

CESM Atmosphere Model Working Group Meeting
8 – 10 February 2016
Mesa Lab, Main Seminar Room
National Center for Atmospheric Research – Boulder, Colorado

>>>> *Webcast: www.fin.ucar.edu/it/mms/ml-live.htm* <<<<<

MONDAY, 8 February:

12:00 *Lunch (on your own)*

Introduction, CESM2, and Physical Parameterization Development

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| 1:00 | Introduction and overview of recent and proposed developments | Rich Neale |
| 1:20 | The path to CESM2: Coupled-climate experiments | Cecile Hannay |
| 1:40 | Current state of cloud microphysics, forcing and feedbacks in CAM6 and CESM2 | Andrew Gettelman |
| 2:00 | Recent developments and experiments with CAM-CLUBB | Pete Bogenschutz |
| 2:20 | An updated variant of CAM with unified clouds and unified microphysics | Eric Raut |
| 2:40 | <i>Break</i> | |
| 3:10 | Direct comparisons of ice cloud macro- and microphysical properties simulated by the Community Atmosphere Model CAM5.4 with HIPPO aircraft observations | Xiaohong Liu |
| 3:30 | Progress on CAM5 microphysics using self-consistent ice particle mass- and area-dimension expressions | Ehsan Erfani |
| 3:50 | A novel cirrus cloud retrieval method for GCM high cloud validations | David Mitchell |
| 4:10 | Further development of orographic drag parameterizations for CAM | Julio Bacmeister |
| 4:30 | Relationships among top-of-atmosphere radiation and atmospheric state variables in observations and CESM | Kevin Trenberth |
| 4:50 | Adaptive mesh refinement | Bill Collins |
| 5:10 | Discussion | |
| 5:30 | <i>Adjourn</i> | |

TUESDAY, 9 February:

Parameterization and Modeling Frameworks

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| 8:30 | <i>Coffee</i> | |
| 9:00 | Recent developments in HOMME dynamical core | Ram Nair |
| 9:20 | Current status of CAM-MPAS | Sang-Hun Park |
| 9:40 | Dissipation of angular momentum in CAM FV | Thomas Toniazzo |
| 10:00 | Continued efforts in reduced complexity modeling with CAM | Kevin Reed |
| 10:20 | Moist idealized CAM assessments with simplified physics | Christiane Jablonowski |
| 10:40 | <i>Continental Breakfast</i> | |
| 11:10 | Development and scientific simulations of the CAM aqua-planet configuration | Jim Benedict |
| 11:30 | Improving throughput of CAM-SE by parallel splitting atmospheric physics and dynamics | Peter Caldwell |
| 11:50 | A new CAM5 ensemble assimilation for forcing other CESM components and for model evaluation | Kevin Raeder |
| 12:10 | <i>Lunch (on your own)</i> | |
| <u>Hydroclimate Applications</u> | | |
| 1:30 | Preliminary changes in high-resolution tropical cyclone climatology in CAM5.5 | Colin Zarzycki |
| 1:50 | Understanding hydroclimatic changes in western USA mountain ranges using the variable-resolution CESM (VR-CESM) multiscale method | Alan Rhoades |
| 2:10 | CESM variable-resolution modeling of impacts of absorbing aerosol deposition on snowpack and hydrologic cycle in the Rocky Mountain region | Chenglai Wu |

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| 2:30 | Examining hydrologic model biases in CAM5 using stable water isotopes | Jesse Nusbaumer |
| 2:50 | <i>Break</i> | |
| 3:20 | A multi-year hindcast experiment for cloud and precipitation studies | Hsi-Yen Ma |
| 3:40 | Assessments of marine boundary layer cloud simulations in CAM5 with CLUBB and MG2 using ground-based ARM observations in the Azores | Xue Zheng |
| 4:00 | Options for NorESM2 for CMIP6 | Trond Iversen |
| 4:20 | Discussion | |
| 5:00 | <i>Adjourn</i> | |

WEDNESDAY, 10 February

MEETING MOVES TO FOOTHILLS LABORATORY


Webcast: www.fin.ucar.edu/it/mms/fl-live.htm


Joint Session of Atmosphere Model, Chemistry-Cimate and Whole Atmosphere Working Groups

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| 8:30 | <i>Coffee</i> | |
| 9:00 | Discussion of joint issues | |
| 9:20 | CAM dynamics update | Peter Lauritzen |
| 9:40 | New CAM-chem developments, prognostic fire injection and SOA schemes | L. Emmons / S. Tilmes |
| 10:00 | New prescribed and prognostic volcanic and stratospheric aerosol options in CESM | Mike Mills |
| 10:20 | <i>Continental Breakfast</i> | |
| 10:50 | Nudging timescales and vertical transport in CAMChem-SD and WACCM-SD | Jessica Neu |
| 11:10 | Comparing QBO and ENSO impacts on stratospheric transport in WACCM-SD and -FR | Sasha Glanville |
| 11:40 | Discussion | |
| 12:00 | <i>Adjourn and Lunch (on your own)</i> | |

MEETING MOVES TO CENTER GREEN CAMPUS FOR AFTERNOON JOINT SESSION

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| 1:20 | Bus departs Foothills Laboratory for Center Green Campus |
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