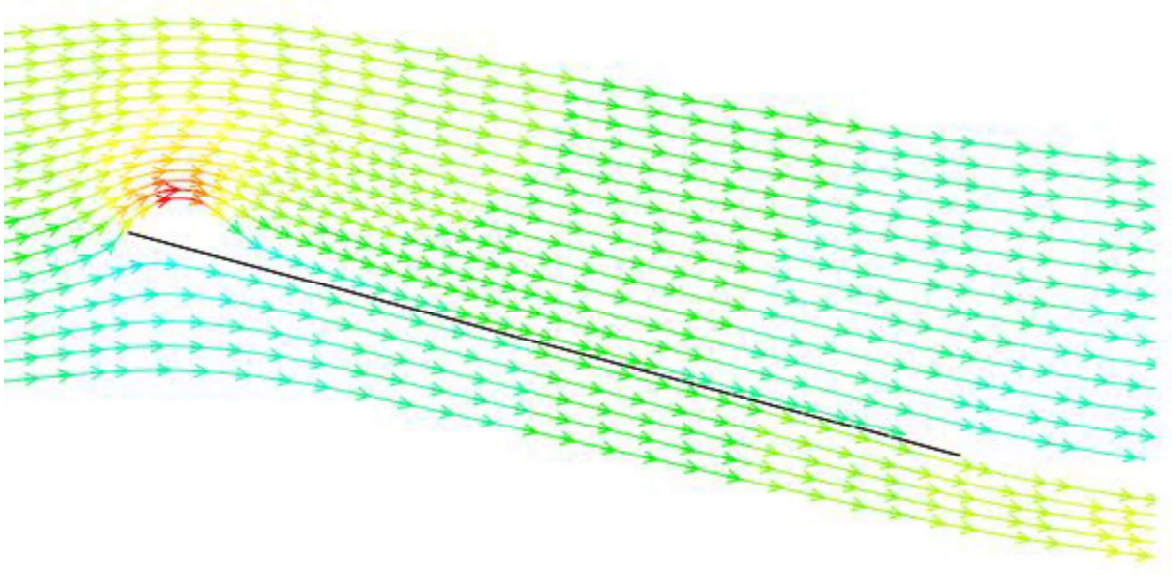


Proposal 6 for a Master-Thesis:

Trailing-Edge Stall: A Comparison of CFD with Triple-Deck-Theory (TDT)



A (cambered) flat plate may be regarded as the simplest realization of a lifting device. During this thesis prediction (esp. those for the pressure around the trailing edge) of TDT should be compared with a carefully prepared CFD 2D setup [2] for laminar flow ( $Re < 100k$ ). OpenFOAM is recommended as the code of choice.

**References:**

- [1] S.N. Brown and K. Stewartson, Trailing-Edge Stall, JFM, **42/3** pp 561 – 584 (1970)
- [2] T. Cebeci and J. Cousteix, Modeling and Computation of Boundary-Layer Flows, Springer (1999) pp 440 ff