

Response to minor technical comment :

We thank the reviewer for this useful comment and added a remark on this in the case study section, where it reads now:

“ Besides observed daily discharge, the model requires catchment-scale daily precipitation as input. Most of the previous applications of the models used precipitation from one or several meteorological stations as input (Botter et al., 2007c, a, 2013; Ceola et al., 2010; Basso et al., 2015; Schaefli et al., 2013), ***Start NEW*** which is potentially limiting for the model performance since good area-averaged input estimates are critical. Recent progress in spaceborne precipitation observation, and in particular the Global Precipitation Measurement (GPM) mission, potentially offers an interesting new data source for area-averaged precipitation estimates, even in such complex terrain as the Swiss Alps (Gabella et al., 2017), with the drawback of covering only short historical periods. ***END NEW***. Here, we use the relatively new spatial precipitation data set of MeteoSwiss with a nominal resolution of 2.2 km and an effective resolution between 15 km and 20 km and extending back to 1961 (MeteoSwiss, 2014a). This data set can be assumed to give relatively good estimates of area-averaged precipitation (Paschalis et al., 2014; Addor and Fischer, 2015), even in mountainous areas where there are only few meteorological stations.”

Reference

Gabella, M., Speirs, P., Hamann, U., Germann, U., and Berne, A.: Measurement of Precipitation in the Alps Using Dual-Polarization C-Band Ground-Based Radars, the GPM Spaceborne Ku-Band Radar, and Rain Gauges, *Remote Sensing*, 9, 1147

10.3390/rs9111147, 2017.