

## Point based numerical methods in geomechanics

**Coordinator:** Wei Wu, Vienna, Austria & Manuel Pastor, Madrid, Spain

### Monday, September 28

- 1.1 Introduction to the course, Wu & Pastor, 15 min
- 1.2 Introduction to SPH in geomechanics, Bui, 2 h
- 1.3 Constitutive modelling for fast granular flow, Wu, 1.5 h

### Tuesday, September 29

- 2.1 Applications of SPH models in geomechanics, Bui, 2 h
- 2.2 Depth integrated models for fast landslides and related phenomena, Pastor, 2h

### Wednesday, September 30

- 3.1 MPM and its application to snow, Gaume, 2 h
- 3.2 PFEM and its application to technical engineering, Larese, 2 h

### Thursday, October 1

- 4.1 LBM-DEM for porous media, Sun, 2 h
- 4.2 Students working on the topic would be given a slot to present a short version of what they do  
1.5 h
- 4.3 Table ronde with open discussion and questions 0.5h
- 4.4 Closure, Pastor and Wu, 15 min

### Speakers:

- Bui, Ha, Monash University, Australia
- Gaume, Johan, EPFL, Switzerland
- Larese, Antonia, University of Padova, Italy
- Pastor, Manuel, Technical University of Madrid, Spain
- Sun, Steve, Columbia University, USA
- Wu, Wei, BOKU, Austria