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Meteorological and hydrological modeling of extreme precipitation events in S-Iceland

The atmospheric conditions during events of extreme precipitation in S-Iceland and the run-off on the ground is simulated numerically using parameters, including precipitation, from an atmospheric model (MM5). The results are compared to the available observations, indicating that the simulations are quite successful in the reproducing the event. In the atmospheric simulation, there are very large orographic gradients in precipitation, but no direct observations to verify these gradients. The increase in runoff provides however an indirect validation and the quality of the results are such that numerically simulated precipitation will be used in future hydrological studies in the region.