Wind Energ. Sci. Discuss., https://doi.org/10.5194/wes-2017-2-RC2, 2017 © Author(s) 2017. This work is distributed under the Creative Commons Attribution 3.0 License.



## Interactive comment on "Trailed vorticity modeling for aeroelastic wind turbine simulations in stand still" by Georg R. Pirrung et al.

## X. Munduate (Referee)

xmunduate@cener.com

Received and published: 3 July 2017

The paper addresses a relevant scientific question such the induction of a parked blade within the BEM formulation. In general, the objectives and method are clearly presented. The results are sufficient to support the interpretations and associated discussion. It is only missing to my opinion, that the implementation of the method is valid but a more clear outlined will be appreciated, especially how the trailed vorticity is incorporated into the unsteady calculation of the shed vorticity.

Specifically, the article will improve if the following questions could be addressed:

- Page 3, in Lines 13-18 could you please explain how different is the inflow angle from the angle of attack? It is the trailed induction take it into account to calculate the

C1

far wake?. Does the trailed induction take into account to calculate the 2D unsteady attached and dynamic stall flow?. Basically, could you explain here or in section 4 Unsteady airfoil aerodynamics model how is the interaction of the trailed vorticity model and the unsteady model, if any?

- Page 8, line 5. Which do you think is the reason to have worse agreement towards the stalled tip? The same in Page 18, lines 20-23.
- Missing an extended "Further work" section with some of the new tasks that the authors have foreseen.

Other than that the work results in a good contribution to the scientific progress of the parked and idling issue.

Interactive comment on Wind Energ. Sci. Discuss., https://doi.org/10.5194/wes-2017-2, 2017.