

# Data Management Plan

The proposed work will yield the following products that will be made publically available with accompanying metadata:

## Data Types Generated

1. Deep Argo data in standard ECCO NetCDF structure will be produced for assimilation into ECCO-Darwin in WP 3. These files will be committed to the ECCO development repository to be merged with the core state estimate database and made publicly available.
2. Model output will be produced from ECCO-Darwin with constraints exerted from both (1) existing observations from the Deep Argo pilot arrays and (2) hypothetical oxygen measurements from the GFDL CM2.6 Nature Run. This model output will be made available upon publication through zenodo.

## Code

ECCO is based on the MITgcm, which has been publicly available online for close to two decades. Dedicated Python and Matlab toolboxes have been developed for analyzing ECCO model outputs and calculating budgets. These toolboxes will be used in the proposed work and are already freely shared on GitHub with installation instructions, documentation and key references. PI Helen Pillar is a contributing member of the ECCO project team, codeveloper of the ASTE regional state estimate within ECCO, and contributor of recent documentation for closing the momentum budget within ASTE and ECCOv4r5.