Wavenumber Frequency Spectra Diagnostic Module From NCAR

Last update: 03/11/2019

Contact info

Current Developer: Dani Coleman (bundy@ucar.edu), NCAR
Contributors: Dennis Shea, Andrew Gettleman, Jack Chen, Rich Neale (NCAR)

Produces wavenumber frequency spectra for OLR, Precipitation, 500hPa Omega, 200hPa wind and 850hPa Wind.

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Functionality

Python code calls NCL wkSpaceTime_driver.ncl code for each of the variables in turn.

Preprocessed observational data in the form of gif figures from NCEP precipitation, OLR, Omega and winds, and TRMM precipitation are in the mdtf/inputdata/obs_data/Wheeler_Kiladis directory

Place your input data at: mdtf/inputdata/model/$model_name/day
index.html can be found at: mdtf/MDTF_$ver/wkdir/MDTF_$model_name

Required Programing Language and libraries:

All these scripts required NCAR Command Language Version 6.3.0 or higher

Required input data to the module:

Daily U200, U850, OMEGA500, OLR, PRECT

References:

Wheeler, Matthew, and George N. Kiladis. “Convectively Coupled Equatorial Waves: Analysis of Clouds and Temperature in the Wavenumber–Frequency Domain.” *Journal of the Atmospheric Sciences* 56, no. 3 (February 1, 1999): 374–99. https://doi.org/10.1175/1520-0469(1999)056<0374:CCEWAO>2.0.CO;2.

More About the Diagnostic