

# Atmospheric Potential Oxygen forward Model Intercomparison Project (APO-MIP) - Repository Contents

This repository contains model simulation input, output, and processing code from the Atmospheric Potential Oxygen forward model intercomparison experiment (APO-MIP), as described here:

Yuming Jin, Britton B. Stephens, Matthew C. Long, Frédéric Chevallier, Naveen Chandra, Joram J.D. Hooghiem, Ingrid T. van der Laan-Luijkx, Shamil Maksyutov, Eric J. Morgan, Yosuke Niwa, Prabir K. Patra, Christian Rödenbeck, Jesse Vance, 2025: The Atmospheric Potential Oxygen forward Model Intercomparison Project (APO-MIP): Evaluating simulated atmospheric transport of air-sea gas exchange tracers and APO flux products, to be submitted to Geoscientific Model Development.

and in the included Experiment Protocol and Notes on Submissions documents.

The repository includes:

1. Daily 1x1 degree provided flux fields for 10 tracers and one small checksum verification text file.  
apo-mip/apo-fwd-fluxes
2. Co-sampled model output for surface stations, ships, and aircraft.  
apo-mip/apo-simulation-data

All of this output is as submitted by participants except for the common-format-obspack subdirectory contents, which are a result of post-processing.

3. Processing code (Jupyter notebooks)  
apo-mip/apofwd and <https://github.com/brittstephens/apofwd>
4. Text files specifying station and shipboard sampling locations  
apo-mip/apo-cosample-files
5. A pdf copy of the Experiment Protocol  
apo-mip/experiment\_protocol.pdf
6. A pdf document with notes on the submissions  
apo-mip/submission\_notes.pdf
7. This table of contents  
apo-mip/toc.pdf