

# Paths dataset

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▼ Class	Simulador
🕒 Created	@Mar 25, 2021 11:21 AM
🔗 Materials	
≡ Property	
▼ Type	

## ▼ Mistral

- Main: `cd /work/bb1036/b381362/dataset`
- Main: `cd /work/bb1036/b381362/dataset_old`

## ▼ Creation of the dataset

- Dom3= 156m
1. `cdo select,name=cli,clw,clc,hus,qr,qs,pres,ta 3d_coarse_day_II_DOM03_ML_20130502T090000Z.nc variables3D-rttov.nc`
  2. `cdo select,name=t_s,u_10m,v_10m,ps 2d_surface_day_DOM03_ML_20130502T090000Z.nc variables2D-rttov.nc` (en poorgafile no hay esas )
  3. `/opt/netcdf/current/bin/ncdump -h /poorgafile1/climate/hdcp2/GRID_default_3d_fine_DOM03_ML.nc` (tomography=orography)
    1. `cdo select,name=z_ifc,z_mc,topography_c /poorgafile1/climate/hdcp2/GRID_default_3d_fine_DOM03_ML.nc /home/jvillarreal/GRID_DOM3.nc`  
???? no funciona probar con lo siguiente  
[https://nicojournain.github.io/students\\_dir/students\\_netcdf\\_nco/](https://nicojournain.github.io/students_dir/students_netcdf_nco/) esto no funciona pero lo siguiente si:
      1. `cdo -P 8 remapnn,myGridDef - setgrid,/poorgafile1/climate/dipu/forces/analysis/GRID/hdcp2_de_default_nest_R0156m.nc - selname,z_ifc,z_mc,topography_c /poorgafile1/climate/hdcp2/GRID_default_3d_fine_DOM03_ML.nc /home/jvillarreal/GRID_DOM3.nc`
    2. copiar al MISTRAL —me equivoque en el 1,2 no se debe eliminar el hegith, heigth\_2 lo que hice en el notebook notebook\_input\_rttov.ipynb crear a new file con lo que yo queria GRID\_DOM3\_new.nc <https://unidata.github.io/python-training/workshop/Bonus/netcdf-writing/>
      1. `scp /poorgafile1/climate/hdcp2/GRID_default_3d_fine_DOM03_ML.nc b381362@mistral.dkrz.de:/work/bb1036/b381362/dataset`
      2. `cdo -P 8 remapnn,myGridDef - setgrid,/work/bb1036/b381362/dataset/hdcp2_de_default_nest_R0156m.nc - selname,z_ifc,z_mc,topography_c /work/bb1036/b381362/dataset/GRID_default_3d_fine_DOM03_ML.nc`

- /work/bb1036/b381362/dataset/GRID\_DOM3.nc —esto ya me da solo un tiempo ya no debo eliminar el timestep no funciona lo hice en Poorgafile1
3. ncks -d height,2,,151. GRID\_DOM3.nc GRID\_DOM3\_cut.nc %height: 2-151, height\_2: 1 -150  
///lo malo es q los valores estan al revez comparado con lo q tengo de guia tes-2 luego cambiar !!!!!
  4. ncap2 -s "heigh=height-1" GRID\_DOM3\_cut.nc mmmc no funciona
  5. <https://stackoverflow.com/questions/62723241/how-to-add-new-variables-for-an-xarray-dataset-using-groupby-and-apply>. rotar
  6. nc\_rename -h -O -v old\_variable\_name,new\_variable\_name filename.nc ver esto!
  7. [https://nicojourdain.github.io/students\\_dir/students\\_netcdf\\_nco/](https://nicojourdain.github.io/students_dir/students_netcdf_nco/) info!!!
  8. [https://pyhogs.github.io/intro\\_netcdf4.html](https://pyhogs.github.io/intro_netcdf4.html)
4. \$ /opt/netcdf/current/bin/ncdump -h  
/poorgafile1/climate/dipu/forces/analysis/GRID/hdcp2\_de\_default\_nest\_R0156m.nc
    1. cdo select,name=cell\_sea\_land\_mask  
/poorgafile1/climate/dipu/forces/analysis/GRID/hdcp2\_de\_default\_nest\_R0156m.nc  
/home/jvillarreal/grid\_R0156m.nc NO ES ESA SENAL
    2. /opt/netcdf/current/bin/ncdump -h grid\_R0156m.nc
    3. cdo -P 8 remapnn,myGridDef -  
setgrid,/poorgafile1/climate/dipu/forces/analysis/GRID/hdcp2\_de\_default\_nest\_R0156m.nc -  
selname,cell\_sea\_land\_mask /home/jvillarreal/grid\_R0156m.nc  
/home/jvillarreal/[grid\\_R0156m\\_1step.nc](#) NO ES ESA SENAL
  5. cdo -P 8 remapnn,myGridDef -  
setgrid,/work/bb1036/b381362/dataset/hdcp2\_de\_default\_nest\_R0156m.nc -selname,FR\_LAND  
/work/bb1036/b381362/dataset/extpar\_hdcp2\_de\_default\_nest\_R0156m.nc  
/work/bb1036/b381362/dataset/landmask\_grid.nc —esto ya me da solo un tiempo ya no debo eliminar el timestep
  6. module load nco
  7. debo eliminar una dimension
    - ncwa -a time,height\_2 variables2D-rttov.nc 2D.nc
    - ncwa -a time variables3D-rttov.nc [3D.nc](#)
    - ~~ncks -O x v Band,my\_plottable\_riable new\_misr.nc mytest.nc %no probe~~
  8. Copy some files to GRID 2D de serve\_leipzig to Mistral
    1. scp hdcp2\_de\_default\_nest\_R0156m.nc  
b381362@mistral.dkrz.de:/work/bb1036/b381362/dataset
    2. scp myGridDef b381362@mistral.dkrz.de:/work/bb1036/b381362/dataset
    3. cdo -P 8 remapnn,myGridDef -  
setgrid,/work/bb1036/b381362/dataset/hdcp2\_de\_default\_nest\_R0156m.nc -  
selname,v\_10m,u\_10m,t\_s,ps /work/bb1036/b381362/dataset/2D.nc  
/work/bb1036/b381362/dataset/2D\_grid.nc

▼ tuve problemas con el GRID x la memoria creo allocation cannot allocate memory luego chequear lo hice en el server interno si se puede pero en el appssh -X  
b381362@mistralpp.dkrz.de

1. (phd) jvillarreal@poorga1:~\$ sftp b381362@mistral.dkrz.de b381362@mistral.dkrz.de's password:  
Connected to b381362@mistral.dkrz.de.  
sftp> cd /work/bb1036/b381362/dataset  
sftp> get 2D.nc
2. (base) jvillarreal@poorga1:~\$ cdo -P 8 remapnn,myGridDef -  
setgrid,/poorgafile1/climate/dipu/forces/analysis/GRID/hdcp2\_de\_default\_nest\_R0156m.nc  
-selname,v\_10m,u\_10m,t\_s /home/jvillarreal/2D.nc /home/jvillarreal/2D\_grid.nc
3. sftp> put 2D\_grid.nc (en el otro terminal, abri 2)
4. ncdump -h 2D\_grid.nc
9. cdo -O -f nc merge 3D.nc 2D\_grid.nc input1\_rttov.nc  
(<https://code.mpimet.mpg.de/boards/2/topics/5239>)
10. Faltas las otras variables height, half, landmask, orography
  1. scp grid\_R0156m\_1step.nc b381362@mistral.dkrz.de:/work/bb1036/b381362/dataset ??no use
  2. scp GRID\_DOM03\_new.nc b381362@mistral.dkrz.de:/work/bb1036/b381362/dataset ok
11. cdo -O -f nc merge 3D.nc 2D\_grid.nc landmask\_grid.nc GRID\_DOM3\_new.nc input\_test\_rttov.nc
12. cortar para q no pese mucho
  1. ncks -d lon,5,.6. -d lat,48,.50. input\_test\_rttov.nc test\_rttov.nc %Npoint=182\*59=10738NO HICE 2 TIME  
sftp b381362@mistral.dkrz.de b381362@mistral.dkrz.de's password:
  1. sftp> cd /work/bb1036/b381362/dataset
  2. sftp> get test\_rttov.nc voy a probar en el poorgafile el landmask
13. test
  1. change the name in github/Retrievals/ML\_RTTOV/src/main/ml\_rttov.f90
  2. source ~/.bashrc
  3. conda activate phd
  4. cd github/Retrievals/ML\_RTTOV/
  5. module load intel
  6. make
  7. ./ml\_rttov
14. Analizar el landmask
  1. jupyter-lab --no-browser --port=8887
  2. ssh -N -f -L localhost:8888:localhost:8887 jvillarreal@192.168.155.1

### 3. notebook\_input\_rtov.ipynb

#### ▼ CDO

- <https://code.mpimet.mpg.de/projects/cdo/wiki/Tutorial>
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#### ▼ commands

- `ncdump -v time variable2D_1step_rtov.nc`
- `ncdump:` <https://www.unidata.ucar.edu/software/netcdf/workshops/2011/utilities/NcdumpExamples.html>
- `ncdump -k GRID_DOM3_new.nc` check what netcdf is

#### ▼ Variables que faltan:

- `heigh_half`  
`landmask =`  
`orography =`  
`heigh ---(level, lat,lon) /// I have height(height)`

to do check the size of all the eliminar timetep and use solo un archivo de cada variable tbn heigh me dijo q era el mismo valor en long lang peor ja dijo q use presion y densidad

```
<link rel="stylesheet" type="text/css" href="https://meteo.physgeo.uni-leipzig.de/meteo.css"><link  
rel="stylesheet" type="text/css" href="https://meteo.physgeo.uni-leipzig.de/header.css">
```