

Winter school on failure process of geomaterials

February 12-13, 2024

Jointly organized by

The international research network GEOMECH (Jianfu Shao, François Nicot, Olivier Millet)
Hohai University, Talent Innovation center for Multi Field Mechanics related Hydropower
Project (Ministry of Education, Ministry of Science and Technology) (Weiya Xu)

Introduction:

Failure of geomaterials and structures is a complex and multiscale process. It is still an open issue about understanding of underlying mechanisms and modeling of failure processes through multiscale numerical strategies. In most situations, several scales are involved, letting salient features emerge. The non-associated character of the materials considered is responsible for the existence of various bifurcation modes, leading to a variety of failure patterns.

In this two-half-days winter school, we have invited eminent international experts to present a up-to-date state-of-the art of recent advances and introduce the key research issues for tomorrow. We hope that this forum will help for vigorous and stimulating discussions.

Program :

February 12 (Paris time):

8:30 – 9:30, **Nicolas MOES**, Professor Centrale Nantes, France

[Diffuse or sharp crack modeling](#)

9:30 – 10:30, **Jidong ZHAO**, Professor, Hong Kong University of Science and Technology

[Computational modeling of failures in granular materials subjected to thermo-hydro-mechanical loads](#)

10:30 – 11:30, **Jean SULEM**, Professor, Ecole des Ponts ParisTech, France

[Multiscale modeling of strain localization](#)

February 13 (Paris time):

13:00 – 14:00, **Djimédo KONDO**, Professor Sorbonne University, France

[Variational approaches for damage and failure modeling](#)

14:00 – 15h00, **John RUDNICKI**, Professor, Northwestern University, USA

[Failure processes by localization and fluid injection](#)

All the lectures will be given online. The connection link is:

<https://univ-lille-fr.zoom.us/j/92886907530?pwd=MGkzOEZJUDRrYmgvc3ROcm4ybzlRZz09>

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