RoDynAlpS

Rock glacier dynamics in the Swiss Alps:
evolution and drivers at multiple spatio-temporal scales
(2023-2027)

Opening of three PhD and one Postdoc positions in spring 2023

Rock glaciers are amongst the most emblematic permafrost-related landforms of the mountain cryosphere. These ice-rich landforms are substantially affected by climate change and can accelerate dramatically when permafrost temperatures and water contents rise. At present, the state of rock glaciers in the Swiss Alps is largely unknown. In particular, the understanding of current and past rock glacier dynamics remains limited, together with the factors controlling both rock glacier characteristics and creep rates.

With the support of the Swiss National Science Foundation (SNSF), the Universities of Fribourg (UniFr), Lausanne (UNIL) and Zurich (UZH), and the WSL Institute for Snow and Avalanche Research (SLF) in Davos are launching the RoDynAlpS project, the first comprehensive and consistent study of past, present and regional evolution of rock glaciers in Switzerland. Through the combination of local and region-wide remote sensing analyses, integrative field-based studies and detailed numerical modelling, the project will provide a complete framework for understanding the dynamics of rock glaciers in the context of climate change.

RoDynAlpS is a 4-year project, starting in spring 2023. Four research positions are open for the entire duration of the project (3 PhDs and 1 post-doc) and distributed amongst the partner institutions.

PhD 1 (UNIL) – read more about the position and how to apply

PhD 2 (UZH) – read more about the position and how to apply

PhD 3 (SLF) – read more about the position and how to apply (en) / (de)

Postdoc (UniFR) – read more about the position and how to apply

The RoDynAlpS project is a highly collaborative project between the leading institutions (including research stays). It counts a dozen of Swiss and European external partners and is also embedded within several international projects and initiatives such as the IPA Action Group “Rock glacier inventories and kinematics” or the ESA-funded CCI Permafrost project. The successful candidates will be working at the forefront of rock glacier studies and actively contribute to these collaborations.

For more info about the project, please refer to this short summary: RoDynAlpS project summary

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