

List of changes for

Global sensitivity analysis of model uncertainty in aeroelastic wind turbine models

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Reviewer 1

Asks for explanation of the effects observed, e.g. sensitivity towards chord and not towards twist.

Yes, this is a good observation from the reviewer. The observed effects are due to the choice of uncertainty in the input distribution. We have added several sentences in the revised manuscript in the results section to further explain this.

Reviewer 2

Very nice paper.

Thank you for your compliments.

Reviewer 3

Note: we received the reviews of reviewer 3 only on May 25, only noting it in the beginning of June when we wanted to submit the revision (the e-mail stating that 'optional changes' were required was already sent on May 13). We still have tried to include as much of possible Reviewer's 3 remarks, but decided not to change the structure of the text as was suggested.

- The reviewer suggests some further works to include in the introduction.
Thank you for the suggestion. After carefully studying the suggested papers, we decided to include the work of Petrone et al. in the reference list. The work of Padron et al. is a bit more off-topic, as it studies the effects of extreme gusts on the force response of a vertical axis turbine with the focus on showing a multi-fidelity approach.
- The reviewer suggests to shorten the methodology section, and move it to an appendix.
We have shortened the discussion on Sobol analysis and PCE, but did not move this section to an appendix, for reasons described above. We have added an additional sentence in the introduction of section 4 to explain why we devote so much attention to explaining the methodology.
- OLS vs. LARS
LARS converges faster because it is an adaptive method, as is described in the text. We want to keep the OLS results because they provide a consistency check for the LARS results.
- Further interpretation of results
This is in line with the remarks of reviewer 1. We have added several lines in the text in the results section to explain the sensitivities found.
- Investigate second blade / turbine
This is a very good suggestion, but is outside the scope of the revision for reasons explained above.