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Interactive comment on "Lidar measurements of yawed wind turbine wakes: characterisation and validation of analytical models" *by* Peter Brugger et al.

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This paper presents an interesting study on the characterisation and validation of analytical yawed wake models. The writing is of high quality, the figures are nice and in general the paper is very informative. However, in some aspects the paper could be a bit more 'to the point'. I will illustrate that with further comments. I suggest a minor revision.

General comments:

- The conclusions mainly address the errors in the power prediction for different

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experimental and analytical methods/models. Even the lowest value of 12% is higher than the expected power improvements reached by wake steering (Sect. 3.3.3). Maybe this could be elaborated a bit more in a broader scope, addressing how these findings contribute to the research field that attempts to increase power production of turbines in an array or wind farm and what are your recommendations on how and with which methods to proceed.

- On the other hand the length of the paper could be reduced a little. I like the fact that the paper is very informative, but sometimes it provides information not directly necessary for the take-away message. One example is Sect. 3.4 on the shape of the wake. Please consider whether it is a vital concern or whether it could be omitted.

- You state that 'studies of yawed wind turbines using field data are rare'. Although this may be true, I recommend you to look into and perhaps cite the work of Bromm (2018), DOI: 10.1002/we.2210 in addition to the other references.

Specific comments:

- P2, L50: What kind of WindCube was used? There are various short-range and long-range WindCube models.

- P11, Fig. 5 and Fig. 6: It would be very good for the overview to see the goodness of fit (correlation) coefficient displayed within the correlations plots.

- P14, Fig. 8: Does the wake center detection function as it should? It seems to jump between the wakes of T2, T3 and T4. Wouldn't it make more sense to try to follow the far wake of T2 instead? Maybe this could be adjusted.

- P17, Fig. 10 and Fig. 11: Again it would be nice to see the correlation coefficient displayed within the figures.

Technical corrections:

- P2, L52: Replace 'thrid' by 'third'.

- P3, L59: Replace 'nacelle' by 'the nacelle'.

- P5, L82: Add 'direction' at the end of the sentence.

- P6, L106: Replace 'StreamLine' with 'Stream Line'.

- P9, L191: Rewrite 'data of either the WindIris or the WindCube was missing'.

- P9, L204: Remove 'the' in front of '07 February 2019'.

- P10, L212: Remove 'the' in front of '11 February 2019'.

- P12, L235: Add 'a' in front of 'mean value'.

- P14, L264: Add 'a' in front of 'correlation coefficient'.

- P16, L268: Replace 'reasons' with 'reason'.

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