



## **The verification of the satellite-based precipitation products with satellite and ground measurements**

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Nowadays, the estimation of precipitation from satellite measurements is the more and more accurate topic. EUMETSAT, as the European organisation responsible for operating the Meteosat Second Generation satellites and distributing their products has also launched a project named Hydrology SAF which aims to elaborate methods to derive hydrological data such as precipitation amount, the width of ice cover and evaporation quantities from the MSG measurements which would be used later in hydrological models as input parameters. The Hungarian Meteorological Service takes part in this project in the validation of precipitation data. To reach this goal, several methods need to be worked out to be able to compare data at different spatial and time scales. Also, the parallax effect which is a mapping error causing mislocations of clouds due to the fact that the satellite sees the cloud tops from a relatively small angle needed to be corrected.

The presentation will reflect the first steps undertaken in the process of validation of H-SAF products. The first part will be focused on the method used for parallax correction in the case of precipitation products such as intensity and precipitation amount. After, the quantitative and qualitative methods applied for the validation of products will be presented. The qualitative comparison will mainly be based on radar measurements which provide a total coverage of Hungary in every 15 minutes. The quantitative validation will take into account radar data as well as rain gauge measurements all over Hungary.