Interactive comment on "Modal Properties and Stability of Bend-Twist Coupled Wind Turbine Blades" *by* Alexander R. Stäblein et al.

Alexander R. Stäblein et al.

alexander@staeblein.com

Received and published: 12 April 2017

Dear reviewer,

Thank you for your comments and constructive feedback. Please find our responses below:

1.) Section 2.5.4: The parameter γy is introduced in section 3, but is utilized here already. Please introduce symbols where first used.

- We will consider this in the revision of the paper.

2.) Table 3: It would be nice not only to see the difference in numbers, but to know about the principle differences in beam element formulation without reviewing the entire references. Some basic remarks will be welcome.

- We will add the following section: Hodges et al. (1991) uses finite beam elements based on a mixed variational formulation with cross-sectional properties obtained by a virtual work method by Giavotto et al. (1983). The formulation by Armanios and Badir (1995) is based on a variational asymptotic method and Hamilton's principle.

3.) In order to save space, the authors should place figures 3 and 4 side by side, as well as figures 5 and 6.

- We will consider this in the revision of the paper.

4.) The authors should make sure that the figures are included in the text close to where referenced. Sometimes, the reader has to turn several pages, which is no fun at

- We will move them closer to the text.

5.) Figures 5 and 6, and partly Figures 12-14: The slope change at the tip looks erroneous (as it was hinged). Could the authors explain the reason?

- The slope change is probably related to the double curvature of the blade at the tip. We can observe the same behaviour using another code (HAWC2). We are currently investigating this and will address the issue in the revision of the article.