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# Short Course for PhD students

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# METHODS FOR LANDSLIDE RISK ASSESSMENT AND MITIGATION

**3-6 November 2014**

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# METHODS FOR LANDSLIDE RISK ASSESSMENT AND MITIGATION

## OBJECTIVE AND OUTLINE

Assessment of hazards from rapid, destructive landslides requires quantitative predictions of hazard probability and intensity. Predictive methods have been developed in Geotechnical engineering. But an appropriate use of these methods depends on understanding of the varied and complex phenomena that constitute slope failure. The purpose of this short course will be to address links between understanding of landslide processes, analytical predictions and risk assessment. Each day consists of 3 hours of lectures and 1 hour discussion. Field trip on the last day.

### **Monday, 3 November 2014 (14.30 – 18.30)**

Introduction, typological classification of landslides, discussion of failure mechanics and characteristics, geological models for slope stability and runout assessment.

### **Tuesday, 4 November 2014 (14.30 – 18.30)**

Slope stability methods, examples. Failure behaviour analysis (runout) methods, examples.

### **Wednesday, 5 November 2014 (14.30 – 18.30)**

Rock fall dynamic analysis, hazard assessment and mapping, risk assessment, examples.

### **Thursday, 6 November 2014 (8.30 – 18.30)**

Field excursion to examine a site of a rock fall incident

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