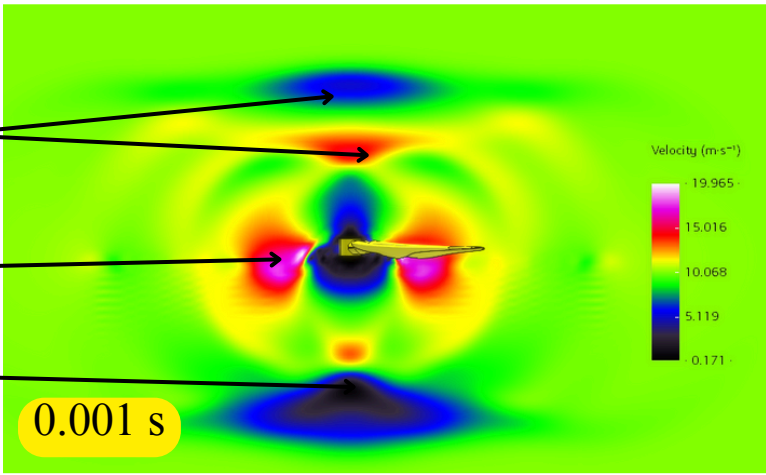


Toroidal Propeller - 10° - 10 m/s

Symmetrical flow pattern

High-velocity region

Downwash effects

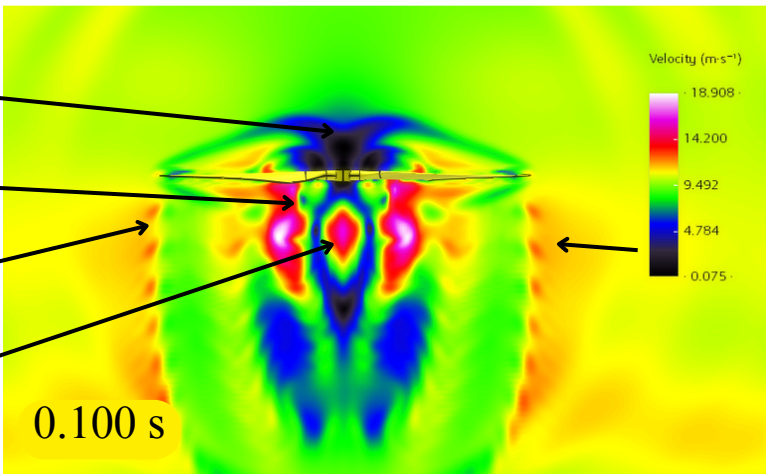


Stable airflow

Development of foppl vortices

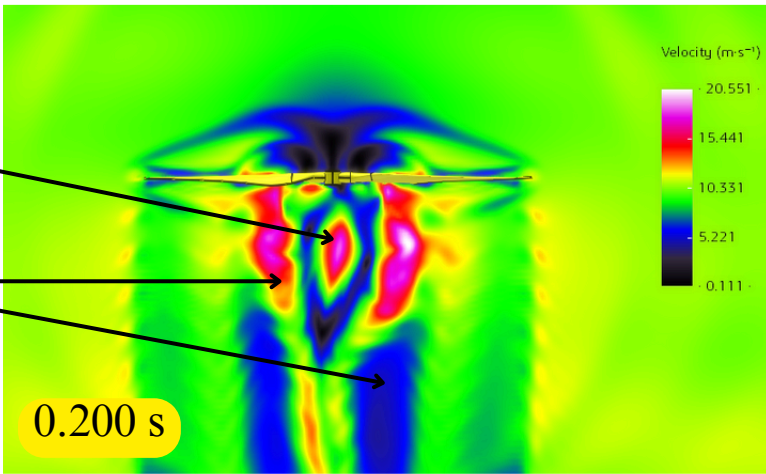
Increased velocity near blade edges

Vortex Formation



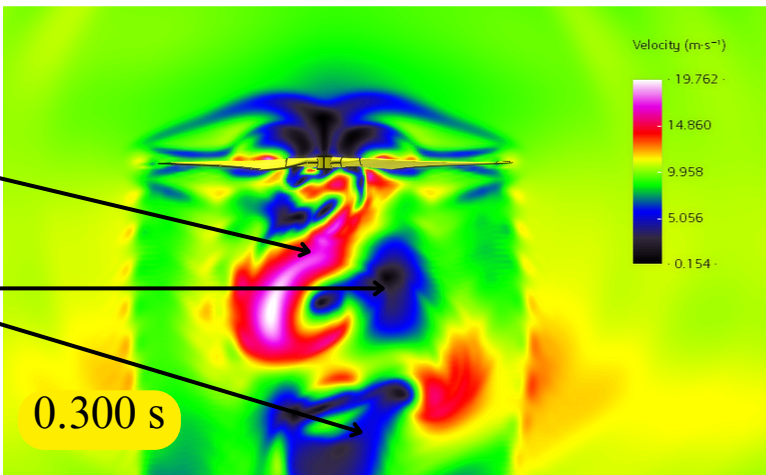
Well-defined vortex structures

Minimal turbulence



Vortex instability increasing (shedding)

Turbulence development starts and flow separation



Shear layer formation

Unstable vortex breakdown

