Sapphire

This page gives a short overview of selected experiments with the pathes to the directories where the output is stored.

Note that the volume of data is very large for this kind of simulations. Users should only copy to the workspace/scratch the variables they really need for their analysis.

1. DYAMOND

DYAMOND stands for The DYnamics of the Atmospheric general circulation Modeled On Non-hydrostatic Domains, and it was the first ever intercomparison of global-storm-resolving models. Nine models participated, run for 40 days (1.8-10.9.2016), with a great number of simulations performed with ICON (NWP version). A general overview of DYAMOND is given in Stevens et al. 2020 doi and a more specific presentation of the ICON results in Hohenegger et al. 2020 doi. More technical information on the participating models can also be found on the ESiWACE DYAMOND website (website).

Accessing output

Regridded statistics on a 0.1×0.1 grid can be found on mistral under:

```
/work/ka1081/Hackathon/GrossStats
```

Full output of all models is saved on the DKRZ tape archive:

```
/hpss/arch/mh1113
```

2. ICON-LEM simulations over Germany

As part of the HD(CP)2 project (http://hdcp2.eu/), simulations with the ICON Large-Eddy Model have been performed over Germany with grid spacings of 625, 312 and 156 m for selected days. The ICON-LEM code is documented in Dipankar et al. 2015 doi and overview of the simulations are given in Riecke et al. 2017 doi and Stevens et al. 2020 doi.

Accessing output

Full output is saved on the DKRZ tape archive:

```
/hpss/arch/bm0834/k203095/ICON_LEM_DE
```

3. NARVAL simulations

As a support to the NARVAL two field campaigns, ICON simulations (NWP version) have been performed over the tropical Atlantic. Storm-resolving simulations with a grid spacing of 2.5 km over the whole tropical Atlantic basin with a local grid refinement of 1.25 km over the western basin have been performed for December 2013 (NARVAL) and August 2016 (NARVALII). Those simulations are documented in Klocke et al. 2017 doi. Large-eddy simulations with a grid spacing of 1250, 600, 300 and 150 m have been performed over the western Atlantic for selected days and are documented in Stevens et al. 2019 doi.

Accessing output

Output of the storm-resolving simulations is saved for the two field campaigns NARVAL and NARVALII on the DKRZ tape archive:

```
/hpss/arch/bm0834/k203095/HErZ-NARVAL
/hpss/arch/bm0834/k203095/HErZ-NARVALII
```

Output of the large-eddy simulations is saved on the DKRZ tape archive:

```
/hpss/arch/bm0834/k203095/HDCP2_TA
```