A hydrodynamic toy model for fish locomotion

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[https://physics.aps.org/articles/v11/46]

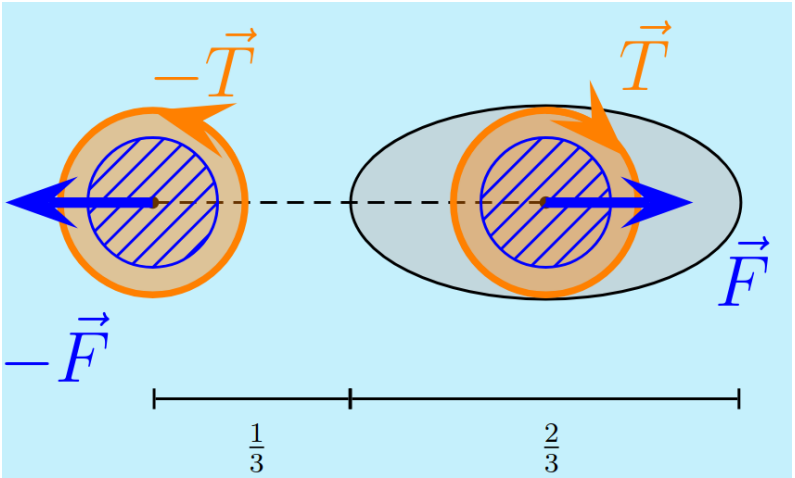
Motivations:

There are 2 approaches:

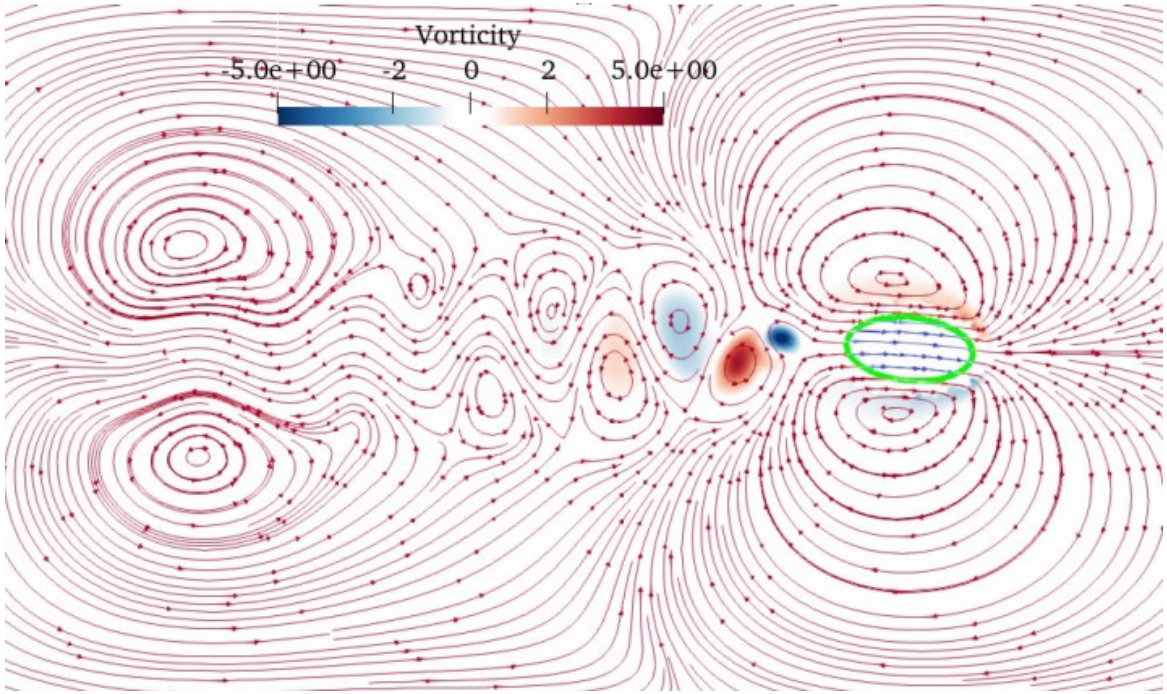
- a social approach without hydrodynamic

- full hydrodynamic description but with a very limited number of fish

Is it possible to build a toy model to mix the two approaches?



$$\vec{T} = \vec{T}_0 \cos \omega t$$
$$\vec{F} = \vec{F}_0 |\cos \omega t|$$



Results:

- Reverse von Karman vortex wake
- Control the trajectory
- Hydrodynamic scaling