**Information about Level 2 – MSE budget analysis**

At this level, the code estimates vertically integrated MSE budget terms.

Required input data are calculated in **Level 1.** To execute this level, set the parameter

MSE = 1 in mdtf.py python file. Users need to complete **Level 1** diagnostics first before running **Level 2**.

The following terms are calculated as vertical integrals:

MSE:

MSE vertical advection:

moisture divergence: .

moisture advection:

temperature advection:

*Note that vertically integrated moisture divergence is also estimated here*.

Note also that surface and radiative fluxes, are already estimated in Level 1. All MSE terms are expressed in W/m-2.

Final output directories:

The El Niño/La Nina composites are under directories:

~/wkdir/MDTF\_{case\_name}/MSE/model/netCDF/ELNINO

and

~/wkdir/MDTF\_{case\_name}/MSE/model/netCDF/LANINA

respectively.

Graphical output files reside in : ~/wkdir/MDTF\_{case\_name}/MSE/model directory.

(e.g. {case\_name} = CCSM4).