

Research Seminar Program Summer 2024

When: Tuesday 14-16 (or as announced)

Where: via ZOOM

<https://fau.zoom.us/j/64136087779?pwd=ckNJR3dtTVRmWHArOFR5QVcvU3lnZz09>

Date	Topic	Lecturer
23.04.2024 14:00	"Selected topics on Ground Penetrating Radar"	Olexander Yaroyi Delft University
30.04.2024 14:00	<p>Multi-temporal elevation changes of Fedchenko Glacier (Tajikistan) from 1928 to 2021</p> <p>The Fedchenko Glacier in Tajikistan's central Pamir region, among Asia's longest glaciers, has been a focal point for scientific investigation spanning the 20th and 21st centuries, yielding a valuable historical dataset for Central Asia. Utilising topographic maps from 1928 and 1958, KH-9 spy satellite data from 1980, SPOT5 satellite data from 2011, and Pléiades data from 2017, 2019, and 2021, along with GNSS surveys for proper co-registration, this study explores elevation changes from 1928 to 2021. The overall mean rate of elevation change is -0.40 m yr⁻¹. Notably, the tongue's thinning rate is twice as negative as the long-term average in two sub-periods (1958-1980 and 2010-2021), possibly linked to a surge-like event in 1958-1980. Analyses of ERA5 reanalysis (1950-2021) and Fedchenko meteorological station data (1936-1991) reveal a dry anomaly in 1958-1980 followed by a wet anomaly in 1980-2010, potentially offsetting temperature-induced mass losses. The contemporary thinning rates align with a broader trend of generalised mass losses in the Pamir region.</p>	Fanny Brun University Grenoble
28.05.2024 14:00	<p>The CryoGrid community model - a toolbox for climate-driven simulations of permafrost, glaciers and snow</p> <p>Abstract: The CryoGrid community model is a modular toolbox for transient simulation of snow, permafrost and glaciers. We present applications from local-scale process studies to regional and global-scale mapping of glacier mass balance and permafrost temperatures.</p>	Sebastian Westermann University of Oslo
18.06.2024 17:00	<p>Glacier retreat and long-term water security in the tropical Andes</p> <p>The tropical Andes are among the regions most affected by water stress and insecurity due to increasingly adverse impacts from climate and socio-economic changes, and a large number of vulnerable people. Adaptation to changing water availability is therefore a priority but current realities in the tropical Andes show major challenges linked to, among others, political and institutional instabilities, weak governance structures and social conflicts. This</p>	Fabian Drenkhan PUCP Lima

	<p>talk untangles the multi-dimensional impacts from glacier retreat on water and people, and the perspectives for long-term adaptation in rapidly changing environments in the tropical Andes.</p>	
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