



Remote sensing in wind energy

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Remote sensing of the wind has not only the opportunity to replace tall meteorological towers, but also to do measurements in very different ways, which could be useful for wind energy research. In this contribution we review the recent activities and experiences with laser based remote sensing (lidars) for wind energy at Risø-DTU in Denmark. We try to answer the question of whether lidars, both pulsed and continuous wave, are precise enough and whether their availability is sufficient for resource estimation. Also their performance in various terrain settings will be scrutinized. What are the limitation of lidars as turbulence instruments and can to which degree can they estimate momentum fluxes? We will also discuss results from measurements with lidars of wakes behind wind turbines.