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OceanBioME

Ocean **Bio**geochemical **M**odelling **E**nvironment

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CLIMATE REPAIR

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Motivation

- Interplay of physics/biology/chemistry difficult to disentangle when trying to quantify OCDR
- Modelling tools can be hard to use and/or slow

Solution

- Fast and flexible ocean biogeochemical modelling tools
- Easy to use modular components for optional complexity
- Biogeochemistry, light attenuation, air-sea gas exchange, sediment, “active” individuals
- Written in Julia within *Oceananigans.jl* so fast, GPU friendly, and easy to read - works at any spacial scale
- Easily integrates with *EnsembleKalmanProcesses.jl* for data assimilation

Available at:
github.com/OceanBioME/
OceanBioME.jl or scan here →

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Example: Kelp-seeded buoys and biogeochemistry in a submesoscale eddy