

## ***Interactive comment on “Wind tunnel experiments on wind turbine wakes in yaw: Redefining the wake width” by Jannik Schottler et al.***

### **Anonymous Referee #2**

Received and published: 11 February 2018

The paper features a very interesting investigation, useful to the community. Well written and therefore nice to read.

Although the title clearly mentions the paper deals with a wind tunnel test, it would be good to exercise some caution in the text on the application of the results to the 'real world'.

-The reported high thrust coefficients corresponds to rather high axial induction factors towards the turbulent wake state, in how far is this representative for real life turbines nowadays and how would this affect the observed wake shapes? Has there been any attempt to clarify the effect of operational conditions on observations (partial load. full load)

[Printer-friendly version](#)

[Discussion paper](#)



-Blockage. Referred paper on tunnel effects refers to blockage correction (to correct freestream velocity and modify power and loads). Does the same conclusion hold for measured wake velocities or are they more sensitive to tunnel effects? Is there an influence of the asymmetry of the test section on the measured wake shape at 6D in yaw?

-2.1 pp3 Please state the cause/reason for the different TI. How was the homogeneity verified, do I understand correctly that standard deviation of flow velocity was the same in all three directions??

-2.2 pp4 motivate choice for  $x/D=6$

-5 pp15, does blockage also depend on  $C_t$ ?

-5 pp15 It is stated that another paper "Bartl, J., Mühle, F., Schottler, J., Sætran, L., Peinke, J., Adaramola, M., and Hölling, M.: Experiments on wind turbine wakes in yaw: Effects of inflow turbulence and shear, Wind Energy Science, submitted, 2017." discusses the effect of inflow TI. " Since the differences between the measurements on the 2 turbines are discussed in the conclusions, what would be the effect of the different inflow TI for the 2 campaigns on the measured differences?

---

Interactive comment on Wind Energ. Sci. Discuss., <https://doi.org/10.5194/wes-2017-58>, 2018.

Printer-friendly version

Discussion paper

