

大氣熱力學

CA4

謝旻耕 (d08229002@ntu.edu.tw)

高富聖 (r11229010@ntu.edu.tw)

黃子強 (b08209014@ntu.edu.tw)

Class Activity 4

- Given the sounding, please plot the vertical profiles of dry static energy, discuss the vertical structure, and compare it to the potential temperature.
- Consider an infinitesimally small dry surface parcel which has same temperature as the environment, what is the temperature, potential temperature, and dry static temperature difference between this parcel and the environment if it is moved adiabatically to the tropopause?
- Following (2), a line-shaped dry parcel with 1 km thickness is hydrostatic balanced near surface, what is the temperature, potential temperature, and dry static temperature difference between this parcel and the environment if it is moved adiabatically and hit to the tropopause. (Assume that the parcel is still 1 km thick)