

SEPT. 21-27, 2023  
CHENGDU, CHINA

# The XIV Congress of the International Association for Engineering Geology and the Environment



## Session 8-4

Debris flows: mechanics, monitoring, experiments, assessment, prevention, and risk management

### Conveners



**Xiaoqing Chen**

IMHE, CAS



**Xiaojun Guo**

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**Marcel Hürlimann**

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The University of Tokyo



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**Jiawen Zhou**

Sichuan University



**Ming Chang**

Chengdu University of Technology

### Brief Introduction of the Session:

Debris flows are among the most dangerous natural hazards that threaten people and infrastructures in mountainous areas. The study of the formation mechanism of debris flows, along with the characterization of the associated erosion/deposition processes, is of paramount importance for hazard assessment, land-use planning, and design of mitigation measures, including early warning and assessment systems. In addition, the impacts of climate change on debris-flow activity must be considered and carefully analyzed, as the number of mountain areas prone to these events may increase in future.

A growing number of scientists with diverse backgrounds are studying debris flows. The difficulties in measuring parameters related to their initiation and propagation have progressively prompted research into a wide variety of laboratory experiments and monitoring studies. However, there is a need of improving the quality of instrumental observations that would provide knowledge for more accurate hazards maps and modeling. Nowadays, the combination of distributed sensor networks and remote sensing techniques represents a unique opportunity to gather direct observations of debris flows to better constrain their physical properties.

Scientists working in the field of debris flows are invited to present their recent advancements. In addition, contributions from practitioners and decision makers are also welcome. Topics of the session include:

- Field studies and documentation,
- Mechanics of debris-flow initiation and formation,
- Laboratory experiments,
- Monitoring, early warning and alarm systems,
- Impacts of climate change on debris-flow activity,
- Hazard risk assessment and mapping,
- Prevention measurements.

### IMPORTANT DATES



Abstract for Oral Presentation and  
Poster Submission Deadline

**Jun. 30, 2023**



Early Bird Registration Deadline

**Aug. 10, 2023**



Online Registration Deadline

**Sept. 21, 2023**

### SUBMISSION

#### For the full-length submission

The submission system is now open for full-length papers. The deadline for submission of full-length paper has been extended to May 31, 2023. Please read the guidelines for paper submittal prior to submitting your full-length paper.

Please read the guidelines prior to submitting your full-length paper or long abstract at <https://www.iaeg2023.org/cfp.html>

#### For the abstract submission

The abstract submission system for oral presentations and posters is open! If you would rather prepare an abstract for an oral or poster presentation, rather than submitting a full paper, please submit your abstract for consideration by June 30, 2023.

Please read the guidelines prior to submitting your abstract at <https://www.iaeg2023.org/cfa.html>



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