



Meteorological and evaluation datasets for snow modelling at ten reference sites: description and implication for research practices

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The Earth System Model-Snow Model Intercomparison Project (ESM-SnowMIP) is an international coordinated modelling effort that investigates snow schemes. Participants were provided with long-term in situ meteorological forcing data ranging from seven to twenty years and with thirty-year bias-corrected reanalysis forcing data at ten snow sites (one maritime, one arctic, three boreal and five mid-latitude alpine). As part of the project, both the long-term forcing and the evaluating datasets (snow depth, snow water equivalent, albedo, soil temperature and surface temperature) are being made freely available in an effort to facilitate consistency, continuity and reproducibility in snow research. The presentation will introduce the data, but also discuss the greater impact of data sharing and MIPs to meta-research, a field that investigates research practices, and to the scientific community. It is hoped that these datasets will be used as benchmarks for future model development and that their ease of use and availability will help model developers quantify model uncertainties and reduce model errors.