

## ***Interactive comment on “Quality-based generation of weather radar Cartesian products” by K. Ośródk and J. Szturc***

**K. Ośródk and J. Szturc**

jan.szturc@imgw.pl

Received and published: 27 February 2015

We have prepared new version, but due to a high number of corrections we are attaching it in the two forms: (i) the old text with marked all changes, (ii) the new text only, as both WORD and PDF files.

The work is scientifically weak and almost poorly described. The introduction is poor and some relevant works are missing (Zhang et al 2004, Norman et al. 2010).

Answer: The present version of the paper is significantly changed in terms of clarity and references in Sect. 1 are complemented.

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Above all, there is not objective evidence that QI based products are better than traditional ones: there is not a quantitative analysis that clearly demonstrates the benefits of this new algorithm.

Answer: We have added new Section “Validation” in which the quality-based and traditional products are compared. We have shown some improvements in the 2D products generated using the quality-based approach.

It is not clear how equation (1) is derived (theoretical basis) and how the empirical coefficients are obtained.

Answer: We have explained the Eq. 1 in details in Sect. 3.1.

The data corrections are obscure and it is not completely described.

Answer: The corrections are made by RADVOL-QC system, which is too complex to be described in a few sentences, so we decided to include a reference to paper with detailed description instead.

Finally, the case study presented is poorly described, no information about radar site, weather conditions are available.

Answer: We have added some information about the case study.

There are not independent observations that validate the algorithm.

Answer: We do not have independent observations to validate the algorithm. We have used indirect way for validation, which is described in Sect. 5 with results.

Please also note the supplement to this comment:

<http://www.atmos-meas-tech-discuss.net/7/C4989/2015/amtd-7-C4989-2015-supplement.zip>

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Interactive comment on Atmos. Meas. Tech. Discuss., 7, 11711, 2014.

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