

Numerical and Experimental Assessment of Landslides and Debris Flow

December 3rd – 7th 2012, ETH Zurich, Switzerland

Context

Landslides and debris flow pose serious threats in mountainous terrains. The combination of high speed and enormous debris mass has devastating effects, pointing at the importance of reliable predictions. Yet serious insufficiencies in our knowledge and hence in the computational modeling of landslides and debris flow have to be admitted. The multi-phase and -scale nature of debris with varying composition in space and time due to complex segregation phenomena calls for an interdisciplinary approach, bringing together expertise from fields like engineering, geotechnics, physics, and environmental management.

Goals

The MUMOLADE EU network is inviting young researchers working in these fields to participate this Winter School. A main objective is to provide high quality training to a new generation of multidisciplinary researchers, capable of working in the challenging field of advanced modeling of landslides and debris flow. This one week school is held at the ETH Zurich with a one day excursion to the WSL in Davos. Teaching is focused on the assessment of gravitational flows by computations, experiments, and in nature. We provide a series of comprehensive lectures and talks on modeling techniques for granular flow, experimental possibilities in geotechnical laboratories and today's engineering practice in prediction and protection measures.

Preliminary list of lecturers:

Prof. Kolumban Hutter *guest scientist at Lab. of Hydraulics, Hydrology and Glaciology, ETH Zurich*

Prof. Sarah Springman *Institute for Geotechnical Engineering, ETH Zurich*

Prof. Simon Löw *Geological Institute, ETH Zurich*

Prof. Hans Herrmann *Institute for Building Materials, ETH Zurich*

Dr. Corinna Wendeler *Geobrugg AG, Switzerland*

Dr. Perry Bartelt *WSL Institute for Snow and Avalanche Research SLF, Davos*

Dr. Nuno Araujo *Institute for Building Materials, ETH Zurich*

Dr. Yolanda Deubelbeiss *WSL Mountain Hydrology and Mass Movements, Birmensdorf*

Amin Askarinejad *Institute for Geotechnical Engineering, ETH Zurich*



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