High-resolution simulations of precipitation in North-Iceland

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Three months of precipitation in the complex terrain of N-Iceland are simulated with the MM5 model with a horizontal resolution of 3 km. The simulations are validated with about 40 raingauges located at the gridpoints of the model. The overall magnitude and the pattern of the precipitation are reasonably well reproduced, but the spatial variability of the precipitation is underestimated and the simulated pattern is smoother than the observed pattern. The skill of the simulations is compared for different weather situations. The study is partly motivated by frequent avalanches in the area.