

Fundamentals of Computational Fluid Dynamics

MEGN698A

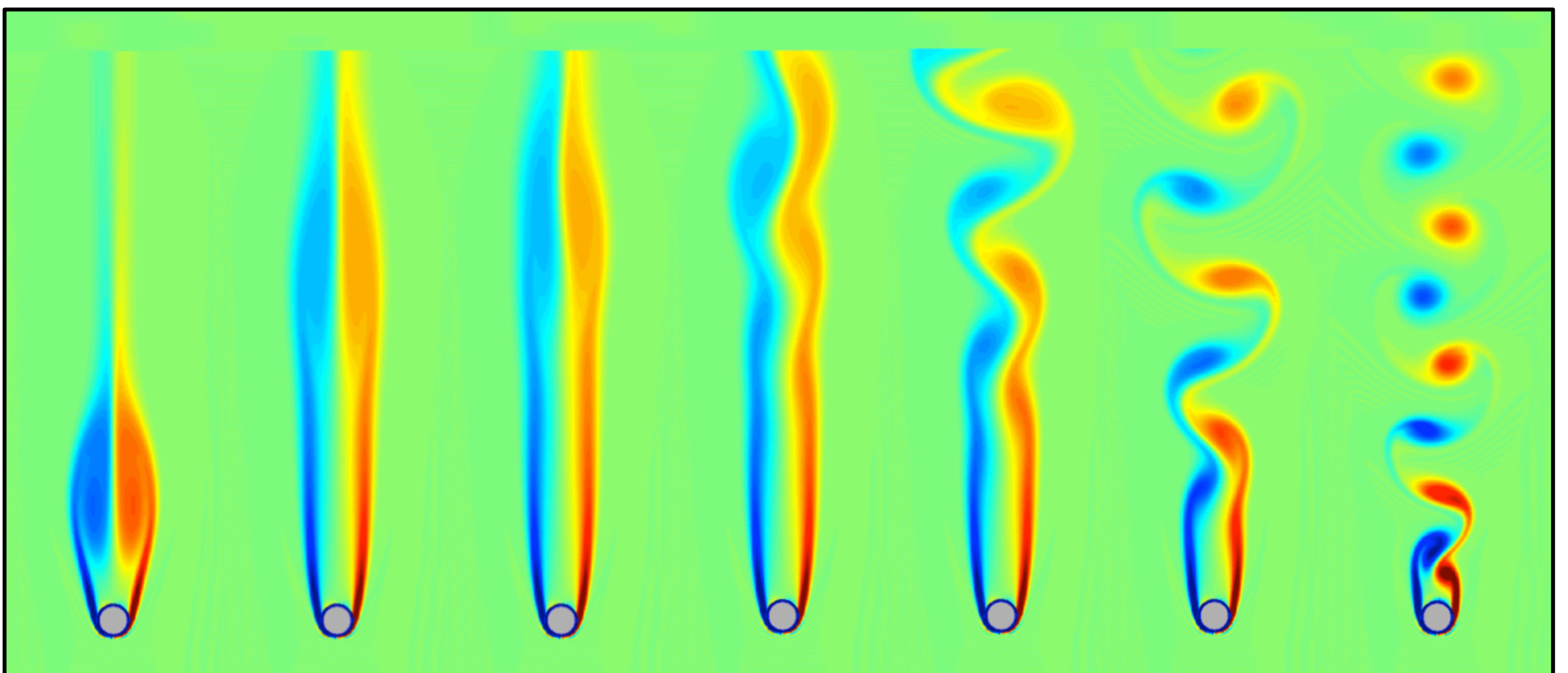
Spring 2018

Instructor: Dr. Nils Tilton

Description: Learn the fundamentals of computational fluid dynamics while building your own Matlab codes for the simulation of unsteady incompressible fluid flows.

Topics:

- Finite-volume and finite-difference methods
- Projection methods for unsteady flows
- Immersed boundary methods for complex geometries
- Coupled heat and mass transport
- Boundary layers and flow instabilities



Immersed boundary simulation of the Von Karman vortex street