

CESM CLIMATE VARIABILITY AND CHANGE WINTER WORKING GROUP MEETING February 21-22 2023

Tuesday, February 21

** All times are MST; **Speakers:** please leave 5 min at the end of your slot for questions.*

Time	Topic	Speakers
Mesa Lab Main Seminar Room & Hybrid		
Chair: Isla Simpson		
8:00	CVCWG update	Isla Simpson, Aixue Hu, Sarah Larson
8:15	An Evaluation of the Seasonal Caribbean Hydroclimate under Low and High-Resolution CESM and other CMIP6 Mode	Carlos Martinez
8:30	Resolving weather fronts increases the large-scale circulation response to Gulf Stream SST anomalies	Robb Jnglin Willis
8:45	Revisiting the Relationship Between the North Pacific High and Upwelling Winds Along the Coast of North America in the Present and Future climate	Hui Ding
9:00	Exploring the non-stationarity of coastal sea level probability distributions	Fabrizio Falasca
9:15	Estimating Amplification of Freshwater Fluxes using Linear Response	Aurora Basinski
9:30	An estimate of Antarctic Bottom Water variability from GRACE satellite gravity data	Jemma Jeffree
9:45	Break	
Chair: Isla Simpson		
10:00	Extreme fire weather events under climate variability and change	Danielle Touma
10:15	Two perspectives on amplified warming over tropical land	Suqin Duan
10:30	Projecting climate responses using an AI Implementation of the Fluctuation-Dissipation Theorem trained on CESM2 Large Ensemble data	Haruki Hirasawa
10:45	Break	
11:00	Seminar: Assessing Decadal Variability of Subseasonal Predictability using Explainable Machine Learning	Marybeth Arcodia
12:00	Lunch	
Chair: Sarah Larson (Remote)/Aixue Hu (In Person)		
1:00	Understanding the Drivers of Atlantic Multidecadal Variability Using a Stochastic Model Hierarchy	Glenn Liu
1:15	A Hierarchy of Global Ocean Models Coupled to CESM1	Tien-Yiao Hsu
1:30	A North Atlantic warming hole without ocean circulation	Chengfei He

1:45	North Pacific Climate Variability in a New CESM1 Ocean Model Hierarchy	Tyler Fenske
2:00	CESM Pencil Ocean Model	Young-Oh Kwon
2:15	Changes to wind driven ocean circulation amplify externally forced warming over the historical period in CESM2	Kay McMonigal
2:30	Discussion	
2:45	Break	
Chair: Aixue Hu		
3:00	Subsurface Ocean Temperature Responses to the Anthropogenic Aerosol Forcing in the North Pacific	Jia-Rui Shi
3:15	The oceans are warming!	Kevin Trenberth
3:30	Southern Ocean cooling in response to greenhouse forcing in high resolution simulations performed with CESM	Pedro DiNezio
3:45	Causes and Consequences of Enhanced Historical Indian Ocean Warming	Shineng Hu
4:00	The role of the 2019-2020 Australian bushfire smoke in the current multi-year La Niña and phase of the Interdecadal Pacific Oscillation	Jerry Meehl
4:15	Future changes in marine heat and cold waves: Insights from Model Large Ensembles	Clara Deser

Wednesday, February 22

** All times are MST; **Speakers:** please prepare a 10 minute talk and leave 5 min at the end of your slot for questions.*

Time	Topic	Speakers
Joint ESPWG/CVCWG Session		
	Mechanisms of Multi-year ENSO predictability	Nathan Lenssen
	Assessing future ENSO predictability using perfect model analogs in large ensembles	Dillon Amaya
	Characterizing Nonlinearities in CESM2 ENSO Dynamics using Machine Learning Technique	Jakob Scholer
	ENSO forecast skill in a changing climate	Jiale Lou