

Innsbruck Summer School of Alpine Research 2015 *Close Range Sensing Techniques in Alpine Terrain*

Obergurgl (Austria), July 5-11 2015



Organized by: University of Innsbruck, Faculty of Geo- and Atmospheric Sciences
International Society for Photogrammetry and Remote Sensing (ISPRS)

Objectives: The main goal of the Joint Summer School 2015 is to provide participants with innovative practical and methodological skills to characterize complex terrain and object features using close- and near range remote sensing techniques.

Teaching Methods: Theoretical lectures will be complemented by fieldwork assignments and hands-on data processing sessions using different novel softwares. The assignments will be divided into two different tracks. One track will focus on mountain research, the other on sensor and data processing techniques.

A variety of sensor systems will be available for data acquisition in the high mountain surroundings of the summer school venue, including terrestrial laser scanners, unmanned aerial vehicles and spectral cameras.

A poster session on the participants' current research interests and work will stimulate open exchange and discussion between students and lecturers in a relaxed atmosphere.

Thematic focus will be on mountain research, and will include vegetation characterization, (deformation) monitoring for glaciology, geomorphology and natural hazard research.

Technical focus will be on sensor and data aspects, such as sensor modelling, calibration, data acquisition, 2D and 3D data fusion, geometric methods for information extraction from point clouds and (multispectral) images and data quality assessment.

Theoretical focus will address critical steps within a processing chain, such as impact of a registration method, choice of stand points during data acquisition and derivation of deformation vectors, issues related to multispectral image analysis etc.

Practical exercises using predominantly open source software, deepen the conveyed knowledge and help all participants establish a workflow for their research.



Obergurgl. Image copyright: Ötztal Tourismus; Photographer: Alexander Lohmann

Venue: The Summer School will take place in and around Obergurgl, at almost 2000 m the highest village in Austria. The main venue is the Obergurgl University Center. Here lectures will take place and accommodation and food is provided to all participants. Directions will be available via the website.

Intended Audience: This summer school is designed for any well-motivated student; advanced graduate students, PhDs, post-docs and young researchers from any field, provided they have interest in these type of techniques.

How to join: Please register via the website until **December 30, 2014**. Each applicant is requested to send a one page CV and a short motivation letter. This information will be used by the organizational committee to decide which candidates will be accepted. At a later stage, participants will be requested to provide an abstract describing their poster contents.

When: 5.7.2015-11.7.2015

Where: Obergurgl University Center (Obergurgl, Austria)

Website: <http://www.uibk.ac.at/geographie/summerschool/>

Registration & Detailed Programme: Please visit website

Participation fee: 375 euro (includes accommodation and meals)

Important dates:

Registration deadline	30 December 2014
Communication of final decision of acceptance	15 January 2015
Deadline for full payment	15 February 2015

Lecturers: Hans-Gerd Maas (TU Dresden, Germany), Norbert Pfeifer (TU Vienna, Austria), Fabio Remondino (FBK Trento, Italy), Francesco Pirotti (CIRGEO - University of Padova, Italy), Martin Rutzinger (Austrian Academy of Sciences, Austria), Rudolf Sailer (University of Innsbruck, Austria), Johann Stötter (University of Innsbruck, Austria), Bernhard Höfle (University of Heidelberg, Germany), Sander Oude Elberink (University of Twente - ITC, The Netherlands), Roderik Lindenbergh (TU Delft, The Netherlands), Marco Scaioni (Tongji University, China), Daniel Wujanz (TU Berlin, Germany).

Other lecturers still to be confirmed: please visit the website for the updated list of lecturers and topics