Ocean Model Working Group Winter Meeting

Back at the Mesa Lab!

NCAR

9 FEBRUARY 2023

Thursday, February 9

Time	Topic	Speakers
Mesa Lab Damon Room and Hybrid		
8:30	*Welcome and logistics*	
	Ocean and Climate Diagnostics	
8:40	Frequency dependence of ocean kinetic energy and its change over the period 1983-2018	Nuno Serra
9:00	The SubAntarctic Zone - Water Mass Formation and climate change	Justin Small
9:20	Antarctic Ice Sheet discharge drives long-term, large scale Southern Ocean circulation changes	Tessa Gorte
9:40	Exceptional multi-year prediction skill of the Kuroshio Extension in a high-resolution decadal prediction system	Who Kim
10:00	South Atlantic heat balance in a warming climate	Maurício Rebouças Rocha
10:20	*BREAK*	
	Ocean Model Development	
10:40	Insights from developing a coarse-resolution configuration of MOM6	Willem Huiskamp
11:00	Parameterizing Vertical Turbulent Mixing Coefficients In The Ocean Surface Boundary Layer Using Neural Networks (Implemented in MOM6)	Aakash Sane
11:20	Learning Ocean Model Errors from Data Assimilation Increments	Tarun Verma
12:00	*LUNCH BREAK*	
13:00	HYCOM1 vs HYBGEN for ALE Regridding	Alan Wallcraft
13:20	Utilizing CESM Simple Models Toolkit for Idealized MOM6 Applications	Alper Altuntas
13:40	Progress and Plans - CESM/MOM6	Gustavo Marques
14:00	*Discussion - Towards the CESM3 MOM6 Release*	
14:20	*BREAK*	
	Regional Ocean Modeling	
14:40	Using iHESP to Drive a Coastal Model for Detailed Inundation	Baylor Fox-Kemper
15:00	Modeled coastal-ocean pathways of land-sourced contaminants in the aftermath of Hurricane Florence and future extreme precipitation scenarios	Melissa Moulton
15:20	Regional MOM6/CESM configuration for the Caribbean Sea	Giovanni Seijo
15:40	*Discussion - Regional Ocean Modeling in CESM*	
16:00	*ADJOURN*	
16:30	*Unofficial gathering at Southern Sun Brew Pub*	

Friday February 10

Time	Topic	Speakers
Mesa Lab Damon Room and Hybrid		
8:55	*Welcome and Logistics*	
	Regional Ocean Modeling (continued)	
9:00	High-resolution regional ocean modeling: Coupling ROMS to E3SM	Robert Hetland
	Diapycnal Mixing and Ocean Boundary Layer Parameterization	
9:20	Evaluating vertical mixing scheme performance using mixing observations	Deepak Cherian
9:40	Improved upper ocean vertical mixing parameterization for simulating the tropical Pacific Ocean in climate models	Brandon Reichl
10:00	Seasonal and subseasonal variability of diabatic upwelling in the tropical Pacific Cold Tongue	Anna-Lena Deppenmeier
10:20	*BREAK*	
10:40	Development and calibration of a turbulent-kinetic-energy-based boundary layer turbulence closure	Gregory Wagner
11:00	Recent development of a wavy ocean boundary layer parameterization for MOM6	Bill Large
11:20	A Particle-In-Cell Wave model for efficient sea-state and swell estimates in coupled models	Momme Hell
11:40	*Discussion - Waves, PBL parameterization*	
12:00	*LUNCH BREAK*	
	Mesoscale and Submesoscale Parameterization	
13:00	A Data-Driven Approach for the Submesoscale Parameterization	Abigail Bodner
13:20	An investigation of eddy-driven recirculations in an idealized western boundary current	Stuart Bishop
13:40	A backscatter-only parameterization for mesoscale eddies	Elizabeth Yankovsky
14:00	Scale-dependent vertical structure of mesoscale eddy kinetic energy in an idealized isopycnal ocean model	Wenda Zhang
14:20	Data-driven stochastic parameterizations of subgrid mesoscale eddies in an idealized ocean model	Pavel Perezhogin
14:40	*Discussion - Eddy parameterization and wrap-up*	
15:00	*ADJOURN*	

Rules of the Road

- Please keep your microphone muted and camera off during presentations.

- If you have an urgent question of clarification during a presentation, please use the chat.

- During the Q&A after each talk or during Discussion periods, feel free to turn on your camera. To ask a question use the raise hand function (under Reactions icon). A moderator will call on you to unmute when it is your turn.

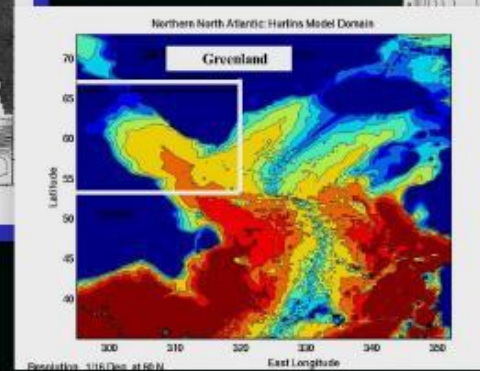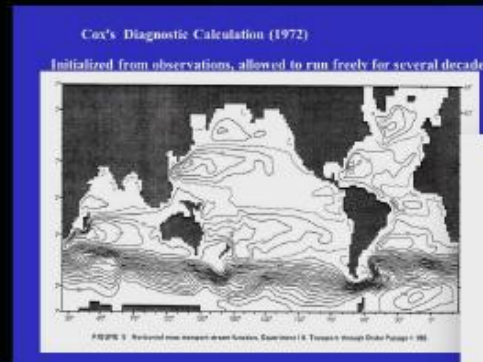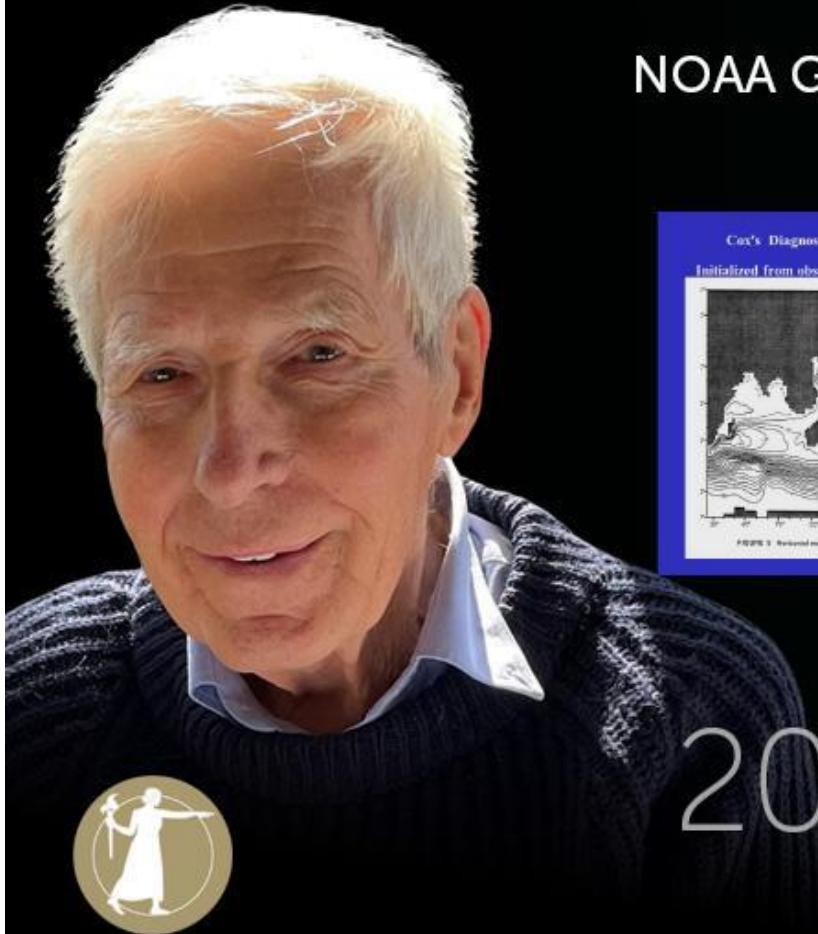- Please send your presentation to fair@ucar.edu and/or bryan@ucar.edu well before your talk.

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Congratulations Kirk!

Kirk Bryan Jr.

NOAA Geophysical Fluid Dynamics Laboratory, Princeton University
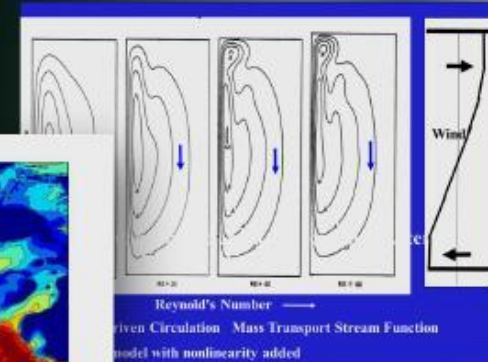
2023 Alexander Agassiz Medal

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