Project: **1195**

Project title: **urbisphere — coupling dynamic cities and climate**

Principal investigator: **Swen Metzger**

Report period: **2020-11-01 to 2021-08-31**

Intermediate report

The project has set-up two accounts (incl. one student user to help with the data analysis and plotting), prepared the reference model and EMAC sensitivity runs. Reference simulations with EMAC T106L31 have been already performed and completed. AOD results compare well against various satellite measurements (MODIS Terra/Aqua, PMAp2 Metop 1 and 2), ground station observations (AEROENT) and independent reference simulations (CAMS reanalysis). Initial sensitivity runs have been performed too and the results presented at the EMAC Symposium 2021: “On the influence of aerosol hygroscopic growth on meteorology using model data — from global to urban scales”, Metzger, Swen, Feigel, Gregor, Steil, Benedikt, Rémy, Samuel, Christen, Andreas, Grimmond, Sue (https://doi.org/10.5281/zenodo.4902248).

Most development tasks have been performed locally on a Mac (M1) cluster to compensate for the lower CPU budget we got granted, such that the T106L31 sensitivity runs can be performed using the requested resources. Since the timing of the development is not really possible due to other project tasks, it would be desirable if the unused computing resources can be reallocated to the second half of this project period.