Readme

Sea ice concentration data produced from a simulation with the sea ice model CICE-CPOM-2019, including a prognostic floe size distribution model to study the MIZ. University of Reading.

Monthly mean sea ice concentration output from CICE-CPOM-2019, a stand-alone (fully forced) dynamic-thermodynamic sea ice model, based on CICE model version 5.1.2, but with an added prognostic floe-size distribution (Roach et al., 2018), prognostic melt pond model (Flocco et al, 2010, 2012), and elastic anisotropic plastic rheology (Heorton et al., 2018; Tsamados et al., 2014; Wilchinsky and Feltham, 2006). Also, a prognostic mixed layer allows the ocean below the mixed layer to be relaxed toward observations so that the mixed layer can calculate its salinity, temperature, and depth based on the fluxes from the deeper ocean (Petty et al., 2014). Temperature and salinity below the ocean mixed layer are restored every 20 days to climatological monthly means from MYO-WP4-PUM-GLOBAL-REANALYSIS-PHYS-001-004 (Ferry et al, 2011). Atmospheric forcing used was NCEP Reanalysis-2 (Kanamitsu et al., 2002, updated 2017).

Further information and model description can be found in
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