

Interactive  
Comment

## ***Interactive comment on “Performance of a mobile car platform for mean wind and turbulence measurements” by D. Belušić et al.***

**J. Reuder (Referee)**

joachim.reuder@gfi.uib.no

Received and published: 28 March 2014

General comment:

The availability of reliable and accurate car based turbulence measurements will indeed distinctly enhance the measurement capabilities in the field of atmospheric boundary layer research. In addition to the investigation of typically shallow stable boundary layers as main motivation given by the authors, I also see a number of other applications of such a system, e.g. with the respect to surface heterogeneity on the turbulence structure and turbulent fluxes. The paper is well structured, concise and well written and therefore easy to read. It's scope and content in presenting and validating a novel measurement platform for turbulence investigations in the surface near atmospheric

Full Screen / Esc

Printer-friendly Version

Interactive Discussion

Discussion Paper



boundary layer is clearly suitable for AMT. I recommend to accept the paper after the application of some minor revisions.

Specific comments:

My short interpretation on the wind speed components in Figure 3 would be; v-component shows good agreement; the u-component measured by the car seems to be systematically ca. 0.5-1 m/s lower than the tower measurements; the w-component is only weakly correlated; that should be discussed a bit more in detail; In addition to and for an improved interpretation of figure 3, I would think that a x-y scatter plot, with the mast data on the x-axis and the car data on the y-axis and different symbols/colors for the different car speeds would be very helpful.

I would also suggest to replace plots 4 and 5 by corresponding scatter plots; that would for sure give a clearer picture of the influence of the car speed by use of different symbols/colors and also enable to indicate the variability of the tower data during the measurement/averaging interval

There are unusual characters instead of “-“ in the doi of some of the references (Lenshow 1986 and 1994, Mahrt 1998, Mayr 2002, Straka 1996, Tjernström 1991, Vickers 1997, Williams 2000)

---

Interactive comment on Atmos. Meas. Tech. Discuss., 7, 949, 2014.

Full Screen / Esc

Printer-friendly Version

Interactive Discussion

Discussion Paper

