



Benchmark verification of deterministic and ensemble forecasts for the river Rhine

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As part of the IMPREX project (IMproving PRedictions and management of EXtremes) we perform a benchmark verification study (tier 1) of an operational active hydrological forecasting system of the river Rhine. We assess the current forecast skill and contributions of current DA methods (e.g. error correction) to forecast skill. Our results will be compared with previous verification studies (Renner et al., 2009, Verkade et al., 2013) for the Rhine. Based on the results we will identify weaknesses and opportunities for future improvements. After model improvements and introduction of more advanced (ensemble) DA methods the benchmark will be conducted again later in the project (tier 2). From these experiments, we hope to show the relative importance of data assimilation, the availability of real-time hydrologic measured data in comparison with (improved) meteorological forecast skill and their effect on hydrologic predictability for the river Rhine.