

Interactive comment on “Observing wind, aerosol particles, cloud and precipitation: Finland’s new ground-based remote-sensing network” by A. Hirsikko et al.

Anonymous Referee #2

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The paper from Hirsikko et al., describes the new Finland’s ground-based remote-sensing network. The introduction and network and instruments description are well written and balanced. The section 4 instead has some deficiencies. It focuses on Doppler lidar without making use of the other instruments (Polly could be used for comparison and assessment for example) even without a previous discussion about motivation of it. Discussion about the observed differences (section 4.2.1) is only qualitative and cannot support the statement “we are able to consider them in data analysis and subsequent conclusions” reported in the final section. Too strong conclusion is reported for section 4.3.2 “This example has demonstrated the capability of Doppler

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lidar network for air-quality monitoring purposes”. Layers identification and origin identification through backtrajectories is an important piece of information but for sure not sufficient for air-quality purposes.

In the following few specific comments:

Page 7253, line 12: check the EARLINET acronym

Page 7265, line 4: typo error uncalibrated

Page 7266, description of fig 2. The apparent increasing of the ABL top height during the night is typical in Finland? Which is the reason of this behavior?

Page 7275, line 16: typo error three

Table 5: not easily readable. I suggest adding some columns and splitting the wind speed and direction results

The English should also be checked throughout the paper.

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