

DFHM7 Preliminary Program

April 18, 2019

Monday, June 10, 2019

8:30-8:50	Welcome Address and Announcements
	3 Theme: Processes/Mechanics
	<i>Moderator: Jeff Coe</i>
8:50-9:20	Nico Gray (UK) - Erosion-deposition waves in geophysical mass flows and the spontaneous formation of levees and surges
9:20-9:50	Richard Iverson (USA) [2441] Physically Based Debris-flow Models Should Satisfy Statically Balanced Initial States
9:50-10:10	Anne Mangeney (France) Simulation of mechanical processes in debris flows and of their signature on the generated seismic signal
10:10-10:30	Break
10:30-10:50	<i>Moderator: Jason Kean</i>
	Norifumi Hotta (Japan) [3249] How does particle-size segregation affect the fluidity of multi-granular debris flows?
10:50-11:10	Kimberly Hill (USA) [2568] Experimental and Computational Studies of the Influence of the Properties of a Debris Flow Matrix on its Erosional Behavior
11:10-11:30	Kahlil Cui (China) [2373] Numerical Investigation of Particle Size Segregation in Saturated Granular Flows using CFD-DEM Coupling Approach
11:30-1:00	Lunch
	4 Theme: Monitoring, Detection, Warning
	<i>Moderator: Liz Bowman</i>
1:00-1:30	Kate Allstadt (USA) [2395] Overcoming barriers to progress in seismic monitoring and characterization of debris flows and lahars
1:30-2:00	Brian McArdell (Switzerland) [2438] Monitoring, Detection, and Early Warning Systems for Debris Flows: Experience from Switzerland
2:00-2:20	Masaki Murasawa (Japan) [2386] Observations on the Development and Decay Processes of Debris Flows
2:20-2:40	Velio Coviello (Italy) [2471] Deciphering sediment dynamics in a debris flow catchment: insights from instrumental monitoring, topographical surveys and bedload sampling
2:40-3:00	Yi-Min Huang (Taiwan) [2413] The Vibrational Characteristics of Debris Flow in Taiwan
3:00-3:20	Break

3:20-3:40	Moderator: Mark Reid
	Marcel Hürlimann (Spain) [2396] Monitoring of rainfall and infiltration at the Rebaixader torrential catchment (Central Pyrenees)
3:40-4:00	Katy Barnhart (USA) [2510] Topographic change detection at Chalk Cliffs, CO using Airborne LiDAR and UAS-based Structure from Motion photogrammetry
4:00-4:20	Xiaojun Guo (China) [2426] Real-time observation of an active debris flow watershed in the Wenchuan Earthquake area, China -
4:20-4:40	Georg Nagl (Austria) [2407] Measurements of velocity profiles in natural debris flows: a view behind the muddy curtain
4:40-5:00	Dominique Laigle (France) [2394] Implementation of an Integrated Management Strategy to Deal with Landslide Triggered Debris Flows: the Valloire Case Study (Savoie, France)
6:00-8:30	Reception: MINES Geology Museum

Tuesday, June 11, 2019

6 Theme: Experiments/Modeling

Moderator: Marcel Hurlimann

8:00-8:30	Liz Bowman (UK) Particulate approaches to experimental and numerical modelling of debris flows
8:30-9:00	Dave George (USA) [2505] Seamless Numerical Simulation of a Hazard Cascade in which a Landslide Triggers a Dam-Breach Flood and Consequent Debris Flow
9:00-9:20	Dieter Rickenmann (Switzerland) [2435] Small scale debris-flow experiments on run-up height
9:20-9:40	Thad Wasklewicz (USA) [2919] Reproducibility of debris-flow fan physical modeling experiments
9:40-10:00	Coffee Break
10:00-10:20	Moderator: Mark Reid
	Rex Baum (USA) [2518] Parameter uncertainty in modeling debris-flow initiation during the September 2013 Colorado Front Range storm
10:20-10:40	Tsunetaka Haruka (Japan) [2414] Experimental Examination for Influence of Debris Flow Hydrograph on Development Processes of Debris Flow Fan
10:40-11:00	Christian Scheidel (Austria)[2472] Debris flow behaviour in super- and subcritical conditions
11:00-11:20	Masato Kobiyama (Brazil) [2445] Debris flow hazard investigation in a rural basin, Alto Feliz municipality (Brazil), with Kanako-2D

11:20-12:45	Lunch
5 Theme: Role of Disturbance (Fire/Climate change/Logging)	
Moderator: Dieter Rickenmann	
12:45-1:15	Fumitoshi Imaizumi (Japan) [2450] Effects of terrain on temporal changes in susceptibility of debris flows and associated hydrogeomorphic processes after forest harvesting
1:15-1:45	Luke McGuire (USA) [2442] Looking through the window of disturbance at post-wildfire debris flow hazards
1:45-2:05	Paul Santi [2956] Rainfall intensity limitation and sediment supply independence of post-wildfire debris flows in the western U.S.
2:05-2:20	Coffee Break
2:20-2:40	Moderator: Yoshifumi Satofuka
	Vinod Sharma (India) [2557] Debris flow hazards in Himalaya: climate change connect
2:40-3:00	Jeffrey Keaton (USA) [2543] Overview of the Geotechnical Effects of the January 9, 2018, Debris-Flow and Flash-Flood Disaster in Montecito, California, from Intense Precipitation on Recently Burned Slopes
3:00-3:20	Petter Nyman (Australia) [2563] A Novel Approach for Determining Risk of Water Supply Disruptions due to Post-Wildfire Debris Flows
3:20-6:30	Poster Session/Reception
7:00	Dinner on your own

Wednesday, June 12, 2019

2 Theme: Case Studies/Hazard Assessment	
Moderator: Liz Bowman	
8:00-8:30	Jeremy Lancaster (USA) [2418] The Santa Barbara and Ventura County, California, Debris Flows of 9 January 2018: A Review of Post-Fire Debris Flow Initiation Areas, Triggering Precipitation and Impacts
8:30-9:00	Alex Densmore (UK) [2430] Making Sense of Avulsions on Debris-Flow Fans

9:00-9:20	Jeff Farrell (New Zealand) [2385] Debris Flow Risk Management in Practice: A New Zealand Case Study
9:20-9:40	David Bonneau (Canada) [2383] Characterizing Debris Transfer Patterns in the White Canyon, British Columbia with Terrestrial Laser Scanning
9:40-10:00	Coffee Break
10:00-10:20	Moderator: Marcel Hurlimann
	Roland Kaitna (Austria) [2406] Hydro-meteorological trigger conditions of debris flows in Austria
10:20-10:40	Sophia Zubrucky (Canada) [2443] Regional calibration of a numerical debris flow runout model
10:40-11:00	Cristoph Graf (Switzerland) [2428] An Overview of more than a Decade of Applied Debris-Flow Runout Modelling in Switzerland: Challenges and Recommendations
11:00-11:20	Sara Rathburn (USA) [2512] Debris Flow Occurrence in Rocky Mountain National Park, CO
11:20-12:45	Lunch
2 Theme: Case Studies/Hazard Assessment	
Moderator: Dieter Rickenmann	
12:45-1:15	Mike Chard (USA) - Pound of preparedness is worth a pound of debris
1:15-1:45	Mattias Jakob (Canada) [2856] Debris flow hazard and risk assessments - a practitioner's view
1:45-2:05	Ting-Chi Tsao (Taiwan) [2532] Debris flow building damage level and vulnerability curve – A case study of a 2015 Typhoon event in northern Taiwan
2:05-2:20	Coffee Break
2:20-2:40	Moderator: Yoshifumi Satofuka
	Bianca Vieira (Brazil) [2515] Debris flow in Southeast Brazil: Susceptibility and Vulnerability Assessment of Buildings
2:40-3:00	Paul Duhart (Chile) [2519] The Santa Lucía landslide disaster, Chaitén-Chile (43.4°SL): origin and effects
3:00-3:20	Mark Reid (USA) [2444] Debris-flow Initiation Promoted by Extension of a Slow-moving Landslide
3:20-6:30	Poster Session/Reception
7:00	Dinner on your own

Thursday, June 13, 2019

7 Theme: Engineering/Mitigation

Moderator: Jeff Coe

8:00-8:30 **Johannes Hübl (Austria)** [2508] From practical experience to national guidelines for debris flow mitigation measures in Austria

8:30-9:00 **Ken Ho (Hong Kong)** [2558] Debris Flow Mitigation - Research and Practice in Hong Kong

9:00-9:20 **Nadine Feiger (Switzerland)** [2393] Scour and erosion experience on flexible debris flow nets

9:20-9:40 **Hua-Yong Chen (China)** [2424] Scour Depth Prediction behind a Check Dam by Overtopping Debris Flows

9:40-10:00 **Coffee Break**

10:00-10:20 *Moderator: Jason Kean*

Mattias Busslinger (Canada) [2553] Hitchhiker's Guide to Physical Debris Flow Mitigation – Overview of Existing Guidelines for Design, Construction and Operation

10:20-10:40 **Jiangang Chen (China)** [2381] Debris-flow Mitigation Measures and an Application Case in a Small-scale Watershed

10:40-11:00 **Shin-Kyu Choi (South Korea)** [2500] Roles of Barrier Location and Arrangement for Effective Debris Flow Mitigation: Assessment using SPH numerical modeling

11:00-11:20 **Nicoletta Sanvitale (UK)** [2539] Small scale impact on rigid barrier using transparent debris flow models

11:20-11:40 **Conference Wrap up**

2:00 Departure Debris flows in Chalk Creek Valley (2 day field trip)
