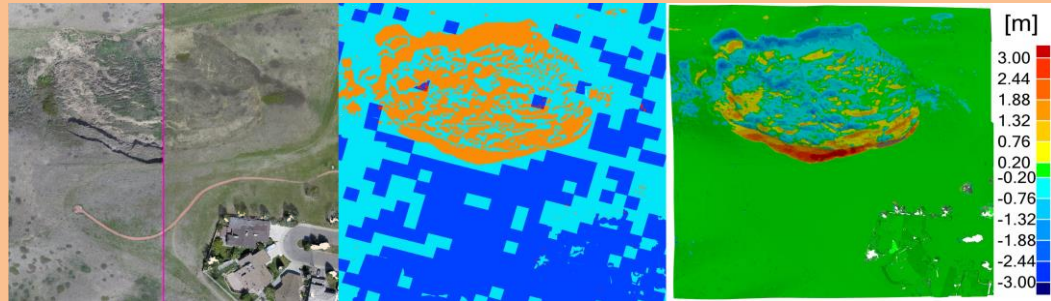


Open Seminar Series

Geoscience & Remote Sensing

On rolling stones and heavy metal - Automatic deformation measurement based on terrestrial scans in the context of geomorphology and accident research

Dr.-Ing. Daniel Wujanz
TU Berlin
February 28, 2017
12:40-13:30
CiTG room G



A current aim of ongoing research in the field of deformation measurement is to automatically determine geometric changes between several epochs with data captured by terrestrial laser scanners. A critical component within the process chain of deformation measurement is the transformation of captured point clouds into a reference coordinate system.

In this talk a surface-based alignment methodology that does not require artificial targets or extracted geometric primitives will be presented. A diagnostic procedure reveals deformations that occurred in between epochs and rejects them from the computation of transformation parameters that would otherwise cause erroneous registrations. The novel approach will be applied to different problem domains such as geomorphology and crash testing.