

CESM OCEAN MODEL WORKING GROUP MEETING

Joint with
CESM LAND ICE WORKING GROUP
and
OCEAN TRANSPORT and EDDY ENERGY CPT

02 - 04 FEBRUARY 2021

Tuesday, February 02

* All times are MST

Time	Topic	Speakers
9:25	Welcome and logistics	F. Bryan
9:30	Introduction to the CPT	L. Zanna
9:40	Evolving Plans for MOM6 Development	R. Hallberg
10:05	AMOC in MOM6/HYCOM + FSU MOM6 Plans	E. Chassignet
10:30	An early look at a regional MOM6 pan-Arctic domain	K. Hedstrom
10:55	BREAK	
11:00	Joint with CGD Weekly Seminar: Enabling Intelligent parameterizations through distributed, online inference with SmartSim: A case study simulating ocean eddy kinetic energy in MOM6	S. Bachman
12:00	BREAK	
13:00	The Outsized Role of the Labrador Sea in Low Frequency AMOC Variability	S. Yeager
13:25	The impact of topography and eddy parameterization on the simulated Southern Ocean circulation response to changes in surface wind stress	H. Kong
13:50	Role of ocean variability in thermodynamic air-sea interactions resolved by multi-century climate model simulations	L. Laurindo
14:15	Diagnostic Tools for Spatiotemporal Water Mass Transformation Analysis	J. Tesdal
14:40	Surface water mass transformation: the role of eddies revisited	J. Small
15:05	ADJOURN	

Wednesday, February 03 (morning)

Joint Session on Ocean-Ice Sheet Interaction with Land Ice Working Group

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Time	Topic	Speakers
8:15	Virtual Coffee and welcome	W. Lipscomb
8:30	Very preliminary analysis of the Marine Ice Sheet-Ocean Model Intercomparison Project first phase (MISOMIP1)	X. Asay-Davis
8:45	Plans for the 2 nd Marine Ice Sheet Ocean Model Intercomparison Project (MISOMIP2)	N. Jourdain
9:00	The impacts of increased atmospheric CO ₂ on the 3-D structure of the AMOC in the North Atlantic Ocean	S. Georgiou
9:15	The effects of ice-shelf melt on the biological productivity of Antarctic coastal polynyas	D. Goldberg
9:30	Impact of improved bedrock geometry on Antarctic vulnerability to regional ice shelf collapse	D. Martin
9:45	ISMIP6-based projections of ocean-forced Antarctic ice loss	W. Lipscomb
10:00	BREAK	
10:30	Marine ice sheet experiments with CISM	G. Leguy
10:45	Antarctic ice sheet coupling in CESM	W. Sacks
11:00	An Update on the CESM MOM6 Effort	G. Marques
11:15	AR6: The Reckoning	B. Fox-Kemper
11:30	Discussion	
12:00	ADJOURN	

Wednesday, February 03 (afternoon)

* All times are MST

Time	Topic	Speakers
13:00	OMWG Discussion	
13:20	Towards a potential vorticity based mesoscale closure scheme	T. Uchida
13:45	Dynamical Effects of a Stochastic Parameterization to Account for Uncertainties in the Horizontal Density Gradient in a Coarse-Resolution Ocean Model (MOM6)	J. Kenigson
14:10	Discovering equations for eddy parametrizations from data	L. Zanna
14:35	Stochastic Deep Learning Parameterization of Ocean Momentum Forcing	A. Guillamin
15:00	Neverland 2: the idealized component of the Eddy Climate Process Team	A. Adcroft
15:25	ADJOURN	

Thursday, February 04

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Time	Topic	Speakers
9:30	Effects of eddy representation on vertical structure and energetics	E. Yankovsky
9:55	Diagnosing and parameterizing the energy budget of ocean mesoscale eddies in an idealized model	N. Loose
10:20	Characterizing the Oceanic Mesoscale Flow by Coarse-graining	M. Buzzicotti
10:45	Seasonality and Scale-dependence of Oceanic Energy Transfer	B. Storer
11:10	Scale-Aware Eddy Kinetic Energy From Along-Track Satellite Observations of Sea Surface Height	J. Steinberg
11:35	Mesoscale air-sea interaction and the eddy potential energy budget, is it important?	Y. Guo
12:00	BREAK	
13:00	Vertical structure of tracer diffusivity in an idealized basin circulation model	W. Zhang
13:25	Discrete Normal Mode Decompositions in Quasigeostrophic Theory	H. Yassin
13:50	Modifying the Mixed Layer Eddies Parameterization: Frontal Width Determined by Boundary Layer Turbulence	A. Bodner
14:15	Vertical fluxes conditioned on vorticity and strain reveal submesoscale ventilation	D. Balwada
14:40	An update on the Langmuir mixing parameterization in CESM2.2	Q. Li
15:05	Off-equatorial turbulence forced by Tropical Instability Waves in the Pacific	D. Cherian
15:30	ADJOURN	