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Local-level ground valuation of rainfall estimates by GPM IMERG Final run using the WegenerNet high-resolution precipitation data

Sungmin Oh (1,2), Ulrich Foelsche (1,2,3), Jürgen Fuchsberger (1,3), Gottfried Kirchengast (1,2,3)

(1) Karl-Franzens-Universität Graz, Institute for Geophysics, Astrophysics, and Meteorology/Institute of Physics (IGAM/IP), NAWI Graz, Austria, (2) FWF-DK Climate Change, University of Graz, Austria, (3) Wegener Center for Climate and Global Change (WEGC), University of Graz, Austria

We first performed a study on evaluation of Integrated Multi-Satellite Retrievals for Global Precipitation Measurement (IMERG) Early, Late, and Final rainfall estimates. Afterwards we proceeded to use the WegenerNet gridded precipitation data for detailed analysis of the performance of IMERG Final run data. In this current work, IMERG Final run estimates during the period from April to October for 3 years (2014-2016) are assessed with focus put on various parameters affecting the satellite rainfall retrieval techniques, for example, IR/PMW sensor data involved and seasonal rainfall variations or spatial variability. The WegenerNet gridded data (on a 200 m x 200 m grid, updated every 5-min) are generated from 1km-scale gauge measurements of its 151 weather stations through an Inverse Distance Weighted interpolation method. Given that the network is located within an area of about 15 km $\times$ 20 km (centered at 46.93 $^{\circ}$N/15.90 $^{\circ}$E in south-eastern Austria), two 0.1° x 0.1° IMERG grid cells can be selected for a direct pixel-to-pixel validation of IMERG data. This presentation will summarize the first study evaluating the three different IMERG runs with updated IMERG data (v4) and then show the results from the current study focusing on the IMERG Final run data.