Community Earth System Model (CESM) Tutorial
NCAR Mesa Lab, Boulder, CO
5-9 August 2019
Main Seminar Room – morning lectures & practical intro
Damon Room / Library – afternoon practical labs

Monday, August 5
8:30-8:50 Welcome, Intro, Logistics (Oleson, Otto-Bliesner, Brinkworth, Ballard)
8:50-9:40 Lecture 1: Introduction to the coupled system (Danabasoglu)
9:40-9:55 Break
10:45-11:00 Break
11:00-11:50 Lecture 3: Atmosphere Modeling II: Physics (Neale)
11:50-1:10 Lunch (on your own)
1:10-1:30 Introduction to NCAR computing environment (Kelly)
1:30-2:40 Practical Intro 1: Run CESM (Thayer-Calder/Fischer)
2:40-5:00 Practical Lab 1 (snacks available in Damon room)
5:00-6:50 Reception: Mesa Lab Cafeteria (Ice breaker)

Tuesday, August 6
8:30-9:20 Lecture 4: Land Modeling I: Biogeophysics (D. Lawrence)
9:20-9:35 Break
9:35-10:00 Lecture 5a: Atmosphere Modeling III: WACCM (Mills)
10:00-10:25 Lecture 5b: Atmosphere Modeling IV: Chemistry, Aerosols (Emmons)
10:25-10:40 Break
10:40-11:40 Applications 1
- #1 Isotopes (Bette Otto-Bliesner)
- #2 Geoengineering (Yaga Richter)
- #3 Earth System Prediction (Liz Maroon)
11:40-1:30 Lunch (on your own)
1:00-1:30 Specialized Talk 1: Simpler Models (Simpson)
1:30-2:20 Practical Intro 2: Run CESM: Simple Modifications (Shields)
2:20-5:00 Practical Lab 2 (snacks available in Damon room)

Wednesday, August 7
8:30-9:20 Lecture 6: Land Modeling II: Biogeochemistry: Ecosystem Modeling (Lombardozzi)
9:20-9:35 Break
9:35-10:25 Lecture 7: Ocean Modeling I (Marques)
10:25-10:40 Break
10:40-11:40 Applications 2
- #1 Deep Time (Christine Shields)
- #2 Large Ensembles (Flavio Lehner)
- #3 Extremes in the Arctic (Laura Landrum)

11:40-1:30  Lunch (on your own)
1:00-1:30  Specialized Talk 2: Model development: Coupling/Tuning (Hannay)
1:30-2:20  Practical Intro 3: Diagnostics and Output (Phillips)
2:20-5:00  Practical Lab 3 (snacks available in Damon room)

Thursday, August 8
8:30-9:20  Lecture 8: Ocean Modeling II (Gent)
9:20-9:35  Break
9:35-10:25  Lecture 9: Ocean Biogeochemistry (Lindsay)
10:25-10:40  Break
10:40-11:30  Lecture 10: Sea Ice Modeling (DuVivier)
11:30-1:30  Lunch (on your own)
11:45-12:45  Meet a CESM Scientist (Danabasoglu, Lombardozzi, Wieder, Kay, Neale, Otto-Bliesner, DuVivier)
1:00-1:30  Specialized Talk 3: Porting Session (Edwards)
1:30-2:20  Practical Intro 4: Namelist and Code Modifications (Hannay)
2:20-5:00  Practical Lab 4 (snacks available in Damon room)

Friday, August 9
8:30-9:20  Lecture 11: Land Ice Modeling (Lipscomb)
9:20-9:35  Break
9:35-10:25  Applications 3: Does the Atlantic force the Pacific or does the Pacific force the Atlantic? (Meehl)
10:25-10:30  Closing Remarks (Oleson)
10:30  Photo (meet outside Main Seminar Room)
10:30-10:45  Break
10:45-11:35  Practical Intro 5:
  Breakouts:
  Ocean/Sea Ice/Land Ice (Altuntas, Bailey/DuVivier, Thayer-Calder) Director's
  Land/BGC (Lawrence/Kluzek, Lindsay) Chapman
  Atm/Chem/WACCM (Coleman, Emmons, Mills) Main Seminar Room

11:35-12:30  Lunch (on your own)

12:30-3:00  Practical Lab 5

3:00  Adjourn