

Reconstruction of the surface mass balance of Morteratschgletscher since the Little Ice Age

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During the last five years measurements of the surface mass balance were made at about 20 different positions on Morteratschgletscher, Engadin. To reconstruct and investigate the changes in the mass balance a two-dimensional mass balance model is applied on the glacier. Meteorological data from synoptic weather stations located near the glacier are used as input to run the model. As there are only records of temperature and precipitation dating back to the 19th century the input is restricted to these two parameters. For the last 30 year the model can be driven by hourly values of temperature and precipitation and for the rest of the period monthly values have to be used.

The model results for the last years are compared to observations on the glacier. The poster will show the first result for the period 2002-2006.