

Interactive comment on “Weather radar rainfall data in urban hydrology” by Søren Thorndahl et al.

Søren Thorndahl et al.

st@civil.aau.dk

Received and published: 27 January 2017

On behalf of the authors I would like to thank Remko Uijlenhoet for his profound review of the paper. We are grateful for minor comments, finding of spelling and grammatical errors, need for clarifications, etc., as well as more detailed comments/suggestions. Especially, section 3.1.2 on spatial resolution can be improved significantly by Uijlenhoet's comments, and we acknowledge that many issues in this section could have been explained better in the first submission of the paper. Moreover, we appreciate that Uijlenhoet have suggested several additional references which are indeed relevant to cite.

With regards to the general remark on the length of the paper. We agree that the paper have become rather large, and we've been struggling with this during the writing process. At an earlier stage we had a draft with more general radar physics and general uncertainties in estimating rain with radar – which are indeed relevant to include, but

C1

which also can be found in many other papers. We therefore decided to only include what we, subjectively, find relevant for direct applications within urban hydrology. With a reduction of the manuscript, we are afraid the common thread throughout the paper might be lost and we will be forced to refer to other papers for clarifications on different topics. We can try to remove some less important paragraphs here and there, but it will be difficult to remove whole sections without compromising on the clarity and continuity of the paper.

With regards to the suggestion to add one or two examples on urban hydrological applications of weather radar. This is indeed a good idea, which was also discussed by the authors during the writing process. Although one or two examples might be insufficient to cover all urban hydrological applications of weather radar, it could be relevant to include examples where we think application of radar rainfall data might contribute the most to the field. In line with the example on spatial resolution, we could e.g. include an example of a flow forecast based on ensemble radar nowcasts with different lead times. Adding a figure or two might also enhance the readability of the paper.

On behalf of the authors Søren Thorndahl

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., doi:10.5194/hess-2016-517, 2016.

C2