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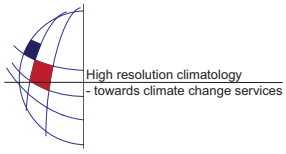


# Evaluation of precipitation nowcasting techniques for the Alpine region

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This study presents a large sample evaluation of different nowcasting systems over the Southern Swiss Alps. Radar observations are taken as a reference against which to assess the performance of the following short-term quantitative precipitation forecasting methods:

-Eulerian persistence: the current radar image is taken as forecast.
-Lagrangian persistence: precipitation patterns are advected following the field of storm motion (the MAPLE algorithm is used).
-NORA: novel nowcasting system which exploits the presence of the orographic forcing; by comparing meteorological predictors estimated in real-time with those from the large historical data set, the events with the highest resemblance are picked to produce the forecast.
-COSMO2, the limited area numerical model operationally used at MeteoSwiss
-Blending of the aforementioned nowcasting tools precipitation forecasts.

The investigation is aimed to set up a probabilistic radar rainfall runoff model experiment for steep Alpine catchments as part of the European research project IMPRINTS.