Interactive comment on "First Identification and Quantification of Detached Tip VorticesBehind a WEC Using Fixed Wing UAS" *by* Moritz Mauz et al.

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Those values for the error of the circulation strength are based on the assumption that U_∞ is the faulty variable. But that is not the case. The faulty variable is the circulation Γ. So there is an error in the evaluation of the peak velocity of the tip vortex (1 and 2) but not in the calculation of the 'free stream velocity' (horizontal wind outside the wake).

Additionally one has to look at the TAS (true air speed) at the time of measuring the tip vortex. For the tip vortex 1 the TAS is calculated to 17.2 m/s, that is 0.8 m/s off the calibration velocity. So this vortex evaluation should be fine. Hence the TAS at the tip vortex 2 (leaving the wake again) is calculated to 14.2 m/s which is about 3 m/s off. So

there is a distinct, small error in the calculation of the peak velocity there. This error is introduces due to the wind velocity drop in the wake deficit. This error in tip vortex 2 affects the determination or r_c and L. And later the circulation calculation.

To sum it up. There is an influence of the calibration (TAS drop) but it is nowhere near these $30\ m^2/s$.