Project: 1263
Project title: ICON-LEM simulations for Paris RDP
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During the last year, we started to perform several sensitivity studies of an observed urban heat island situations for June 2022 around paris. Unfortunately, we had to realize, that some weird signals at the surface were not caused by physical reasons but by some issues introduced with the ICON release 2.6.6.. Analyzing this issue required some further simulations, and the problem itself made it necessary to re-do all our simulations. Due to this major problem, we were not able to finish our planned simulations so far but are still in the analyzing period of the new simulations.
As the observational data are mainly processed, we are looking forward to compare our simulations to the observations as well as other simulations for identified case studies.

Figure 1 shows the temporal evolution of the surface (lowest atmospheric level) temperature during the 19.6.2022 in the surrounding of Paris. The simulation has been performed at 600m resolution using the ICON-LEM. The comparison to observations as well as the more detailed and surface-type related analysis is still ongoing work. Of special interest is the influence of the river as well as the representation / parameterization of the urban fields.

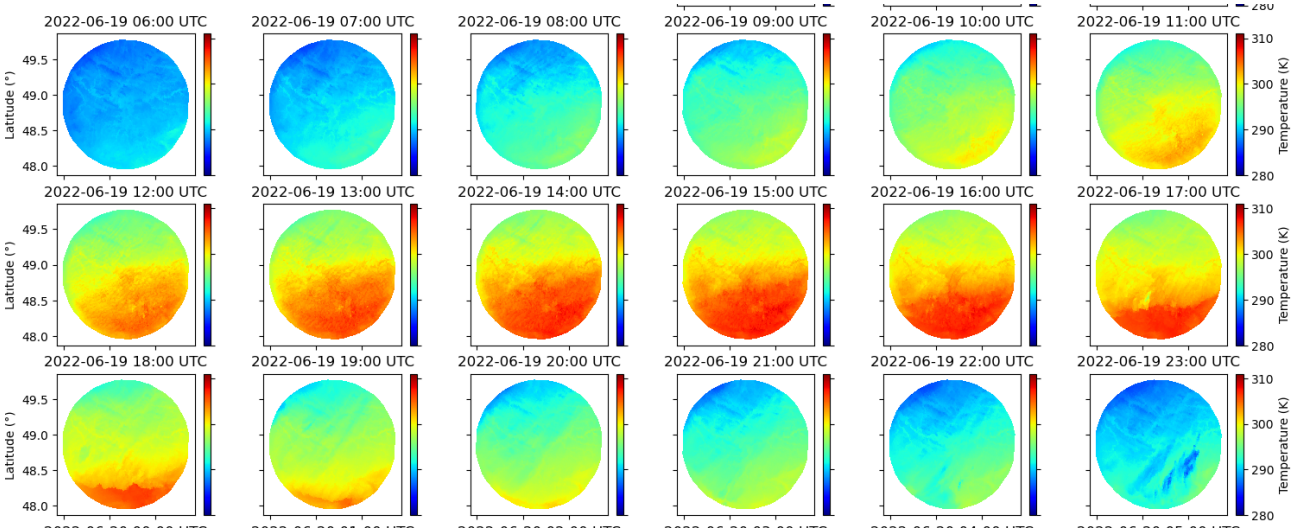

Figure 1: Evolution of temperature at lowest atmospheric level during summer day (19.6.2022) in the surrounding of Paris, simulated with 600m resolution.