Hydrodynamics
Homework 2: Air properties
17. October 2024

Exercise:
Consider the situation with two air layers from tutorials from Exercise 2 (layer with thickness $z_1 = 10$ m and temperature $T_1 = 40$°C followed by layer with thickness $z_1 = 40$ m and temperature $T_1 = 20$°C). If the pressure near the ground is 1000 hPa (by the mouse), what is the pressure at the top (by the eagle)?

- First, do the computation using Laplace formula with the average temperature $\bar{T} = 24$°C.
- Second, use the Laplace formula for each of the layer separately, with the precise temperatures. Is there a large difference?