

Homework 9

- (1) Obtain, the laminar boundary layer code from me. Convert the code to solve for turbulent boundary layers using the k/ϵ model.
- (2) Plot the mean velocity profile at three very different Reynolds numbers on a log/linear plot. Use plus-coordinates and compare with experimental data and the log law. (See page 516 of the text).
- (3) Plot the kinetic energy in plus-coordinates. Also plot it in outer variables (scale with U_∞, δ_{99}). Is there any collapse of the data for different Re numbers in either of these scalings?