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Interactive comment

Interactive comment on "Using wind speed from a blade-mounted flow sensor for power and load assessment on modern wind turbines" by Mads M. Pedersen et al.

Anonymous Referee #1

Received and published: 21 July 2017

This paper discusses the use of flow sensors on the blades as a means for determining the power curve and loads on the blade. Rigorous mathematical discussion is shown on how to remove interactions within these measurements to achieve a "clean" measurement. The advantage of this approach is shown to be the closeness of the measurement to the turbine, which enables less variability for similar conditions. Thus, the power curve can be extracted at a much quicker rate.

My only major comment on the paper is that I did not see any discussion on the accuracy of the power curve and loads extracted using this approach - only the variability was focused on. And, to get an accurate power curve, you will need to adapt the mea-

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Discussion paper



surements based on the interactions of the turbine. Will there need to be a turbine-specific adaptation of the measurements to extract a meaningful power curve? Thus necessitating a rigorous analysis of the process for each application?

The paper is well written and understandable, but there are still numerous grammatical errors - too many to correct in this context. A thorough edit of the paper is needed. "Brake" should be "break". Also, not all variables used in the equations are identified.

Interactive comment on Wind Energ. Sci. Discuss., https://doi.org/10.5194/wes-2017-25, 2017.

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