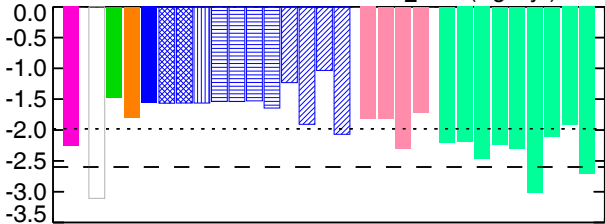


### mean 1994-2007 sea-air CO<sub>2</sub> flux (PgC/yr)



OCIM (total flux)

Prior (Expl. Int. Map. and Regr.)

Explicitly Interannual Mapping

Multi-linear Regression

Hybrid Mapping (this study)

Hybrid [RegrSSTNOAA]

Hybrid [RegrU2NCEP]

Hybrid [RegrNoDecad]

Hybrid [RegrLoose]

Hybrid [RegrShort]

Hybrid [MLDq2]

Hybrid [MLDx2]

Hybrid [GasexLow]

Hybrid [GasexHigh]

Hybrid [GasexU1]

Hybrid [GasexU3]

CMEMS-FFNN v2020

CSIR-ML6 v2020

JMA-MLR v2020

MPI-SOMFFN v2020

CESM-ETH

CNRM

CSIRO

FESOM-REcoM

IPSL-PISCES

MOM6-COBALT

MPI

NEMO-PlankTOM5

NorESM