Information about Level 4 – MSE scatter plots (Metric)

At this level the code produces scatter plots between MSE budget terms and precipitation.

The necessary input data are calculated in **Level 1** and **Level 2.** To run this level diagnostic a user needs to process the data at **Level 1** and **Level 2** first and for all models considered.

To select this level set the parameter SCATTER = 1 in mdtf.py python file.

At this level the following scatter plots are generated:

a) precipitation (x-axis) *versus* horizontal moisture advection (y-axis)
b) precipitation (x-axis) *versus* net radiative flux divergence (y-axis)
c) precipitation (x-axis) *versus* vertical advection of MSE (y-axis)
d) precipitation (x-axis) *versus* total heat flux (latent + sensible) THF (y-axis)

All are seasonal El Niño composite anomalies averaged over:

a) Equatorial Central Pacific 180°–200°E 10°S – 5°N
b) Equatorial Eastern Pacific 220°–280°E 5°S – 5°N

All variables are expressed in W/m^{-2}.

The list of models + observation data included in the scatter plots is given in:
~/var_code/ENSO_MSE/SCATTER/list-models-historical-obs.

Final output directories:
Graphical output is in ~/wkdir/MDTF_SCATTER.