

The use of GMAO data by 61A Lab

Ingest on hourly basis

- GEOS-FPIT inst3_3d_asm_Nv
- GEOS-FP inst3_3d_asm_Nv
- GEOS Forecast fcst.inst3_3d_asm_Nv
- GEOS Forecast fcst.inst3_3d_asm_Nv
- GEOS DFPITT1NXLND fpit.asm.tavg1_2d_Ind_Nx
- MERRA2 tavg1_2d_Ind_Nx
- MERRA2 inst6_3d_ana_Nv

Transformation from the terrain following GMAO native grid to a global, regular (but not uniform) grid:

- Getting DELP
- Solving the hypsometric differential equation
- Extrapolation above the ToA and below the lowest level
- Interpolation vertical profile to a new grid
- Expansion the 3D field in the 3D B-spline basis