

Dear Editor,

We would like first to thank the Reviewers for the accurate and qualified observations. We truly appreciated the constructive criticism that made major improvements to the paper possible.

Based on their comments, an extensive revision of the work has been carried out. Our point-to-point responses have been highlighted in [blue-colored text](#) both in this communication and in the revised version of the paper. We really hope that this revised version can be now worthy of publication in *Wind Energy Science*.

Best regards,

Alessandro Bianchini on behalf of all the authors

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Reviewer #3

The topic of floating WT's is an important topic, and the availability of experimental wind turbine data under simulated floating offshore platform movement is indispensable. The comparison with several numerical simulation methods gives a good impression how this experimental data can be used for code validation.

[The authors would like to thank the Reviewer for his/her appreciation of the study and for the constructive criticism.](#)

RC: The article in its current form contains many textual errors (in text, captions, references).

[AC: Thank you for your comment. We have carried out an extensive review of the manuscript to correct any typographical errors we could identify.](#)

RC: The figures would benefit from using a uniform layout and color scheme.

[AC: We agree with the Reviewer that the visualization of some figures could be improved by maintaining a uniform style across the manuscript. We have modified the figures in the paper accordingly.](#)

RC: This reviewer struggled to identify the goal of the article: was it to demonstrate the usefulness of the experimental data or was it to validate the several numerical implementations? (I guess it's the former) This uncertainty is also present in the title of the article that is formulated as a question, that can be answered with "It depends...".

[AC: Thank you for this criticism, which helped us re-thinking the way to present our study. The main objective of the paper was to compare the different numerical methods with the experimental data and to evaluate their capabilities and limitations, so as to provide the reader an overview of what he/she can expect when making use of such methods in simulating FOWTs. We have modified the manuscript, especially in the introduction and conclusions, to clarify the objective of this work and to further highlight the comparison between numerical models and experimental data.](#)

RC: The results of the simulations were from specific implementations of specific flow modelling choices, using specific runtime settings. The discussion of the results should make clearer that the conclusions are valid for these specific computer programs using specific settings and cannot be generalized to, for example, "the FVW and ALM methods ...".

[AC: We agree with the Reviewer that the results reported here are valid only for the specific simulation employed and that different codes or simulation strategies may perform differently in comparison to the experiments. For the ALM models, we have tried to provide a more general outlook by comparing two different implementations and numerical setups, which have not undergone preliminary tuning or comparison, even though this remains a limited sample of all possible implementations and setup choices. We have now tried to better highlight this limitation of the study in the Conclusions, clarifying that the outcomes are limited to the specific implementations tested and further work is required to achieve a more general validation of the numerical models.](#)