

# Student Thesis Projects (Master Thesis / Studienarbeit)

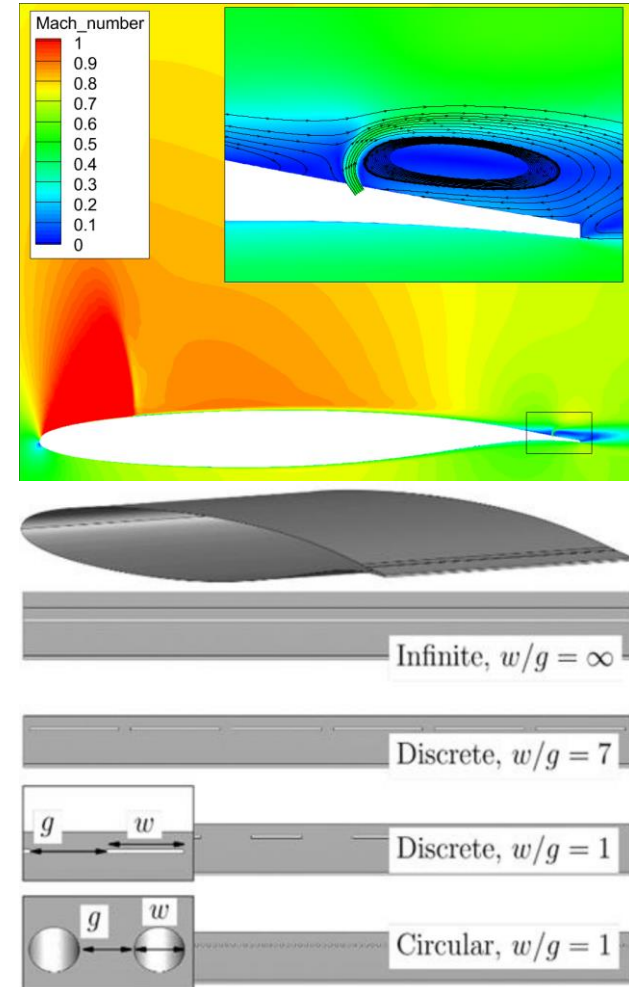
**Goal:** Numerical investigation and improvement of a fluidic actuator system for control of lift and pitching moment

## Tasks:

- Literature survey on aircraft aerodynamics, active flow control for load alleviation, and numerical simulations
- (Automatic) mesh generation for different (parameterized) actuator geometries
- Setup and execution of CFD simulations of the actuator system integrated on a 2D airfoil / 2.5D wing section
- Evaluation of the actuator geometries regarding control authority and mass flow demand

## Requirements:

- Good knowledge in aircraft aerodynamics
- Interest in practical application of numerical methods. Experience with CFD is beneficial.



Credits: Khalid Khalil, TU Braunschweig, 2023