

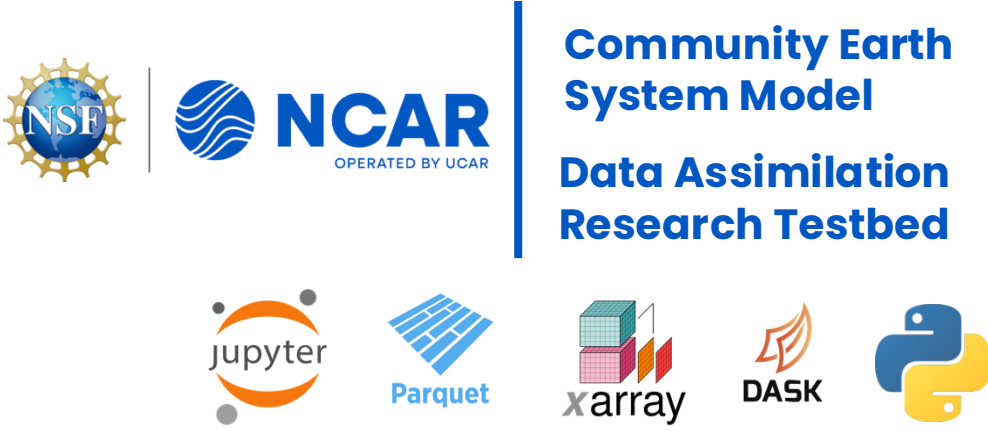
Rapid prototyping for regional ocean and coupled capabilities with MOM6 and CESM

Dan Amrhein, Manish Venumuddula, Helen Kershaw, Alper Altuntas, Mike Levy, Fred Castruccio, Ashley Barnes, Aidan Janney, Marlee Smith, Gustavo Marques, Keith Lindsay, Ira Ranjan

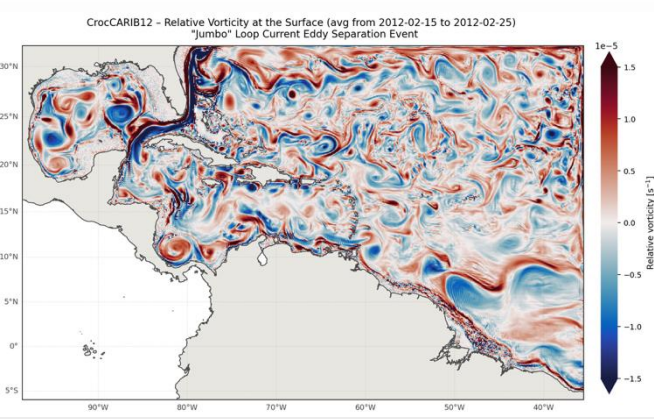
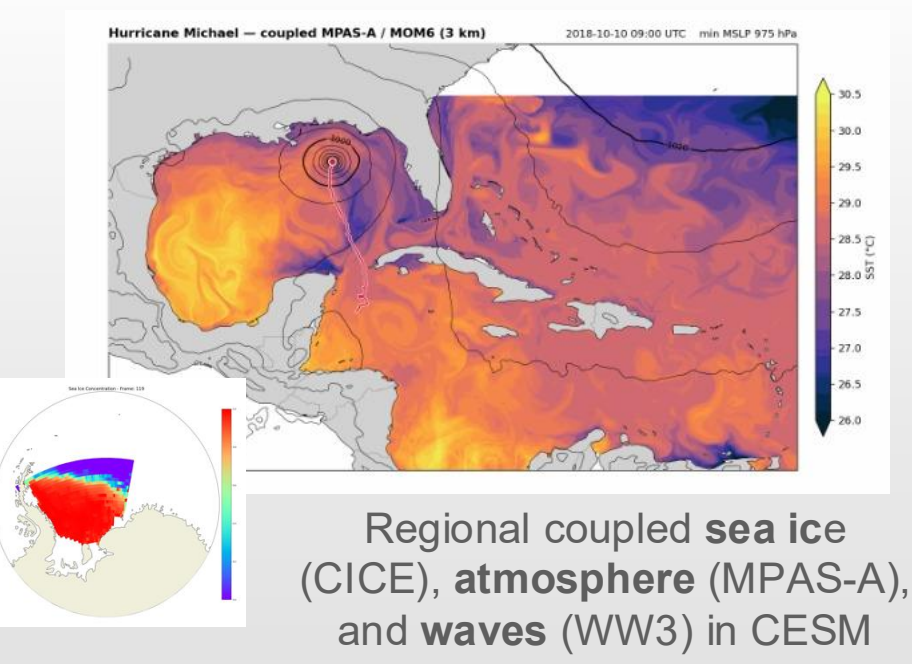
Roo Nicholson, Enrico Milanese, Susan Wijffels



CROCODILE:
advancing + integrating
cyberinfrastructure
to put **regional ocean** and
Earth system modeling
at your fingertips

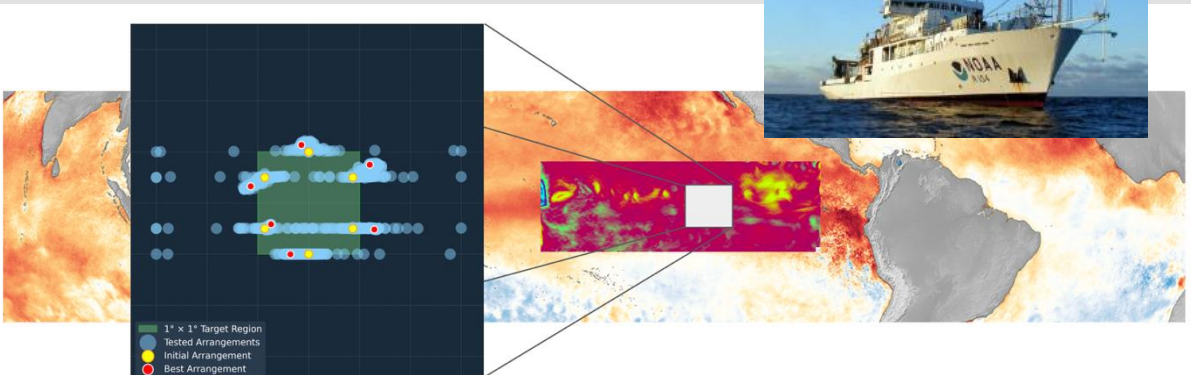


New capabilities in year 3



MOM6 emulation with CREDIT
(Aidan Janney, CU senior thesis)

Observing system
simulation experiments
(OSSEs) for the NOAA
TPEX-E experiment
(Ira Ranjan, NSF NCAR
SIParCS intern)

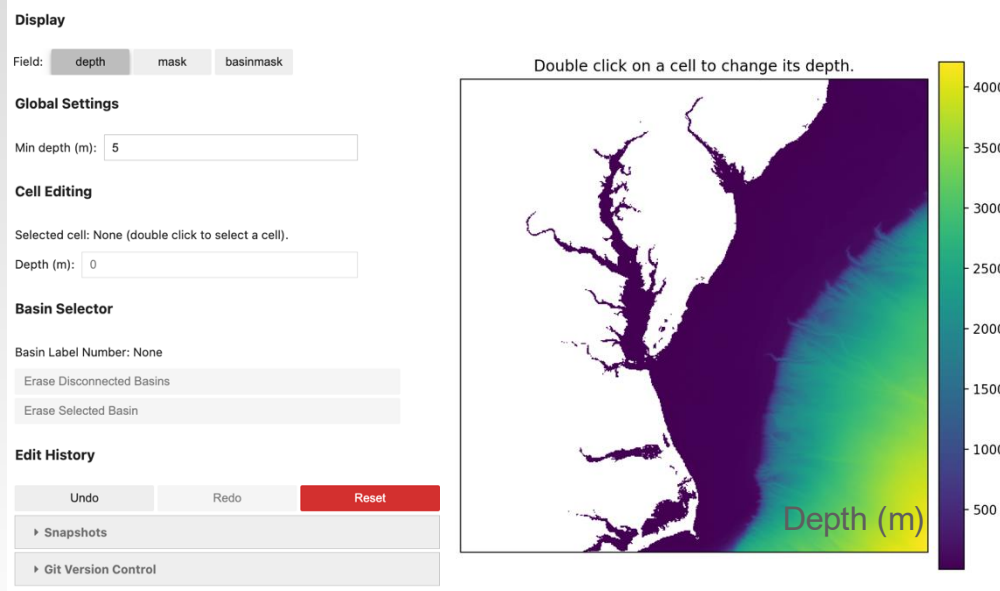


CrocoDash: Quickly generate ocean model grids and initial + boundary conditions anywhere in the world

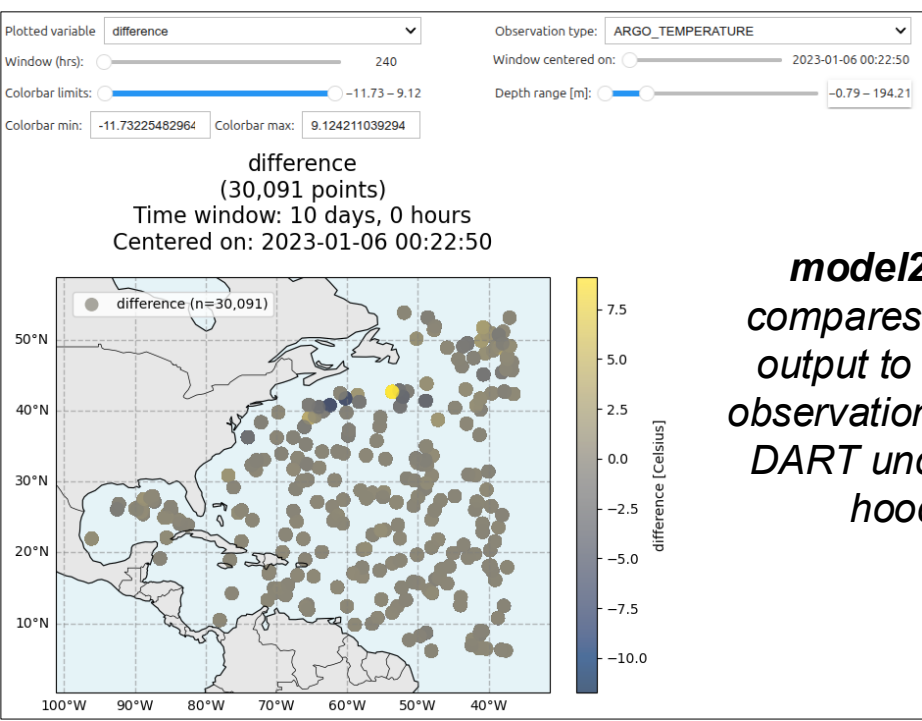
Save, undo, and retrieve changes to model bathymetry (crucial for ocean circulation) in a Jupyter notebook rather than editing files manually.



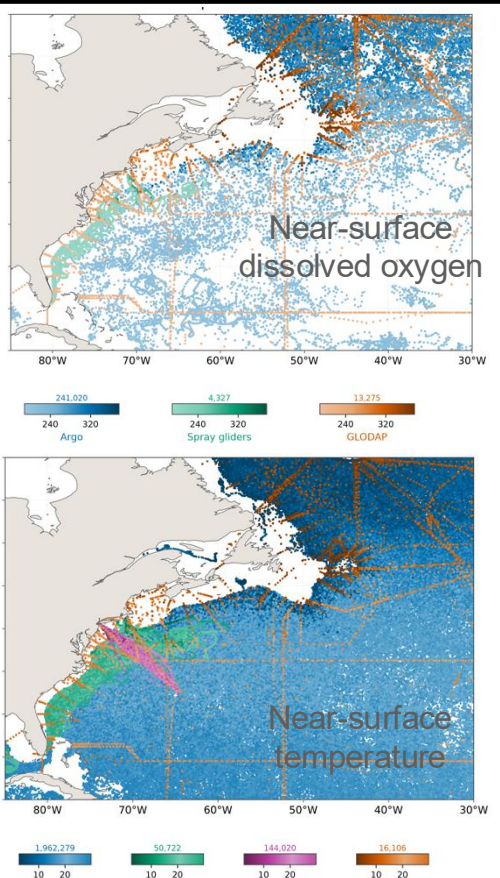
Documentation and examples



CrocoLake: AI-ready ocean obs for data-model comparison



model2obs
compares model
output to ocean
observations using
DART under the
hood



Growing our community: Past and upcoming workshops

Regional ocean modeling with MOM6 in the Community Earth System Model framework

CROCODILE + MOM6

WORKSHOP

Oct. 13 to Oct. 17, 2025

Creating Data Pipelines for Novel Ocean Observations

Join us for a hackathon-style workshop at UCAR in Boulder, Colorado, February 16-18, 2027, and bring a dataset you'd like to work with!

WHEN	WHERE	APPLY BY
February 16-18, 2027	UCAR in Boulder, Colorado	Friday, October 16, 2026

[Apply to Participate](#)

Applications are due Friday, October 16. Learn more about the workshop, participant expectations, and application process on the workshop website. Some travel assistance is available via the application process.

2026 Regional Ocean Modeling with MOM6 in the Community Earth System Model Framework

28 Sept – 2 Oct 2026