Message from the Guest Editors

Dear Colleagues,

Weather radars are one of the basic data sources for analysis and forecast of precipitation. They provide measurements of high spatial and temporal resolution, and in conjunction with rain gauge measurements and others they provide a sufficiently accurate estimate of areal precipitation, which is essential to hydrological rainfall-runoff modelling. Weather radar data are irreplaceable especially in the case of precipitation nowcasting, which is based on extrapolation of the current state into the near future. Moreover, weather radar data and mainly the radar-derived estimates of areal accumulated precipitation are crucial to verification of forecasts given by numerical weather prediction (NWP) models. Last but not least, radar data are used to prepare initial conditions for the models and are also assimilated into NWP models to improve their predictions. Thus, the aim of this special issue is to map the current state and the progress of the use of radar data in both meteorological and hydrological forecasting and modelling.

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