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Validation of remote sensed precipitation with the use of hydrological models - methodology and first results achieved in the frame of EUMETSAT H-SAF

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High variability of precipitation in space and time causes difficulties in proper validation of remote sensed rain rates using conventional ground measurements and observations. Insufficient number and spatial resolution of ground data and their questionable quality make this task even more difficult. Therefore, the idea of independent assessment of the quality of satellite-derived data with the use of operational hydrological models has been implemented in the frame of EUMETSAT.

In the paper, the assumptions and methodology of H-SAF hydrological validation will be described. Additionally, the preliminary hydrological validation results obtained for the six month time series of H-SAF precipitation rain rate will be presented. The quality of the rain rate were analyzed using two hydrological model MIKE 11 and Modelling Platform, run in Hydrological Forecasting Office in Krakow, Poland. The differences between the outcomes from these models will be discussed as well.