

EME International Seminar Series



Recent developments in laboratory testing of geomaterials, with emphasis on imaging

Cino Viggiani

Professor, Laboratoire 3SR (Soils, Solids, Structures and Risks)
Université Grenoble Alpes, France

Abstract:

This presentation reviews some recent technical developments and scientific accomplishments in laboratory experimental testing of geomaterials – with a special focus on imaging. Full-field techniques such as x-ray and neutron tomography have had a particular impact over the last two decades, and allowed the understanding of the micro scale processes ultimately driving the behavior at the macroscopic scale. Two other very recent, advanced experimental tools are briefly discussed: rheography and diffraction. These two modern techniques have shown increasing potential to further expand the portfolio of possibilities of experimental geomechanics, by expanding temporal resolution, and giving direct access to intra-granular strains, respectively. This contribution concludes by outlining the broader impact that this panoply of techniques has had and is expected to have in geomechanics and geotechnics at large.



Thursday, 14, December 2023 16:00 – 17:00, 3E301 & Teams (onsite and online)

Teams Meeting ID: 494 651 077 121

Passcode: jMapkQ