

## ***Interactive comment on “Aerosol profiling with the JenOptik ceilometer CHM15kx” by M. Wiegner and A. Geiß***

### **Anonymous Referee #1**

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The paper presents a very detailed methodology for the calibration of ceilometer data, in order to maximize the use of these instruments, concerning their potential in aerosols profiling. Considering the large number of such available instruments, the methodology presented is extremely valuable to extend our network capabilities for vertically resolved aerosol information. The paper is well structured and written and could be of great help to ceilometer users. There are only few points that eventually the authors should clarify:

Overlap correction: It is not clear in the paper how the authors estimated the overlap correction. Do they simply integrate down to the 150m and then assume constant aerosol load below (so they don't use any overlap correction). Please be more specific.

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Lidar ratios: The authors present lidar ratios for certain cases deduced from the synergy with the Cimel. These have a reasonable mean value but a wide range. Are the low values (around 20sr) reasonable for Munich? How do these compare with ones estimated with the Raman lidar of Munich?

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Interactive comment on Atmos. Meas. Tech. Discuss., 5, 3395, 2012.

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