

## **Influence of convective parameterization and resolution in CORDEX Central America simulations**

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The Central America domain of the CORDEX experiment is a challenge for climate simulations because of its numerous small islands and complex topography, as well as the convective nature of the region's precipitation. We examine these effects through a matrix of simulations for the Central America region using four convective parameterizations, each simulated at the standard 50 km grid spacing and at the finer resolution of 25 km. While it has long been recognized that resolution and convective parameterization interact, this interaction has not been well evaluated in a quantitative sense. Accordingly we focus on the interaction between convective parameterization and resolution by using a method known as factor separation. This method identifies the nonlinear interaction as a residual from the effects of individual influences.