Technical documentation

Code: nudged\_spinup\_nac\_test.py

**How to change the variable to be nudged?**

The default variable is “DIA\_DOM”. To change variable, you need to replace “DIA\_DOM“ by the name of the variable ‘VARNAME’you want In the code. Furthermore, you need to generate a file called VARNAME.nc containing the obervations.

Create a pandas dataframe with the columns: obs, error, lat, lon

obs is for instance the height, error the standard deviation of the sample

Warning: Be careful that the unit of the model output is the same than the unit of the observations

**How to create a Dataframe?**

Import pandas as pd

NewDF={“obs”:[],”lat”:[],”lon”:[],”error”:[]}

For iobs in range(nobs):

NewDF[“obs”]=..

NewDF[“lat”]=..

NewDF[“lon”]=..

NewDF[“error”]=.. (always the same value)

NewDF=pd.DataFrame(NewDF)

**How to convert a dataframe to a netcdf?**

The dataframe is converted to a netcdf with this formula:

Import xarray as xr

DataFrame.to\_xarray().to\_netcdf(“VARNAME.nc”)