NCAR UCAR | COMMUNITY EARTH SYSTEM MODEL CESM ™

2023 CESM Workshop

ATMOSPHERIC MODEL WORKING GROUP MEETING

June 2023

Tuesday / June 13, 2023

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

Time	Topic	Speakers
Overview: ***Center Green Auditorium / Center Bay*** **YouTube Streaming: https://youtube.com/live/UyCbPL4Si7Q?feature=share**		
8:30-8:35	**Welcome and logistics**	
8:35-8:45	AMWG Update	J. Bacmeister
8:45-9:00	Update on the System for Integrated Modeling of the Atmosphere (SIMA)	M. Barth
9:00-9:15	From LES to CLUBB+MF: Recent results from the Unified EDMF CPT Project	J. Teixeira
9:15-9:30	An Updated CLUBB PDF Closure Scheme to Improve Low Cloud Simulation in CAM6	M. Wang
9:30-9:45	The Sensitivity of the Global Mean Climate to Parameterized Momentum Flux in an Experimental Version of CAM6-CLUBB	K. Nardi
9:45-10:00	Understanding the impacts of vertical wind shear on convective development	Y. Tian
10:00-10:15	BREAK	
10:15-10:30		
10:30-10:45	Effective Radiative Forcing of Marine Cloud Brightening and Its Climate Impacts	H. Hirasawa
10:45-11:00	Cloud feedbacks in CESM2	M. Duffy
11:00-11:15	Efficiency of marine cloud brightening solar climate intervention simulated by CESM2	J. Chen
11:15-11:30	Spectral Radiation Diagnostics for Model-Satellite Comparisons	J. Shaw
11:30-11:45	Limitations of Machine Learning Approaches for Emulating Simplified Physical Processes in CAM6	G. Limon
11:45-12:00	Characteristics of the stratospheric tropical circulation in DoE's Energy Exascale Earth System Model E3SMv2	C. Jablonowski
12:00-12:15	Using the CAM hierarchy to advance understanding of climate change impacts on hurricanes	K. Reed

POSTERS: Sessions on Monday June 12, 2023, 11:30AM-12:30PM and 6:00-7:30PM

	Impact of regional carbonaceous aerosols on the global monsoon area and precipitation	A. Acharya
	Evaluation of VR-CESM historical simulations with different resolutions over Euro-Mediterranean Region	B. Boza Karul
	Improving the representation of shallow cumulus convection with the simplified-higher-order-closure-mass-flux (SHOC+MF) approach	M. Chinita
	Exploring Slab-Ocean Models and Ocean Heat Fluxes for Insights in Assessing Climate Sensitivity in CESM	C. Hannay
	Simulating the Climate Forcing of Volcanic Aerosols With a Simplified Interactive Model	J. Hollowed
	A conservative deep-atmosphere configuration for the HOMME dynamical core	O. Hughes
	Response of moist heat stress to changes in surface evaporative resistance	Q. Kong
	Reducing low-cloud bias in the GEOS-5 model: role of large-scale controls and ocean-atmosphere coupling	M. Kurowski
	Computational domain size effects on large-eddy simulations of precipitating shallow cumulus convection	O. Lamaakel
	Orographic cirrus and its radiative forcing in NCAR CAM6	K. Lyu
	The texture of atmospheric humidity: Near-surface turbulence in precipitating cumulus convection	G. Matheou
	Southern Ocean Boundary Layer Cloud Condensation Nuclei (CCN): CAM6 biases against field campaign observations	Q. Niu
	CONUS-404: High resolution dynamic downscaling over CONUS	R. Rasmussen
	The Impacts of Mediterranean SST (MedSST)-Nudging on the Performance of Community Earth System Model (CESM) in Representing the Euro-Mediterranean Climate	E. Toker