

Project: 1263

Project title: ICON-LEM simulations for Paris RDP

Principal investigator: Vera Schemann

Report period: 2024-11-01 to 2025-10-31

Within this project, we performed several simulations with a focus on urban effects for two different regions - one in the surrounding of Paris and one covering the Rhinearea in Germany - especially Jülich/Cologne. These simulations are for limited domains and on hectometer (600-100m) resolution in order to (partly) resolve important features as topography, convection, and clouds. The plan for the current period was to add additional sensitivity studies focusing on convective (heavy) rainfall and urban heat islands as well as corresponding local wind systems. Especially the local wind systems are of major interest with respect to the Rhine valley and the risk of heat waves. Due to missing human power / resources we did not manage to not perform the planned simulations so far and got delayed in our schedule. We are very positive to free some hours during the next months and to be able to perform some simulations until the end of the year. But due to the delay, we also hope to be allowed to shift some of the planned simulations to the next year.