

LIST OF PUBLICATIONS

Publications in international peer-review journals and proceedings

Hilbich, C., Hauck, C., **Mollaret, C.**, Wainstein, P., and Arenson, L. U. (2021). Towards accurate quantification of ice content in permafrost of the Central Andes, part I: geophysics-based estimates from three different regions, *The Cryosphere Discuss.*, in review, ([doi:10.5194/tc-2021-206](https://doi.org/10.5194/tc-2021-206)).

Mollaret, C., Wagner, F. M., Hilbich, C., Scapozza, C., and Hauck, C. (2020). Petrophysical joint inversion applied to alpine permafrost field sites to image subsurface ice, water, air and rock contents, *Frontiers in Earth Science*, 8:85, 2020, ([doi:10.3389/feart.2020.00085](https://doi.org/10.3389/feart.2020.00085)).

Wagner, F.M., **Mollaret, C.**, Günther, T., Kemna, A., and Hauck, C. (2019). Quantitative imaging of water, ice, and air in permafrost systems through petrophysical joint inversion of seismic refraction and electrical resistivity data. *Geophysical Journal International*, Volume 219, Pages 1866–1875, ([doi:10.1093/gji/ggz402](https://doi.org/10.1093/gji/ggz402)).

Mollaret, C., Hilbich, C., Pellet, C., Flores-Orozco, A., Delaloye, R., and Hauck, C. (2019). Mountain permafrost degradation documented through a network of permanent electrical resistivity tomography sites, *The Cryosphere*, Volume 13, Issue 10, Pages 2557–2578, ([doi:10.5194/tc-13-2557-2019](https://doi.org/10.5194/tc-13-2557-2019)).

Hauck, C., Hilbich, C., and **Mollaret, C.** (2017). A time-lapse geophysical model for detecting changes in ground ice content based on electrical and seismic mixing rules. In 23rd European Meeting of Environmental and Engineering Geophysics, Malmö, 3.-7.9. 2017, ([doi:10.3997/2214-4609.201702024](https://doi.org/10.3997/2214-4609.201702024)).

Mollaret, C., Hilbich, C., and Hauck, C. (2017). Analysis procedures of an ERT monitoring network to assess mountain permafrost degradation rate. In 23rd European Meeting of Environmental and Engineering Geophysics, Malmö, 3.-7.9. 2017, ([doi:10.3997/2214-4609.201701997](https://doi.org/10.3997/2214-4609.201701997)).

Thesis

Mollaret, C. (2020). Geophysical monitoring and joint inversion to improve the quantitative characterisation of mountain permafrost, PhD Thesis, Department of Geosciences, University of Fribourg, Switzerland.

Mollaret, C. (2013, unpubl.). Determination of the roughness of the oceanic surface and ship detection from airborne GNSS-R signals. M.Eng. Thesis. Collecte Localisation satellites (CLS), Toulouse, France & EOST, Strasbourg, France.

Mollaret, C. (2012, unpubl.). Investigation of microseismic activity and subglacial discharge from the glacier bed at Engabreen, Norway. M.Sc. Thesis. Norwegian Water resources and Energy directorate (NVE), Oslo, Norway & EOST, Strasbourg, France.