

Major Concerns

1. Abstract: p1, line 19 – 21
2. See manuscript
3. See manuscript
4. Transition from laminar to turbulent flow
5. If one applies Buckingham's Π -theorem, it can be deduced that the Reynolds number is the critical characteristic number for this problem. As now stated in the paper more clearly the final goal of generating the polar tables is the design of a wind turbine blade including further improvements again based on the polar tables. The rotor to be designed will have a radius of 20m. Choosing a typical rotational speed (such that the tip speed will be around 80 m/s), a preliminary design including the chord length distribution along the radius can be approximated. From this an approximate Reynolds number distribution along the radius can be approximated. This Reynolds number will be in the order of $1 \cdot 10^6$. For a pure aerodynamic analysis the freestream velocity can be chosen almost arbitrarily. For technical reasons (small velocities in a compressible solver will result in a stiff system of equations) a very small inflow velocity is not recommendable. Also choosing the tip velocity (or even above) as the inflow velocity is not recommendable since Mach number effects will start to become relevant. Therefore the intermediate velocity of 40 m/s has been chosen as a representative inflow speed. Inflow speeds of 30 m/s or 50 m/s would give the same results.
6. The main reason for choosing this turbulent intensity is not the atmospheric turbulence but the comparison with the experimental data.
7. A further sentence was added for improvement
8. A further comment was added to stress that only relatively thin airfoils suit for the outer 20% of the rotor

Minor Concerns

36. Labels changed, but no values for the vertical axis added. The relative measure must do.
50. Ditto
53. Ditto