



Simultaneous wind measurements by Lidar and Sodar

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A general feature of remote sensing techniques is their dependence on environmental conditions leading to unavoidable interruptions of time series. If deleterious conditions for a particular remote sensing system are correlated with the physical variable to be observed, the resulting statistics are biased. This can be a problem for example for the estimation of wind energy yield at candidate wind farm sites. Here we present simultaneous measurements of a newly developed compact frequency modulated continuous wave wind lidar and a Doppler Sodar. The aim of the field test is to demonstrate the mutual backing of these technologies. Since conducive and deleterious environmental conditions for the operation of Lidar and Sodar are nearly uncorrelated, we want to show that the synthesis of simultaneous measurements opens up a way towards continuous and quality-controlled wind measurements.