CESM Atmosphere Model Working Group Meeting
11 – 13 February 2013
Mesa Lab, Main Seminar Room
National Center for Atmospheric Research – Boulder, Colorado

MONDAY, 11 February:

CAM Simulations and Developments

9:00 Co-Chairs Welcome
9:05 Cecile Hannay – Update on CAM and CESM simulations
9:25 Julio Bacmeister – Update on CAM high-resolution simulations
9:40 Kate Evans – Update on the DOE lab consortium coupled high resolution modeling project
9:55 Peter Bogenschutz – Progress and update on CAM-CLUBB
10:10 Minghuai Wang – SPCAM5 with CLUBB: Progress and remaining issues
10:50 Sungsu Park – Scale-adaptive physics parameterization with inter-process consistency
11:05 Robert Pincus – Coupling strategies and paths to accuracy for radiation in global models
11:20 Mark Taylor – CAM-SE development and performance update
11:35 Bill Skamarock / Michael Duda – MPAS-A - a nonhydrostatic CAM core
11:50 Sara Rauscher – A first look at multi-resolution AMIP simulations with CAM-MPAS

Joint AMWG/WAWG Session

1:15 Co-Chairs Welcome and Update
1:30 Mike Mills – Navigating CAM5 Physics in WACCM
1:45 Christoph Erath – New Finite Volume semi-Lagrangian based tracer transport schemes for the Community Atmospheric Model (CAM-SE) - Performance and scalability with a focus on Yellowstone
2:00 Peter Caldwell – Impact of numeric choices on CAM5 climate
2:15 Charles Jackson – Metrics for model selection and uncertainty quantification
2:30 Steve Ghan – Nudging as a testbed for atmospheric physics
3:15 Trond Iversen – About NorESM, a model based on CCSM4 but with significant amendments
3:30 Jason English – Microphysical simulations of large volcanic eruptions: Pinatubo and Toba
3:45 Juan Fontela – Solar spectral irradiance effects on tropospheric regional climate? WACCM4 preliminary results, ENSO, and volcano issues
4:00 Dan Marsh – Downward coupling
4:15 Curt Covey – Atmospheric tides in WACCM and the latest (CMIP5) generation of climate GCMs

TUESDAY, 12 February:

Joint AMWG/CCWG Session

9:00 Peter Lauritzen – CSLAM and tracer advection
9:15 Phil Rasch – A "final" version of prescribed Aerosols for CAM5
9:30 Xiaohong Liu – Development of a 4 mode aerosol package for CAM5
9:45 Joyce Penner – Aqueous phase formation mechanism for organic aerosols in CAM
10:00 Po-Lun Ma / Cecile Hannay – New aerosol diagnostics for CAM
10:30 Andrew Gettelman – Aerosol-cloud interactions and uncertainties in CAM
10:45 Chris Jones – Aerosol indirect effects in PBL Clouds: SCAM5 vs. LES
11:00 Cathy Chung – Aerosol sectional model at LLNL
11:15 Scott Elliott – Ocean sources of aerosols
11:30 Steve Ghan – Aerosol branch

Joint AMWG/CCWG/ PCWG/WAWG Session

1:15 AMWG co-chair update
1:30 PCWG co-chair update
1:45 WAWG co-chair update
2:00 CCWG co-chair update
2:15 Mariana Vertenstein – Yellowstone update
2:30 Lorenzo Polvani – Stratospheric ozone and Antarctic sea ice trends

AMWG Physical Parameterization Session

3:30 Brian Mapes – Can we interpret convective rain differences in convectively satisfying terms
3:45 Steve Klein – Perturbed parameter simulations of the MJO with CAM5
4:00 His-Yen Ma – Evaluation of a convective cloud microphysics scheme under the CAPT framework
4:15 Mikhail Ovchinnikov – Accounting for covariances among microphysical variables: physical basis and parameterization approaches
4:30 Xin Xie / Minghua Zhang – Subgrid-scale clouds and precipitation for CAM
4:45 Hui Wan – Cloud water budgets in CAM5 and its sensitivity to model numeric

WEDNESDAY, 13 February – DAMON ROOM

Joint AMWG/PCWG Session

9:00 Melissa Burt – Arctic Clouds in Superparamterized CESM
9:15 Xiaohong Liu – Formulation of ice nucleation parameterizations in mixed-phase clouds linking to aerosols in CAM5
9:30 Jason English – Impacts of CAM5 Cloud Microphysics on Arctic clouds and radiation
9:45 Neil Barton – An Evaluation of Arctic Surface Temperature in Hind-cast and AMIP runs in CAM4 and CAM5
10:00 Qiong Yang/Sarah Doherty/Cecilia Bitz – Climate response and radiative forcing for each aerosol species in CESM prescribed from NCAR and Harvard concentrations
10:15 Jessica Liptak – The Winter Sea Ice-Atmosphere Feedback over the Barents Sea

Radiation and Clouds

10:50 Dave Mitchell – Improving the Ice Optics in CAM5: Treatment of the asymmetry parameter
11:05 Zhang Kai – Sub-grid vertical velocity in cirrus clouds and its impact on ice nucleation: evaluation of CAM5 against aircraft measurements and inter-comparison with ECHAM5-HAM2
11:20 Travis O'Brien – Observed Scaling in Clouds and Precipitation and Scale Incognizance in Regional to Global Atmospheric Models