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GERB data: average monthly diurnal cycle TOA fluxes for Obs4MIPs

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The Geostationary Earth Radiation Budget (GERB) instruments on the Meteosat Second Generation satellites have been observing broadband radiances at high temporal resolution, over the Meteosat region, since 2004. Top of atmosphere reflected solar and emitted thermal fluxes, which resolve the diurnal cycle in the radiation budget, are derived from these observations.

Here we present new products designed for direct comparison with climate model output. These GERB monthly timestep average flux products, developed within the Obs4MIPs framework, are currently available in NetCDF format for the period 2008 to 2012. These products are based on the newly released GERB high spatial resolution Edition 1 data and incorporate the most up to date knowledge of the GERB calibration and its in-orbit evolution. We will discuss the characteristics of these average products and how they were produced and show some example comparisons with climate model output.