

Interactive comment on “Wind Field Reconstruction from Nacelle-Mounted Lidars Short Range Measurements” by Antoine Borraccino et al.

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I found this paper to be very well written and both a comprehensive review of the subject and a significant result given the quality of the agreements between the measured and modelled Wind Field Characteristics. It gives me hope that techniques can be developed to allow a meaningful performance test for wind turbines in complex terrain and for the next generation offshore turbines. Well done to all.

I have a few minor comments that are listed below which the author may consider reviewing:

Page 1 line 2: I don't like the structure of the second sentence. It makes it seem like

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the industry has been battling with this issue for many years whereas in reality profiling nacelle LiDARs are relatively new.

Page 2 Line 1: Could a source be added for the 0.7% figure? In my experience 1% is what is assumed in the industry (and the IEC) so I would be interested to see where the 0.7% comes from. Later in the paper the figure 0.5% is used which I understand comes from the results presented in the paper? This figure is important to AEP calculations so it should be as clear as possible where the numbers are coming from

Page 2 Line 31: I don't agree that the vertical shear profiles are arbitrary (definition: "based on random choice or personal whim, rather than any reason or system")

Page 9 Line 18: The sentence describing the site is poorly worded. Remove the word "the" before terrain flatness?

Page 11 Line 3: Replace We with the authors or an algorithm was developed

Page 15 Line 12 -14: I don't understand why the 10m range was discarded and the link to self-similarity. This seems like it is contradicting the discussion on self-similarity earlier in the paper? Please consider rewording this section

Page 16 line 6: Could the relative lack of agreement also be caused by mast effects on the side boom mounted anemometer?

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