

Review of: "A Simplified Model for Propeller Thrust in Oblique Flow"

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Potential competing interests: No potential competing interests to declare.

Revisions essential prior to publication.

1. Abstract: tilt-able motor and propellers → would rephrase to tilt rotors and propellers
2. Abstract: 5% calculated based on an error defined as: $(T_{exp}-T)/T_{max}$. What is the value if you don't normalise it with T_{max} (max thrust) and instead you use $(T_{exp}-T)/T$?
3. Introduction (page 3): "loss of thrust due to forward speed". What about other sources of losses such as compressibility losses, tip losses, nonuniform inflow, wake swirl, etc.? It is recommended to state those.
4. Generation of thrust in pure crossflow (III) (page 6): by ~~the~~by the (delete)
5. Figure 4: It is recommended to add a reference in the caption of Fig 4 and change the color/marker shape in crossflow as it is not visible.
6. Model validation (V) (page 8): It is recommended to add a comparison for $v=9\text{m/s}$ as well as $v=6\text{m/s}$ (Fig. 7).
7. Model validation (V): How does the method presented in this paper compare for advance ratios of $0 < J \leq 0.1$, where the influence of tip vortices downstream of the rotor is much greater?
8. Conclusion (VI): state model error for high oblique angles.

In addition to the above:

- The limitation of the method presented here is that it requires first the generation of experimental data for pure axial flight and is highly dependent on the propeller type and dimensions, which should be highlighted.
- Method scalability: State the propeller designs that were used for the validation cases used in this paper. Is the method scalable? The authors don't provide any details about the type of propellers/dimensions. Could it be used for larger propeller designs? Limitations associated with that should be stated.