

CFD PreLab 2 Questions (Airfoil Flow)

57:020 Mechanics of Fluids and Transfer Processes

By Tao Xing and Fred Stern

1. Is the “CFD Process” same as that you used in CFD Lab1? List all the steps in “CFD Process”.
2. For each step of “CFD Process”, describe what options are available and which options you will use in CFD PreLab 2 and CFD Lab 2(hint: flowcharts)?
3. What is the geometry? How many parameters do you need to create that geometry?
4. How many domain shapes are available in FlowLab and which shape you will use in CFD PreLab 2 and CFD Lab 2? How many parameters you need specify to create the “O” domain?
5. How many kinds of boundary conditions you will use for CFD PreLab 2 and CFD Lab 2? List them with values.
6. What are the initial conditions for CFD PreLab2 and CFD Lab2?
7. What are the iteration numbers and convergence limits you will use for CFD PreLab 2 and CFD Lab 2?