

## ***Interactive comment on “A Method for Preliminary Rotor Design – Part 2: Wind Turbine Rotor Optimization with Radial Independence” by Kenneth Loenbaek et al.***

**Kenneth Loenbaek et al.**

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Dear Referee,

Thank you for reviewing our manuscript and reading it carefully.

*on page 7 you do have and eq. XX that needs attention*

The correct equation has been added (eq. 26).

*a max chord would be desirable*

Applying a max chord is relatively easy to implement as there is a direct relationship between CLT and chord once CI is given. Limiting the chord is therefore a matter of

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finding the maximum CLT for a given radius and then limit it there. It was omitted here to avoid the manuscript of becoming unnecessarily complicated. A comment has been added for the first part of the "Result and discussion" (section 3) which briefly discuss the possibility of adding more or other constraints.

*I would hope that some additional discussion on why one should use this model as compared with current design methods would be included.*

A comment has been added in the first part of "Result and discussion" (section 3) where the advantages of using the methodology is mentioned. The main advantages is the speed at which the methodology can obtain results, which makes it possible to search large part of the wind turbine rotor design space - which would be computationally expensive with most aeroelastic solvers.

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Interactive comment on Wind Energ. Sci. Discuss., <https://doi.org/10.5194/wes-2020-99>, 2020.

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