

Convective clustering in idealized models

Thursday 28 May 2020 16:45 (1h 45m)

Updraft entrainment and surface flux feedbacks have been shown to be potentially important to clustering in cloud resolving simulations of deep convection in a state of radiative-convective equilibrium. Using the work of Emanuel et al. (2014) and Craig and Mack(2013) as inspiration, we present the results of idealized models of deep convection, investigating the instability that can lead to spontaneous organisation of deep convection. We add processes of entrainment into convective updrafts and surface wind feedback to analyse the impact on the stability of a simple two layer system and also a multi-column diffusion model.

Authors: GIOVANNI, Biagioli (University of Trieste); Dr ADRIAN MARK, Tompkins (ICTP)

Presenter: GIOVANNI, Biagioli (University of Trieste)

Session Classification: Poster Session + Refreshments