

Projekt:

EUREC4A-MIP

Abstract:

Shallow cumulus clouds over subtropical oceans remain challenging for estimates of the cloud radiative feedback in a warmer climate. It recently became apparent that the meso-scale organization of these clouds needs to be considered to capture the variability of cloudiness and cloud radiative effects. With the recent advances in numerical modelling towards kilometer-scale global climate simulations and regional large-eddy simulations, these meso-scale features become resolvable. This model inter-comparison project is complementing the EUREC4A field campaign observations and will synergistically help to gain a better process-understanding on the meso-scale as part of the European efforts within the CONSTRAIN project, see <https://constrain-eu.org/about/who-we-are/>. Additional international partners are joining these efforts.

The possibility to exchange and provide data via the Swift system of DKRZ will substantially help this model inter-comparison project to complement the EUREC4A field campaign observations and synergistically foster a better process-understanding of the meso-scale as part of the European efforts within the CONSTRAIN project. Levante resources will be used temporarily to make data Swift-ready.