## **FLUENT - Flow over an Airfoil- Problem Specification**

Author: Rajesh Bhaskaran, Cornell University **Problem Specification** 1. Create Geometry in GAMBIT 2. Mesh Geometry in GAMBIT 3. Specify Boundary Types in GAMBIT 4. Set Up Problem in FLUENT 5. Solve! 6. Analyze Results

- 7. Refine Mesh
- Problem 1
- Problem 2

## Problem Specification



Consider air flowing over NACA 4412 airfoil. The freestream velocity is 50 m/s and the angle of attack is 2°. Assume standard sea-level values for the freestream properties: Pressure = 101,325 Pa Density = 1.2250 kg/m3 Temperature = 288.16 K Kinematic viscosity v = 1.4607e-5 m2/s We will determine the lift and drag coefficients under these conditions using FLUENT.

Go to Step 1: Create Geometry in GAMBIT

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