

Wind Energ. Sci. Discuss., referee comment RC1
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Comment on wes-2021-46

Anonymous Referee #1

Referee comment on "A symbolic framework for flexible multibody systems applied to horizontal axis wind turbines" by Emmanuel Branlard and Jens Geisler, Wind Energ. Sci. Discuss., <https://doi.org/10.5194/wes-2021-46-RC1>, 2021

After reviewing carefully, the paper titled "A symbolic framework for flexible multibody system applied to horizontal axis wind turbines", I have arrived to the following conclusion:

Without underestimating the programming effort and authors' particular motivation, I strongly think that the proposed work does not contribute in any form to the current state of the art in flexible multibody dynamics applied to horizontal axis wind turbines. The methods proposed are not new. Moreover, the assumption made on the elastic deformation of the flexible bodies is quite limited and thus, it requires amendments such as the inclusion of softening/stiffening terms. There are some formulations available in the literature, for instance the geometrically exact beam developed during the eighties and nineties, that can be already implemented in "pseudo" real time and are by far superior to the approach proposed by the authors. Therefore, based on my assessment I regrettably cannot recommend the paper for publication, even after major changes.