



Supplement of

iMarNet: an ocean biogeochemistry model inter-comparison project within a common physical ocean modelling framework

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1 Surface fields



Figure S1. Annual average integrated primary production $(gCm^{-2} d^{-1})$ for all models and observations and a Taylor plot (top right) of all models relative to observations. Note that the models with negative correlation coefficients are not shown in the Taylor plot.



Figure S2. Annual average Dissolved Inorganic Carbon (DIC) (mmol C m⁻³) for all models and observations and a Taylor plot (top right) of all models relative to observations.



Figure S3. Annual average alkalinity (meq m⁻³) for all models and observations and a Taylor plot (top right) of all models relative to observations.



Figure S4. Annual average oxygen (mmol $O_2 \text{ m}^{-3}$) for all models and observations and a Taylor plot (top right) of all models relative to observations. Note that the models with negative correlation coefficients are not shown in the Taylor plot.



Figure S5. Monthly Taylor plots for pCO₂, Dissolved Inorganic Nitrogen (DIN), chlorophyll, primary production and oxygen for all models relative to observations. Annual averages are shown in black. Note that negative correlation coefficients are not shown in the Taylor plot.

2 Depth profiles







Figure S7. Dissolved Inorganic Nitrogen (DIN) depth profiles for the Equatorial Pacific, Southern Ocean and North Atlantic.

3 Computational cost



Figure S7. The compute cost of ocean biogeochemical models relative to a physics-only simulation against the number of model tracers.