

The spacing and thermodynamics of updraughts in organised shallow cumulus

Monday 16 May 2022 12:12 (2 minutes)

We consider the clouds that form in Lagrangian high-resolution and single-column model simulations based on different days of the EUREC4A/ATOMIC field campaign. These simulations are driven using ERA5 reanalysis, and contain examples of flower type and gravel type organisation. In particular, we consider the spacing and thermodynamic properties of updraughts and detrained air during different regimes of convective organisation, at different stages during the life cycle of the cloud. We also test the sensitivity of these properties to the LES forcings.

Authors: DENBY, Leif (University of Leeds); BOEING, Steven (University of Leeds); BLOSSEY, Peter (University of Washington, Seattle); NEGGERS, Roel (University of Cologne); GHAZAYEL, Salima (University of Cologne)

Presenter: BOEING, Steven (University of Leeds)

Session Classification: Poster pitches

Track Classification: Mesoscale organization of shallow and deep cumulus convection