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Hydrology and Earth System Sciences Discussions

Interactive comment on "Evaluation of radar-gauge merging methods for quantitative precipitation estimates" *by* E. Goudenhoofdt and L. Delobbe

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General comments:

I have the advantage to be the second referee. Having read the preceding opinion, I have much less to add. I also consider the contribution valuable and worth publishing with minor correction and/or explanations.

I agree with most points raised by my fellow referee. However, bellow you can find some more issues:

Specific comments:

I also miss the definition/explanation of the ORI data; however, in my opinion they are the ORIginal radar data (without any correction) - ?.

I miss the specification of the pixel size (radar areal element). One square kilometer?

What was the rationale for the average of the 9 pixels as a radar value for the given gauge? Drift of the precipitation or the uncertainty of the gauge position and/or antenna azimuth?

Some brief discussion about the assumption of the representation of the precipitation by radar areal element (pixel) or elements (in the case of the nine averaged pixels) and the raingauge 'point' measurement and the instrumental errors would be also valuable.

I have questions concerning the KRI, KRE and KED methods:

1) Have the authors used the variogram with (non-zero) nugget effect? If yes, what were its typical values?

2) The variograms were assumed to be isotropic. Did the authors try to investigate the isotropy of the precipitation field(s)?

Technical comments:

P 2984, 23 (proposition, if I understand well):

'The error distribution is the empirical cumulative distribution function of the radar-gauge ratios (daily values) expressed in dB'.

2998, Fig. 5: The vertical axis should be labeled as Empirical cumulative distribution [%].

Milan Salek, 4 December 2008

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 5, 2975, 2008.