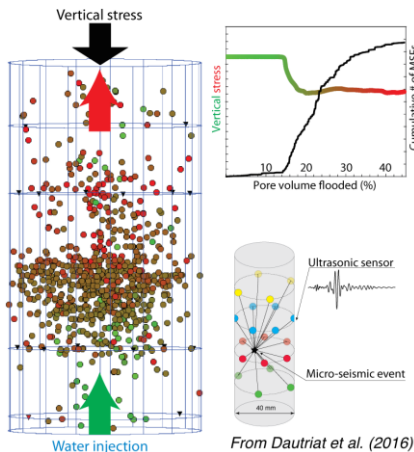


Seismic and micro-seismic signature of fluids in rocks: Bridging the scale gap

13 June 2016

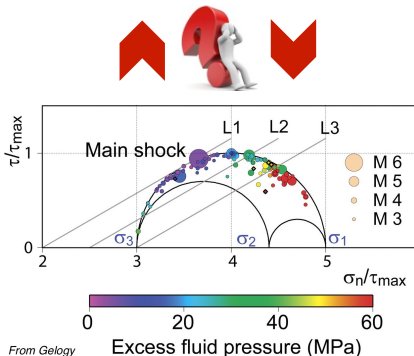
*Institute for Advanced Studies
University of Cergy-Pontoise (near Paris), France*



Workshop overview

We would like to contribute to a better understanding of how fluid injection/substitution or diffusion in the subsurface affects the pore/effective pressure, micro-seismic activity, rock strength, and the potential for faulting and fault reactivation. To this end, we have gathered contributions from both laboratory experimentation and field studies on reservoir rocks such as sandstones or carbonates, and tighter rocks such as granites. These rock types are commonly encountered in exploration for and production of oil & gas, CO₂ geo-sequestration, and recovery of geothermal energy.

A better understanding of the mechanisms involved in these operations is expected to impact positively on our ability to produce energy, whether fossil or renewable, and combat global warming by storing securely CO₂ underground.



Objectives

The aim of this workshop is two-fold: (i) discuss the commons and differences between the two scales of observation; (ii) identify the knowledge gaps and explore the possible ways to overcome them in order to reconcile laboratory experimentation and field data interpretation.

By bringing together experts from the two scales of observation, we hope to promote interactions between them and come up with guidelines on:

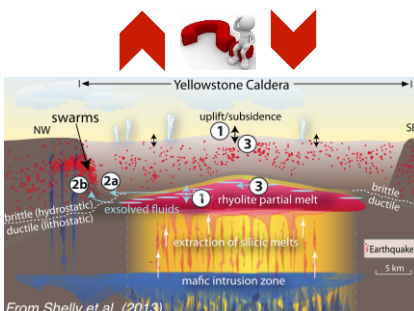
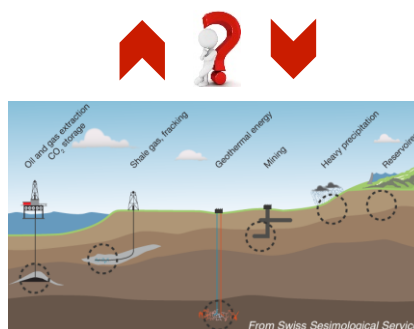
- How to optimise the design of laboratory experiments to provide the most relevant data for field-scale interpretation
- How to optimise the design of field testing/monitoring and making the best use of laboratory data
- Identify the best-suited theoretical tools for upscaling

Who should attend?

- Laboratory-scale geoscientists and engineers (rock physics, geomechanics)
- Field-scale geoscientists and engineers (geomechanics, geophysics, seismology,)

Confirmed speakers

- Sergey Stanchits (Schlumberger, USA)
- Francois Cornet (Univ. Strasbourg)
- Marco Bohnhoff (GFZ Potsdam)
- Doug Angus (Univ. Leeds)
- Georg Dresen (GFZ Potsdam)
- Tobias Mueller (CSIRO, Australia)



Scientific committee

Patrick Baud (Univ. Strasbourg)
Yves Guéguen (Ecole Normale Supérieure, Paris)
Joerg Renner (Univ. Bochum)
André Revil (Univ. Savoie)

Organising committee

Joel Sarout: joel.sarout@csiro.au
Christian David: christian.david@u-cergy.fr
Lucas Pimienta: lucas.pimienta@ens.fr
Students @ the GEC - UCP

Preliminary workshop format

- Welcome/Registration: Monday 13 June, 8:30 to 9:00 am
- 4 oral and 3 poster sessions
- 3 oral presentations per session: talk 20-25 min + Q&A 5-10 min
- Poster sessions during coffee and lunch breaks
- Closing discussion: lessons learned, suggestions, way forward

Registration fees

Regular: 20 euros (cash only)
Students and UCP staff: free

Accommodation

Please contact organisers for accommodation options in Cergy-Pontoise or in Paris

Venue

Auditorium "Salle de Conférences"
Site des Chênes 1
University Cergy-Pontoise
33, Boulevard du Port
95011 Cergy-Pontoise
France

Transportation from Paris City Centre

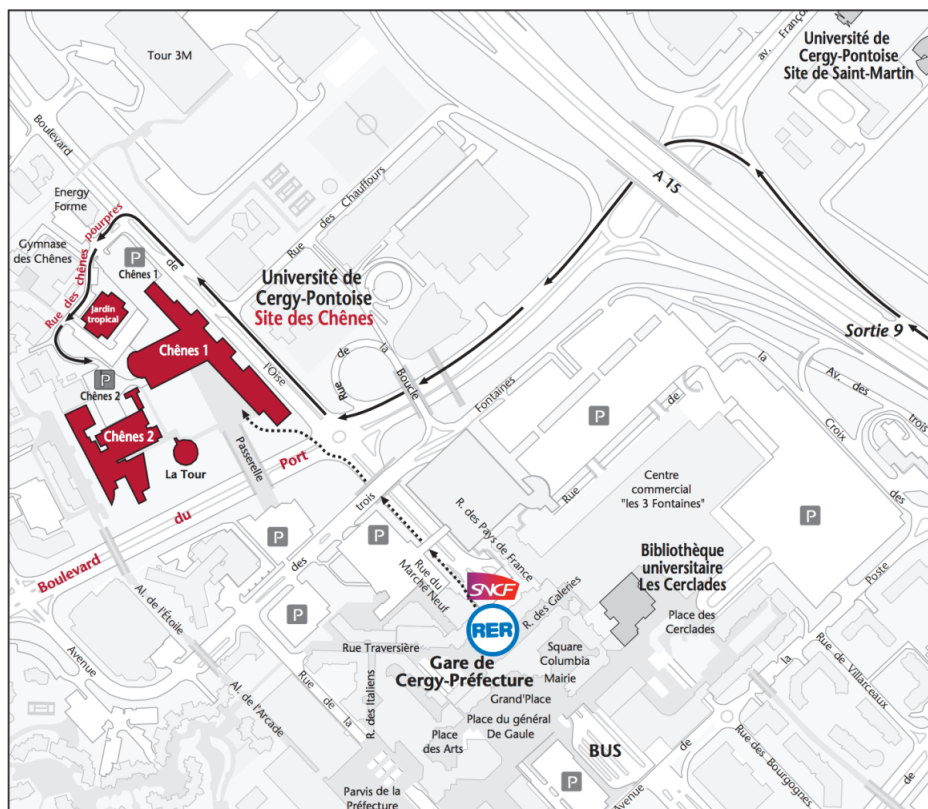
Public transports

(Paris RATP network):

Train line: RER A
Direction: "Cergy-le-Haut"
Station: "Cergy-Préfecture"

Car:

Autoroute #: A15
Direction: "Cergy-Pontoise"
Exit #: 9



For more details please refer to the following webpage

<https://www.google.com/maps/d/viewer?mid=z9Obhv8Wi23I.kVqasirwGLLI>