

Interactive comment on “The effect of flow and orography on the spatial distribution of the very short-term predictability of rainfall” by L. Foresti and A. Seed

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This paper investigates the predictability of precipitation as a function of spatial scale and geographic location. The paper is very well written and very original. The scientific analyses presented in the paper are of high quality. One think that I particularly noted was that issues with the results related to radar data quality are properly addressed and discussed. I have a few minor remarks that are given below.

1. On p. 7750, lines 11-13, it is stated that the shorter lifetimes on the inner parts of the Victorian Alps are likely caused by the lower accuracy of the radar measurements. Can you explain why the lower quality would reduce the lifetime of the storms? Is it because noise in the data reduces the correlation function?

2. On p. 7751, line 3-5 it is stated that the S-band probably cannot measure the precipitation at the same spatial resolution as the C-band radars. Can you explain why this is the case? Does the S-band radar have an antenna that yields a wider beam than the antennas of the C-band radars (at C-band of course)?
3. On p.7753, in the discussion of the use of X-band radars for nowcasting, when talking about predictabilities on the order of 1 minute, how relevant is this discussion? How useful would forecasts with lead times of only 1 minute actually be in a practical sense? Things like the time it takes raindrops to fall to the ground and the effect of the horizontal displacement of these drops due to wind will start to play significant roles at these scales.
4. On p.7754 (line 25)-7755 (line 2), Why is a discussion of results that were not observed included here?

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