

Project: **1223**

Project title: **ARTEX**

Principal investigator: **Ali Hoshyaripour**

Report period: **2022-01-01 to 2022-12-31**

For the course “Turbulent Diffusion” in MSc. Meteorology, summer semester at Karlsruhe Institute of Technology (KIT), the participants performed ICON-ART experiments on levanter. For this, we asked for 16 temporary accounts for 8 weeks. The student performed the following experiments

Emission and transport of tracers: to learn about the emissions from a point source and the basic preparations for ICON-ART simulations. The experiments were on a R02B06 Grid (ca 40 km horizontal resolution) and included the variability of the source parameters.

Dust-Radiation Interactions (DRI): to learn about the emission and transport of mineral dust and the preparations for natural aerosol simulations with ICON-ART. The experiments were on a R02B06 Grid (ca 40 km horizontal resolution) and included DRI on/off.

Atmospheric Chemistry with MECCA: to learn about the atmospheric chemistry simulations with ICON-ART. The experiments were on a R02B06 Grid (ca 40 km horizontal resolution).

This year we had not “ICON-ART Training” separately.