



Pre-Conference SHORT COURSE 2

Structure-from-Motion (SfM) techniques and applications for morphological monitoring

Trento, September 15 – 16, 2017

Course aims:

This course provides an introduction and hands-on-experience to the novel photogrammetric technology, Structure-from-Motion (SfM). If used properly, SfM can generate low-cost, high quality elevation models capable of detecting subtle morphological changes (see Figure below). Students will be given a short introduction of SfM techniques, and then guided through the entire dataset lifecycle of planning, acquiring, and processing. Finally, students will learn different opportunities to use the results for morphological detection.

Anticipated participants

PhD students, post docs, young researchers with interest in laboratory and field work in morphodynamics

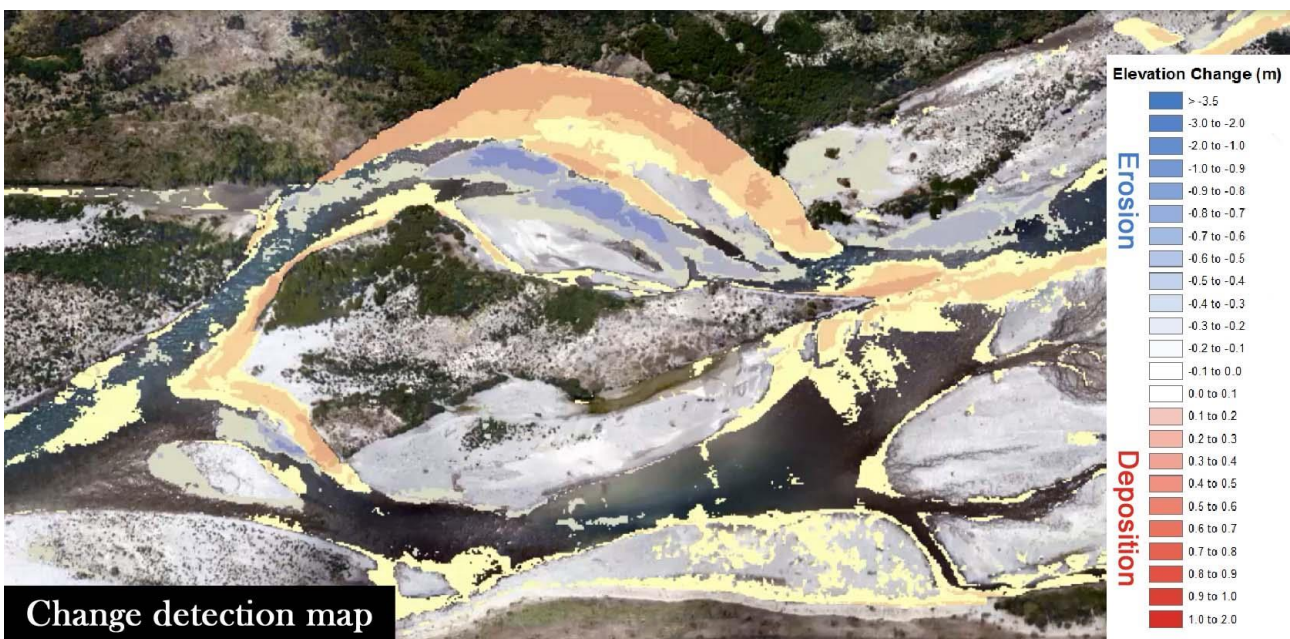


Figure: Morphological changes identified from two SfM-generated elevation models.



Instructors

Luke Javernick, University of Trento, IT

Course structure

The course is composed by four half-day modules:

- Day 1, morning session: SfM techniques and introduction to mission planning/design
- Day 1, afternoon session: Mission planning and design for field sites and lab experiments
- Day 2, morning session: Data collection and introduction to processing
- Day 2, afternoon session: Data processing, results, and application overview.

Venue

The course will take place at the Department of Civil, Environmental and Mechanical Engineering of the University of Trento: <http://www.dicam.unitn.it/en>

Registration and fees

To register, follow the link on the registration page of the RCEM website:

<http://events.unitn.it/en/rcem17/registration>

The registration fee is 170 Euro, and includes:

- Course material and lectures
- Lunches and coffee breaks for the 2 days of the course
- Bus transfer to Padova on Sunday, September 17, which will foresee field visits in the catchment of the braided Piave River.