Institut für Geographie

Wetterkreuz 15, 91058 Erlangen
www.geographie.nat.uni-erlangen.de

Research Training Course

Mountain Climate and Glaciers

Prof. Dr. Thomas Mölg / Dr. Tobias Sauter

Study Program: MSc Climate & Environmental Sciences
ECTS: 10 (summer term 2021) + 10 (winter term 2021/22)
No. of participants: max. 12
When: irregular (meetings); 2nd half of July (field trip)
First meeting: 12 May 2021, 10:00 to 12:00 hrs (room 00.147)

High-altitude environments exhibit the implications of climate change very strongly, for example by glacier loss. Associated effects are changes in the regional water budgets, new potential for natural hazards, and contributions to sea level rise. This Research Training Course (RTC) course will lead us to the South Tyrolean Alps and is built around the measurement of atmospheric and cryospheric processes at high altitude. In particular, we will try to understand the local atmosphere-glacier-hydrology system in the Martell Valley. Central to this effort will be the temporary installation of automatic weather stations, alongside other sampling methods (e.g., runoff, temperature/moisture valley transects), which will yield a rich "in-situ" data set. The first part of the RTC complements the modeling focus at our institute by the empirical side of climatology, and will train you in performing meteorological and glaciological measurements.

In the second semester, we will utilize the collected data for topical questions. Statistical analysis techniques as well as simple modeling approaches will deliver the basis. We will conclude this step with the summary of results. The second part will sharpen abilities how to use your own data for presenting complex relations in an understandable way, and in the light of climate change implications.

Costs: between 500 and 600 EUR; exact amount will depend on the ultimate number of participants.

photo: T. Mölg