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Overall

- Well-written but lacking depth and critical analysis – substantial work is needed to beef up the results section

Introduction:

- A few other interesting works in this space:
 - o <https://doi.org/10.2514/6.2014-3013>
 - o https://www.researchgate.net/publication/267547837_Wind_Turbine_Performance_Analysis_Under_Uncertainty
- The latter paper in particular I believe focused on soiling of the blade (if not that paper then a related one) which was realized as uncertainty around the airfoil polars similar to the current work – so it may be worth citing

Global sensitivity analysis

- The explanation of the Sobol indices is too detailed. I would expect a simple explanation and reference to a standard text would be enough. The authors are not introducing a special new variation of sobol decomposition so reporting the formulation for the analysis is filler that should be used instead to focus on the unique contributions of this effort
 - o If not completely removed it should be an appendix
- One paper using sobol analysis for sensitivity to model parameters in wind applications can be found here:
 - o <https://www.nrel.gov/docs/fy14osti/60920.pdf>
- The same applies for PCE, OLS and LARS – unless you are using a unique formulation of these algorithms, then you can reference a standard text that explains the methods; these are okay though as they are not as extensive as the Sobol section

Results

- The OLS and LARS comparison feels incomplete – why did LARS converge faster? One could almost leave out the OLS altogether and focus on the real work which is the sensitivity analysis results
- There is almost no critical analysis and interpretation of the results. Way too much effort is spent explaining the use of standard methods without really performing in depth analysis and discussion of results. This section needs major improvement and there is a lot of room to expand if the methods section is reduced accordingly
- The work would also benefit greatly from performing analysis on a second blade in order to provide some comparative analysis. For this, a reference turbine such as the DTU 10 MW, NREL 5 MW or any of the IEA Wind reference turbine series could be used (especially since the point is method demonstration)