Quickguide

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#> make

#> ./TEST\_RUN

#> python TEST\_PLOTS.py

Contents of this directory

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This directory contains Fortran 90 code for the initialization of water vapor for the Cold Pool Model Intercomparison Project (CP\_MIP).

The files in this directory are:

- module module\_water\_vapor\_initialization.f90

This Fortran module contains:

> the routine initialize\_water\_vapor\_mesoscale\_anomaly. It's purpose is to be incorporated in the models that contribute to CP-MIP. It takes as input a 3D array with a water vapor distribution, and applies a mesoscale mosture anomaly, while conserving the vertical profile of mean horizontal water vapor. The functionality and parameters of this routine are documented in its source.

> The routines initialize\_water\_vapor\_z and initialize\_water\_vapor\_xyz which are used by the test code TEST\_RUN.

- TEST\_RUN.f90

This is a test code for the module module\_water\_vapor\_initialization.f90 with the following functionality:

> create a 3D water vapor distribution

> apply a mesoscale moisture anomaly

> save the original water vapor distribution and the water vapor distribution with the mesoscale anomaly in files

- TEST\_PLOTS.py

This Python code reads the files created by TEST\_RUN and creates horizontal slices of the water vapor distribution with the mesoscale anomaly, and the vertical profiles of the horizontal mean water vapor before and after the mesoscale anomaly was applied.

- Makefile

> Make file to compile TEST\_RUN with gfortran

- README.txt

> This file

Author

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