

Mass balance of glaciers and morphological changes using aerial imagery (two master thesis)

Where?

Ötztal Alps / Zillertal Alps

What?

Quantification of landscape changes such glacier retreat, moraine instabilities, debris flows and increased sediment transport using time series of aerial imagery.

Field work: Further details will be discussed

Data analysis: python and Qgis (previous knowledge is desire)

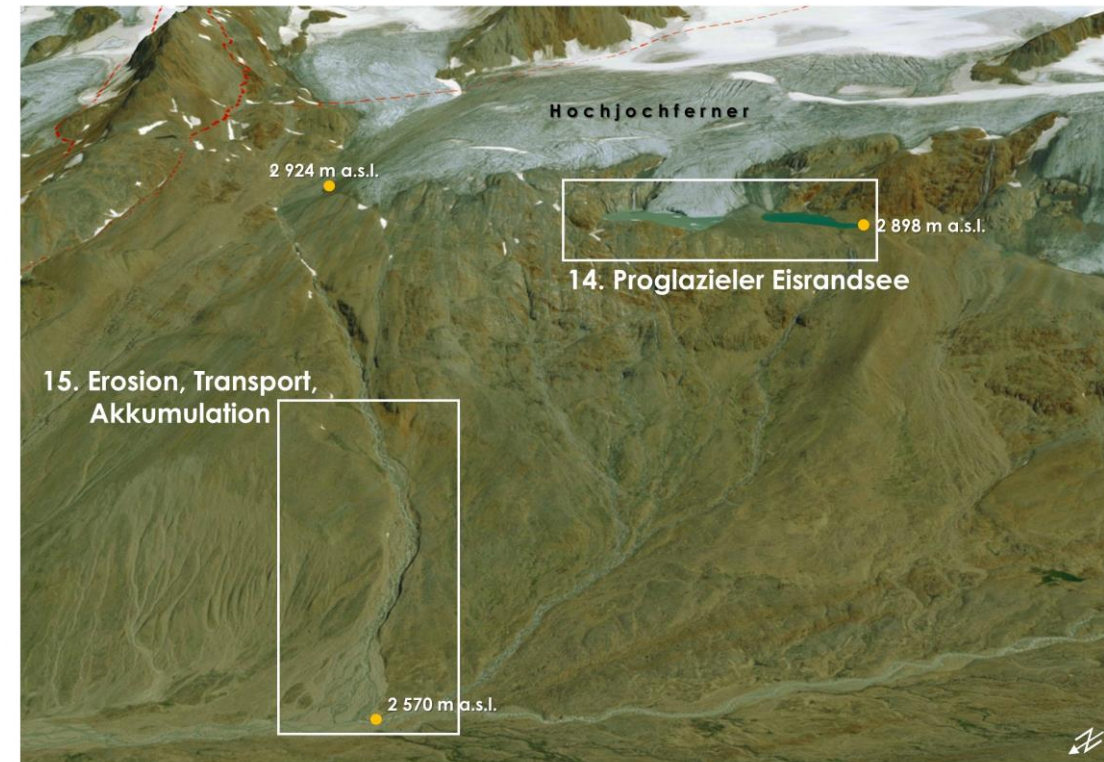
When?

Winter semester 2022

Language

English

Application with curriculum vitae and motivation letter
barbosa@biologie.uni-muenchen.de and
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Reference work:

Analyzing glacier retreat and mass balances using aerial and UAV photogrammetry in the Ötztal Alps, Austria. Geissler et al., 2021.
<https://doi.org/10.5194/tc-15-3699-2021>

You can support us with:

- The quantification of geodetic mass balance of the glaciers.
- The identification of landscape changes, i.e., moraine instabilities, debris flows, and increased sediment transport, using temporal series of aerial imagery.
- Ideas and feedback to improve the current workflows and interpretation of the results.

You bring with you:

- Knowledge of remote sensing, photogrammetry, and basic python.
- Interest in understanding earth surface processes in the context of climate change.
- Analytical and conceptual skills as well as independent work style
- Assertive communication, collaborative attitude, and creativity.

We offer you:

- An interesting and challenging job with great potential to contribute with your own ideas and experience and to further develop your personal skills.
- An exciting workplace in the RealityMaps headquarter (Dingolfinger Str. 9, 81673 München).
- The opportunity to collaborate with project partners at the BAdW.

