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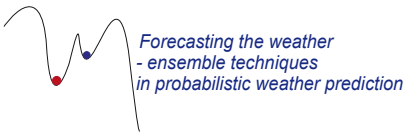

What is the wind speed accuracy of SODARs?

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Remote sensing of wind and turbulence aloft by ground-based sensors, including SODARs, is now ubiquitous, but these technologies are still rapidly changing. Reports comparing SODARs with mast sensors often quote the correlation R2. What does this mean in terms of uncertainty about a remotely sensed wind speed? To answer this, we bring together the statistical analysis of the fluctuations due to turbulence, and results from field measurements. The finding is that R2 is not a property of the instrument, but is rather a property of the intercomparison experiment design. This is rather sobering, and needs to be considered when evaluating the quality of remotely sensed measurements.