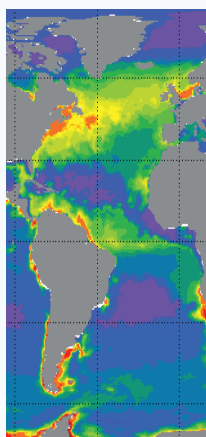


SYSTEM FOR GLOBAL OCEAN BIOGEOCHEMICAL NON ASSIMILATIVE HINDCAST AT 1/4°



Geographical coverage : Global Ocean (180°W-180°E; 77°S-90°N)
 Physics or Biogeochemistry : Biogeochemistry
 Grid and Resolutions : ORCA025 [1/4°; 50 levels]
 Grid size : 1442 x1021 x50 (partial steps)
 Code et Version : PISCES-NEMO3.5 for biogeochemistry forced by GLORYS2V3-FREERUN in version NEMO3.1 for Physics
 Data assimilation : No
 Sea Ice Modeling : Cf GLORYS2V3-FREERUN
 Tides : Cf GLORYS2V3-FREERUN
 Bathymetry : Cf GLORYS2V3-FREERUN
 Free run configuration name : Cf GLORYS2V3-FREERUN
 Time step : 2400s (tracers and biogeochemistry)
 Update : None

Reference : BIOMER-FREERUN

Forcing and Data Assimilation

• Data assimilation :	No
• Data assimilation scheme:	None
• Data assimilated :	None
• Atmospheric or Biogeochemical forcings :	Atmospheric forcings: Cf GLORYS2V3-FREERUN Biogeochemical forcings: Fe input through sediment and wind
• Runoff :	For physics: Cf GLORYS2V3-FREERUN; NO ₃ , PO ₄ , Fe, Si, DIC inputs through rivers
• Open Boundary Conditions :	No

Initial Conditions and Relaxation

• Initial conditions :	Levitus WOA (2001) for NO ₃ , O ₂ , PO ₄ , Si; GLODAP for DIC and Alkalinity; Restart from a 3000 years long run for Iron (Fe) and DOC;
• Surface relaxation :	No
• Water column (3D) relaxation :	No
• Convection :	Cf GLORYS2V3-FREERUN

Parametrisation

• Surface physics parametrisation :	Cf GLORYS2V3-FREERUN
• Bottom friction :	Cf GLORYS2V3-FREERUN
• Lateral friction :	Cf GLORYS2V3-FREERUN
• Vertical mixing :	Cf GLORYS2V3-FREERUN ; weekly average of log ₁₀ (kz) is performed
• Advection :	Cf GLORYS2V3-FREERUN
• Tracer diffusion :	Cf GLORYS2V3-FREERUN
• Momentum diffusion :	Cf GLORYS2V3-FREERUN
• Horizontal diffusion coefficient for tracers and momentum :	Cf GLORYS2V3-FREERUN
• Vertical diffusion coefficient for tracers and momentum :	Cf GLORYS2V3-FREERUN