

CESM Chemistry Climate Working Group Meeting

20 – 21 February 2019

Mesa Lab - National Center for Atmospheric Research – Boulder, Colorado

WEDNESDAY, 20 February:

Joint Session of Whole Atmosphere and Chemistry-Climate Working Groups Mesa Lab – **Damon Room**

Webcast Instructions:

AUDIO: Dial this access number: 1-866-740-1260 – Enter access code **4971358**
VIDEO: Go to www.readytalk.com; under “join a meeting” enter access code **4971358**

8:30	Coffee	
9:00	Status of chemistry and aerosols in WACCM and CAM-chem	Louisa Emmons
9:20	Reaching exposure-relevant scales: The implementation of full chemistry into regionally refined CAM-chem	Forrest Lacey
9:40	Examining the impact of anthropogenic aerosols emitted by China on global climate using CESM2 coupled with MOSAIC aerosol module	Zheng Lu
10:00	Update on the Brewer-Dobson Circulation variability driven by the QBO, including results from CESM-2	Jessica Neu
10:20	Break	
10:40	Stratospheric volcanic aerosol simulations using SD-WACCM/CARMA model	Yunqian Zhu
11:00	Stratospheric aerosols and volcanic eruptions in WACCM6	Mike Mills
11:20	New investigation into human and environmental impacts from nuclear war using WACCM	Chuck Bardeen
11:40	Discussion	
12:00	<i>Lunch (on your own)</i>	

Joint Session of Atmosphere Model, Chemistry-Climate, and Whole Atmosphere Working Groups – Mesa Lab, **Main Seminar Room**

▶▶▶▶ Webcast: www.fin.ucar.edu/it/mms/ml-live.htm ◀◀◀◀

1:00	Introduction to WACCM6	Andrew Gettelman
1:20	Climate impacts of secondary organic aerosols (SOA)	Simone Tilmes
1:40	QBO in 110L WACCM: the importance of vertical resolution	Rolando Garcia
2:00	An improved aerosol wet processes parameterization coupled with an explicit convective cloud scheme in CAM6	Yunpeng Shan
2:20	Efficient in-cloud removal of aerosols by deep convection	Pengfei Yu
2:40	Spectrum: an underutilized dimension in model validations and diagnostics	Xianglei Huang
3:00	<i>Break</i>	
3:30	Evaluating and improving parameterization of ice fall velocity in convective clouds: Using the NCAR CAM-SCM with TWP-ICE data	Lin Lin
3:50	Implementing marine organic aerosol and ice nucleation in CESM2: Description evaluation, and impacts on clouds	Xi Zhao
4:10	Competing roles of the fast and slow response in the total coupled West African precipitation response to anthropogenic aerosol forcing	Paul Kushner / Haruki Hirasawa
4:30	Discussion: Promising parameterizations? Critical biases to get to the bottom of?	
5:30	<i>Reception (Damon Room)</i>	

THURSDAY, 21 February – Chemistry Climate Working Group Session - **Chapman Room**

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9:00	Status of CAM-Chem and discussion of development plans	Louisa Emmons
9:20	TOAST: Tropospheric Ozone Attribution of Sources in CAM4-chem	Tim Butler
9:40	Uncertainties in isoprene and terpene chemistry impact on simulated surface ozone in the United States	Becky Schwantes
10:00	A simplified parameterization of isoprene-epoxydiol-derived secondary organic aerosol (IEPOX – SOA) for global chemistry and climate models	Duseong Jo
10:20	Integration of GEOS-Chem as a chemistry option in CESM	Seb Eastham
10:40	<i>Break</i>	
11:00	Coupling the land and atmospheric chemistry through ozone dry deposition in a global chemistry-climate model, and implications for ozone pollution	Olivia Clifton
11:20	Ocean biogeochemistry control on atmospheric chemistry	Siyuan Wang
11:40	Modeling and tagging CO and CO ₂ in CAM-chem: A case study during the KORUS-AQ campaign	Wenfu Tang
12:00	Specified dynamics simulations at different vertical resolutions	Ben Gaubert
12:20	Discussion of development plans	
12:30	<i>Adjourn</i>	