

**Community Earth System Model (CESM) Tutorial 2017**  
**NCAR Mesa Lab, Boulder, CO**  
**August 14-18, 2017**

**Main Seminar Room – morning lectures & practical intro**  
**Damon Room / Library – afternoon practical labs**  
*Lectures will be 40 minutes long, 10 minutes for questions*

**Monday, August 14**

8:30-8:50 Welcome, Intro, Logistics ([Bailey](#), [Hurrell](#), [Brinkworth](#), [Ballard](#))  
8:50-9:50 Lecture 1: Introduction to the coupled system ([Lamarque](#))  
9:50-10:15 Break  
10:15-11:05 Lecture 2: Atmosphere Modeling I: Intro & Dynamics ([Lauritzen](#))  
11:05-11:35 Practical Session 1 Intro: Introduction to NCAR computing environment ([Kelly](#))  
11:35-1:00 Lunch (*on your own*)  
1:00-2:15 Practical Session 1 Intro: Run CESM ([Bertini](#))  
2:15-2:30 Break  
2:30-5:00 Practical Lab 1  
5:00-6:50 Reception: Mesa Lab Cafeteria (Ice breakers/divide into groups of interest)

**Tuesday, August 15**

8:30-9:20 Lecture 3: Atmosphere Modeling II: Physics ([Neale](#))  
9:20-9:50 Lecture 4: Atmosphere Modeling III: Chemistry, Aerosols ([Tilmes](#))  
9:50-10:10 Break  
10:10-10:40 Lecture 5: Atmos. Modeling IV: WACCM ([Mills](#))  
10:40-11:00 Break  
11:00-11:50 Lecture 6: Land Modeling I: Biogeophysics ([D Lawrence](#))  
11:50-1:30 Lunch (*on your own*)  
1:00-1:30 Specialized Talks 1: Stratospheric Aerosols and Chemistry ([Mills](#)), Simpler Models ([Simpson](#)), Convection and Land Use ([Tawfik](#))  
1:30-2:30 Practical Session 2 Intro: Run CESM: Simple Modifications ([Shields](#))  
2:30-2:40 Break  
2:40-5:00 Practical Lab 2

**Wednesday, August 16**

8:30-9:20 Lecture 6: Land Modeling II: Biogeochemistry: Ecosystem Modeling ([Fisher](#))  
9:20-9:35 Break  
9:35-10:25 Lecture 7: Ocean Modeling I ([Bates](#))  
10:25-10:40 Break  
10:40-12:00 Applications 1: IAM ([Ren](#)), Paleo ([Feng](#)), CAS ([McKinnon](#)), TSS ([Wieder](#))  
12:00-1:30 Lunch (*on your own*)  
1:00-1:30 Porting Session ([Edwards](#))  
1:30-2:30 Practical Session 3 Intro: Diagnostics and Output ([Phillips](#))  
2:30-2:40 Break  
2:40-5:00 Practical Lab 3

### Thursday, August 17

- 8:30-9:20 Lecture 8: Land Ice Modeling (Lipscomb)  
9:20-9:35 Break  
9:35-10:25 Lecture 9: Ocean Modeling II (Gent)  
10:25-10:40 Break  
10:40-11:30 Lecture 10: Ocean Biogeochemistry (Lindsay)  
11:35-12:05 Specialized Talks 2: Paleo/LME (Stevenson), Model Evaluation/Tuning (Hannay),  
Land Use/BGC (P Lawrence)  
12:05-1:30 Lunch  
12:30-1:30 Meet a CESM Scientist (Trenberth, Gent, Otto-Bliesner, Bachman, Tawfik, D  
Lawrence, Raphael)  
1:30-2:30 Practical Session 4 Intro: Namelist and Code Modifications (Hannay)  
2:30-2:40 Break  
2:40-5:00 Practical Lab 4

### Friday, August 18

- 8:30-9:20 Lecture 11: Sea Ice Modeling (DuVivier)  
9:20-9:35 Break  
9:35-10:35 Applications 2: Heat Extremes (Tebaldi)  
10:35-10:40 Closing Remarks, Quiz (Bailey, Hannay)  
10:40 Photo (*meet outside Main Seminar Room*)  
10:45-11:00 Break  
11:00-12:00 Practical Session 5 Intro:  
Breakouts: Ocean/Sea Ice/Land Ice (Altunas, Bailey, Sacks) Director's  
Land/BGC (Oleson, Kluzek, Lindsay) Chapman/Damon  
Atmosphere/Chem/WACCM (Coleman, Tilmes) Main Seminar Room  
12:00-1:00 Lunch  
1:00-3:30 Practical Lab 5