

Interactive comment on “Airborne laser scan data: a valuable tool to infer partial beam-blockage in urban environment” by R. Cremonini et al.

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Received and published: 10 August 2016

The authors wish to thank the anonymous reviewer for the constructive remarks

Some minor revision are necessary: 1) The paper refers to a weather radar beam blockage. It is better to change the title to put in evidence it.

The paper title has been modified accordingly with reviewer's suggestion

2) In section 2 (page 2, rows 46-54) you said that laser scanning are already completed or programmed in different countries. In section 4 (page 5, rows 45-48) it is reported that airborne laser campaigns take place rarely. I would better address this concept in the conclusions, saying that laser for the proposed methodology periodic ALS campaigns should be performed in order to make the methodology itself even more useful.

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3) In the "conclusions" (page 6, row 16-18) you say that the proposed results can be used to redefine the scan strategy of a weather radar in urban areas. That is true, but with the limitations described before in the text. The methodology is very good if you have all the needed data and, potentially, money to perform the campaign. I think this fact could be explained better.

The authors agree with the reviewer's comment, completing the conclusions as follow:

"First of all, up-to-date ALS data are needed. The case of the Korskela Forsby chimney is a clear example: the expected beam-blockage, derived from ALS campaign on 2008, is not in agreement with recent weather radar observations due to the obstacle demolition. As economic and processing limitations of laser scan data decrease, data coverage and data availability increase. Moreover, in urban landscape, campaign cost reduction and representativeness improvement can be achieved by the synergical use of airborne, mobile and terrestrial laser scans (Turner, 2013)."

and adding the following reference:

Turner, Ashleigh B. and Colby, Jeffrey D. and Csontos, Ryan M. and Batten, Michael 2013. Flood Modeling Using a Synthesis of Multi-Platform LiDAR Data. *Water*, 5, 1533

Interactive comment on Atmos. Meas. Tech. Discuss., doi:10.5194/amt-2016-76, 2016.

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