

I. P. Castro & C. Vanderwel, *Turbulent Flows: An Introduction*, IOP, 2021.

## Chapter 3 Sample Exercises

- 3.1 Estimate the range of scales involved in the flow in the boundary layer over an airplane wing, assuming an appropriate Reynolds number and that the largest scales are of the order of the boundary layer thickness.
- 3.2 Identify the units of the variables in equations (3.12) and (3.14), to prove that  $\Psi(\kappa\eta)$  and  $\psi(\kappa\eta)$  are non-dimensional.