

## ***Interactive comment on “Determination of the Angle of Attack on a Research Wind Turbine Rotor Blade Using Surface Pressure Measurements” by Rodrigo Soto-Valle et al.***

### **Anonymous Referee #2**

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General comments: Interesting paper that shows the potential for an AoA estimation from a measured surface pressure in a few chord wise locations.

The paper presents some interesting measurements on a scaled rotor and it would be obvious to try the method on a full-scale rotor.

Overall, the method and results are presented clearly and thoroughly. However, before the paper can be published the wording of some of the paragraphs should be rephrased, as it is sometimes difficult to understand the argumentations.

Specific comments:

C1

Line No Comment

139 Is there a reason for this very high logging frequency?

148 Check how the references are referenced

187 Can this fit be shown and has the fit been checked with measurements from the blade at standstill? If this is possible?

200 Can you elaborate a little more on this? Why is it neglected and what (if any) consequences does it have?

227 It would be good with a comment on how good the fit is or perhaps a figure that shows the fit.

231 Why did you choose this position and not one where there were pressure taps, so you can avoid the interpolation?

247 Change "Equation 7 it can..." to "Equation 7 can..."

Table 1 What is "FSR"?

274 Rephrase the sentence, especially the part with "...to after drops..."

297 Rephrase the sentence. It is an important observation, but difficult to understand as it is written here.

303 & List of symbols Missing expression for the tip speed ratio.

Figure 12 Legend is different from Figures 13, 14 and 15.

Figure 12 Perhaps repeat that  $\text{AoA}_{\text{geo}} = 5.1 \text{ deg}$  from Line 249.

321 Can the uncertainties be added on the figure?

322-23 Rephrase

324-26 Can the effect of the walls be quantified, e.g. by the method from H. Glauert

C2

The elements of aerofoil and airscrew theory?

324-26 Rephrase

330-31 Rephrase

353-56 The paragraph is unclear, please rephrase

363 Is there an explanation on the difference in slope? Why is the measurements not showing a slope of -1?

364-66 Rephrase

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