols biorenforcés : vers un changement de paradigme” - 31**  
<https://www.espazium.ch/sols-biorenforcs-vers-un-changement-de-paradigme>
  - **“L'EPFL s'attaque à l'injection de CO2 dans le sol pour lutter contre le réchauffement”**  
<http://www.arcinfo.ch/articles/lifestyle/techno-et-sciences/l-epfl-s-attaque-a-l-injection-de-co2-dans-le-sol-pour-lutter-contre-le-rechauffement-552014>  
arcinfo - <http://goo.gl/fjcTtr>.  
Le nouvelliste - <http://goo.gl/whGYvR>.  
aflz - <http://goo.gl/ZznzzW>  
infohightech - <http://goo.gl/akgDBA>  
Lacote - <http://goo.gl/bNdI0k>  
myscience - <https://goo.gl/cn5wO5>  
azocleantech - <http://goo.gl/HJj84t>
  - **L'EPFL teste le stockage du CO2 dans le sous-sol**  
24heures - <http://goo.gl/7n1V83>
  - **Forscher berechnen sichere Bedingungen für CO2-Lager**  
aggm.at - <http://goo.gl/xVZtNG>  
barfi.ch - <https://goo.gl/LnEidd>
  - **A new tool to ensure the safety of injecting CO2 underground**

[\\_phys.org](http://phys.org) - <http://goo.gl/mnp9FP>  
[scifeeds.com](https://goo.gl/1tAiAo) - <https://goo.gl/1tAiAo>  
[scienceandtechnologyresearchnews](http://goo.gl/uIOL2S) - <http://goo.gl/uIOL2S>  
[alternative-learning](https://goo.gl/egTpfS) - <https://goo.gl/egTpfS>

- **Comment changer le gaz en roche,” Interview in LeTemps, June 10, 2016.**
- **“Enfouire le CO2 à 7 km de profondeur”, Swiss Engineering, Revue Technique Suisse, January-February 2016.**  
<http://www.paperlit.com/webreader/read/swissengineeringkiosk/2016-02-01#/swissengineeringkiosk/swissengineeringrts/2016-02-01?page=6-7>
- **“Le stockage du CO2: une solution immédiate pour le climat,” Journal l’Extension, Printemps 2016**  
<http://www.lexension.com/journeauxPdf/html5/index.php?m=55#page/26>  
<http://www.lexension.com/21358/le-stockage-du-co2-une-solution-immEDIATE-pour-le-climat>
- **“Putting carbon back where it came from: underground,” EPFL News, 2015**  
<http://actu.epfl.ch/news/putting-carbon-back-where-it-came-from-undergro-12/>
- **“Gas de schist,” Efficience21, 2013**  
<http://actualites.epfl.ch/index.php?module=epflfiles&func=getFile&fid=16724&inline=1>
- **“Les experts, des boucs émissaires?”, Le Temps 2013.**  
<http://lms.epfl.ch/files/content/sites/lms/files/shared/Media/Articles/LeTemps-LAquila.pdf>
- **“Predicting the unpredictable,” EPFL Mediacom 2013.**  
<http://lms.epfl.ch/files/content/sites/lms/files/shared/About%20us/pdf%20files/FlashP4.pdf>
  
- **“Ce trésor qui repose sous le Léman”, Bilan, 2013.**  
<http://actualites.epfl.ch/index.php?module=epflfiles&func=getFile&fid=16281&inline=1>
- **“Stabilization of La Frasse,” L’Express, 2013.**  
<http://lms.epfl.ch/files/content/sites/lms/files/shared/About%20us/pdf%20files/Express%20-%20Glissement%20de%20terrain.pdf>
- **Upcoming Activity: International Workshop,” Deep Foundations, 2013.**  
<http://lms.epfl.ch/files/content/sites/lms/files/shared/Deep%20foundations.pdf>
- **“Geothermal energy and renewability: the Swiss case,” Le Temps, 2013.**  
<http://actualites.epfl.ch/index.php?module=epflfiles&func=getFile&fid=15715&inline=1>
- **“Interview of Lyesse Laloui,” Swiss Engineering Magazine, 2012.**  
<http://lms.epfl.ch/files/content/sites/lms/files/shared/About%20us/pdf%20files/stz1220125687%20Laloui.pdf>
- **“The Energy Piles”, Tracés, 2012.**  
[http://lms.epfl.ch/files/content/sites/lms/files/shared/Research/Energy%20Geostructures/TRACES%2012\\_03%206-10.pdf](http://lms.epfl.ch/files/content/sites/lms/files/shared/Research/Energy%20Geostructures/TRACES%2012_03%206-10.pdf)
- **“Pieux énergétiques”. TRACES, pp. 6-10, Feb. 2012.**
- **“How will Swiss radioactive waste be disposed of ?” EPFL Mediacom, 2011.**  
<http://actu.epfl.ch/news/how-will-swiss-radioactive-waste-be-disposed-of/>
- **“Optimale Auslegung ergibt besseren Nutzen.” Communication of Geothermie.ch, n°50, 15-18, 2011.**
- **“The EPFL wants to bury CO2,” 24 Heures, 2010.**  
<http://lms.epfl.ch/files/content/sites/lms/files/shared/About%20us/pdf%20files/24heures.pdf>
- **“Les Richesse du sol,” Flash, 2010.**  
<http://lms.epfl.ch/files/content/sites/lms/files/shared/About%20us/pdf%20files/Flash%20n3%202010%20Unite%20L%20Laloui.pdf>
- **“Analyse et modélisation de glissements de terrain.” TRACES, pp. 15-18, vol. 15/16, August 2010.**
- **“Intelligent realization of ground energy.” GeoDrilling international, pp. 28-29, vol. 141, April 2008.**
- **“La réponse vient du sol.” Chantiers et Rénovations, pp. 50-52, vol. 8, September 2006.**  
<https://www.rts.ch/play/tv/forum/video/forum-video-presente-par-esther-coquoz-et-renaud-malik22?urn=urn:rts:video:13379051>

More about media appearances: <https://www.epfl.ch/labs/lms/page-131128-en-html/>



## OTHER INFORMATION

Information on advised post-docs, master students, teaching activities, etc., is available in the following annual reports that cover the period 2008-2022: <https://www.epfl.ch/labs/lms/annualreports/>

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Google Scholar ID: <https://scholar.google.ch/citations?user=XgJfPH4AAAAJ&hl=fr>



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Sept. 2023