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Forced ocean hindcast experiments based on the CMIP6/GFDL/MOM6 ocean component (OM4) are used to evaluate model-data differences at PIRATA moorings. We focus our analysis mainly at 4N, 23W where high vertical and temporal resolution observations of Tropical Instability Waves (TIWs) reveal that these features are represented poorly by the model. In order to examine the source of these model-data differences, a series of sensitivity experiments are presented showing model response to forcing (JRA55-do, MERRA-2, and ERA5), resolution, and mixing. Poster PDF

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