

## Peer-reviewed Publications in 2015

- Andreassen, L., Huss, M., Melvold, K., Elveohy, H., and Winsvold, S. (2015). Ice thickness measurements and volume estimates for glaciers in Norway. *Journal of Glaciology*, 61(228):763–775.
- Barandun, M., Huss, M., Sold, L., Farinotti, D., Azisov, E., Salzmann, N., Usabaliev, R., Merkushkin, A., and Hoelzle, M. (2015). Re-analysis of seasonal mass balance at Abramov Glacier 1968-2014. *Journal of Glaciology*, 61(230):1103–1117.
- Faillettaz, J., Funk, M., and Vincent, C. (2015). Avalanching glacier instabilities: Review on processes and early warning perspectives. *Reviews of Geophysics*, 53(2):203–224.
- Finger, D., Vis, M., Huss, M., and Seibert, J. (2015). The value of multiple data set calibration versus model complexity for improving the performance of hydrological models in mountain catchments. *Water Resources Research*, 51.
- Fischer, M., Huss, M., and Hoelzle, M. (2015). Surface elevation and mass changes of all Swiss glaciers 1980-2010. *The Cryosphere*, 9:525–540.
- Gabbi, J., Huss, M., Bauder, A., Cao, F., and Schwikowski, M. (2015). The impact of Saharan dust and black carbon on albedo and long-term mass balance of an Alpine glacier. *The Cryosphere*, 9(4):1385–1400.
- Huss, M., Dhulst, L., and Bauder, A. (2015). New long-term mass balance series for the Swiss Alps. *Journal of Glaciology*, 61(227):551–562.
- Huss, M. and Hock, R. (2015). A new model for global glacier change and sea-level rise. *Frontiers in Earth Science*, 3(54).
- Jouvet, G. (2014). A multilayer ice flow model generalising the Shallow Shelf Approximation. *Journal of Fluid Mechanics*, 764:26–51.
- Jouvet, G. (2015). Multilayer Shallow Shelf Approximation: minimisation formulation, finite element solvers and applications. *Journal of Computational Physics*, 287:60–76.
- Li, H., Beldring, S., Xu, C.-Y., Huss, M., Melvold, K., and Jain, S. (2015). Integrating a glacier retreat model into a hydrological model - case studies on three glacierised catchments in Norway and Himalayan region. *Journal of Hydrology*, 527:656–667.
- Liu, Y., Moorea, J., Chenga, X., Gladstone, R., Bassis, J., Liuh, H., Weni, J., and Huia, F. (2015). Ocean-driven thinning enhances iceberg calving and retreat of Antarctic ice shelves. *PNAS*, 112(11):3263–3268.
- Lüthi, M. P., Ryser, C., Andrews, L. C., Catania, G. A., Funk, M., Hawley, R. L., Hoffman, M. J., and Neumann, T. A. (2015). Heat sources within the Greenland Ice Sheet: dissipation, temperate paleo-firn and cryo-hydrologic warming. *The Cryosphere*, 9:245–253.
- McNaab, R., Hock, R., and Huss, M. (2015). Variations in Alaska tidewater glacier frontal ablation, 1985-2013. *Journal of Geophysical Research*, 120:120–136.

- Naegeli, K., Damm, A., Huss, M., Schaepman, M., and Hoelzle, M. (2015). Imaging spectroscopy to assess the composition of ice surface materials and their impact on glacier mass balance. *Remote Sensing and Environment*, 168:388–402.
- Sold, L., Huss, M., Eichler, A., Schwikowski, M., and Hoelzle, M. (2015). Unlocking annual firn layer water equivalents from ground-penetrating radar data on an Alpine glacier. *The Cryosphere*, 9:1075–1087.
- Steinlin, C., Bogdal, C., Pavlova, P. A., Schwikowski, M., Lüthi, M. P., Scheringer, M., Schmid, P., and Hungerbühler, K. (2015). Polychlorinated biphenyls in a temperate alpine glacier: 2. model results of chemical fate processes. *Environmental Science & Technology*, 49(24):14092–14100. PMID: 26632968.
- Trüssel, B., Truffer, M., Hock, R., Motyka, R., Huss, M., and Zhang, J. (2015). Runaway thinning of the low-elevation Yakutat Glacier, Alaska, and its sensitivity to climate change. *Journal of Glaciology*, 61(225):65–75.