CESM Atmosphere Model Working Group Meeting 27 February – 1 March 2017 Center Green – North and Center Bays National Center for Atmospheric Research – Boulder, Colorado

MONDAY, 27 February:

12:00 Lunch (on your own)

Introduction, CESM2, and Physical Parameterization Developments, and ACME updates

- 1:00 Introduction and overview of recent and proposed developments
- 1:20 An update on the coupled simulation of CESM2
- 1:40 Climate forcings and feedbacks in CESM2
- 2:00 Microphysics development (MG3)
- 2:20 CAM-CLUBB-SILHS-MG2: Sensitivity to horizontal grid spacing
- 2:40 New approach to organized tropical convection parameterization for CAM
- 3:00 Break
- 3:30 Strategies for cumulus parameterization for CESM3 and beyond
- 3:50 Progress on ACME model development
- 4:10 Water conservation in CAM5 and the ACME atmosphere model
- 4:30 The CESM and ACME clouds may not be too susceptible to aerosol changes
- 4:50 Advances in the application of parallel split physics / dynamics coupling in atmospheric models
- 5:10 Discussion
- 5:30 Adjourn

TUESDAY, 28 February:

8:30 Coffee

Dynamics, Parameterization and Modeling Frameworks

9:00	Enforcing conservation of atmospheric axial angular momentum in CAM FV:	Thomas Toniazzo			
	Method and results in CESM2 and NorESM2 simulations				
9:20	Experiments preparing for a coarse resolution NorESM2	Lise Graff			
9:40	Incorporating realistic surface longwave spectral emissivity into the CESM Model:	Xianglei Huang			
	Impact on simulated climate and the potential ice-emissivity feedback mechanism				
10:00	Continental Breakfast				
10:30	Ultraparameterization: Global turbulence-resolving simulation for explicit simulation of cloud-topped boundary layers using SPCAM5	Chris Bretherton			
10:50	Potential radiative forcing error from the cirrus cloud pre-existing ice assumption	David Mitchell			
11:10	Variable-resolution updates: CAM-SE and CAM-MPAS	Colin Zarzycki			
11:30	Lessons learned from the Dynamical Core Model Intercomparison Project (DCMIP-2016)	Christiane Jablonowski			
11:50	An overview of the simplified CESM2 model configurations	Peter Lauritzen			
12:10	Lunch (on your own)				
Application Studies					
1:20	A coupled model hindcast framework for cloud-associated processes evaluation	Hsi-Yen Ma			
1:40	Tracing the origins of tropical SST biases in CESM through a hindcast approach	Angela Siongco			
2:00	Sensitivity of the Pacific cold tongue and double-ITCZ biases to convective parameterization in CESM1	Matthew Woelfle			

2:20 Intermittency of precipitation using hourly data in CESM and the real world

- Rich Neale Cecile Hannay Andrew Gettelman Trude Eidhammer Vince Larson Mitch Moncrieff
- Leo Donner Peter Caldwell Kai Zhang Phil Rasch Aaron Donahue

Kevin Trenberth

2:40	Why do climate models drizzle too much and what impact does this have	Chris Te
3:00	Break	
3:30	Modeling summertime Arctic-midlatitude linkages caused by transport along moist	Paul Kus
	isentropes	
3:50	An atmosphere with no dust: Implications for hurricane activity	Kevin R

- 4:10 The Madden Julian Oscillation in CAM: Coupling and improvements
- 4:30 Discussion
- 5:00 Adjourn

WEDNESDAY, 1 March

Coffee 8:30

	Joint Session of Atmosphere Model, Chemistry-Cimate and Whole Atmosphere	Working Groups
9:00	Summary of the WACCM / CAM / Chemistry modeling suite	Simone Tilmes
9:20	CESM2 release of CAM-SE	Peter Lauritzen
9:40	Surface drag sensitivities in CESM2	Julio Bacmeister
10:00	Continental Breakfast	
10:30	Ice microphysical changes in WACCM and CAM	Chuck Bardeen
10:50	Effect of nitrate aerosols on indirect forcing as modeled by CAM in MOSAIC	Zheng Lu
11:10	Volcanic forcing in CESM2	Mike Mills
11:30	Discussion	
12:00	Adjourn and Lunch (on your own)	

- 1:30 CESM Joint Session (all working groups)
- 5:00 Working Group Information Exchange

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eed **Rich Neale**