

CESM Joint Land Model and
Societal Dimensions Working Group Meeting
1 – 2 March 2017
Foothills and Center Green Campuses
National Center for Atmospheric Research – Boulder, Colorado

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

Wednesday, 1 March – FL2-1022

Joint Land Model, Biogeochemistry, and Societal Dimensions Working Groups

8:00 *Coffee*

CLM5 Updates

8:30	State of CLM	Dave Lawrence
9:00	Defining the CLM5 structure and parameters	Rosie Fisher
9:20	Lessons learned from the CLM5 parameter calibration adventure	Ben Sanderson

Agriculture and Land Use

9:40	Historical land use and land cover change in CLM5 for CMIP6	Peter Lawrence
10:00	Discussion	

10:10 *Continental Breakfast*

10:40	Crops in CLM5	Danica Lombardozzi
10:55	Irrigation and plant hydraulic stress updates	Sean Swenson
11:10	Spring wheat responses to elevated CO2 and interactions with irrigation and nitrogen fertilization in the Community Land Model: From version 4.5 to 5	Yaqiong Lu
11:25	Improving the maize growth processes in the CLM: Implementation and evaluation	K. Guan / B. Peng
11:45	Land cover uncertainty generates substantial uncertainty in earth system model carbon and climate projections	Alan DiVittorio
12:00	Quantifying impacts of land-use and land cover change in a changing climate at the regional scale using an integrated Earth system modeling approach	Maoyi Huang

12:15 *Lunch (on your own)*

**MEETING MOVES TO CENTER GREEN CAMPUS FOR
AFTERNOON JOINT SESSION**

**Please NOTE: Joint Land Model and Biogeochemistry Working Group meeting moves to
Center Green on Thursday, 2 March**

Joint Land Model and Biogeochemistry Working Groups

THURSDAY, 2 March – CENTER GREEN North and Center Bays

Webcast: <https://ucarconnect.ucar.edu/live?room=cg1aud>

8:00 Coffee

Joint Land Model and Biogeochemistry Working Groups

CLM5 Assessment

8:30	Carbon cycle in CLM5	Charlie Koven
8:50	Nitrogen cycle in CLM5	Will Wieder
9:10	Diurnal cycles in land carbon fluxes and imprint on atmospheric CO ₂	Gretchen Keppel-Aleks
9:25	ILAMB update	Nathan Collier

Carbon cycle

9:40	Challenging the CLM with observations from a network of flux towers in semi-arid ecosystems	Andy Fox
9:55	Towards a robust representation of nutrient control of the land carbon cycle: Formulation and numerics	Jinyun Tang
10:10	Continental breakfast	
10:40	Modeling nitrogen and phosphorus cycles and their impacts on the carbon cycle	Qing Zhu
10:55	Matrix tool to facilitate the diagnosis of global land carbon models	Y. Huang / C. Lu
11:10	Matrix approaches to global carbon cycle, nitrogen cycle, and their coupling	Yiqi Luo

Applications and project introductions

11:25	Snow cover response to temperature in observational and model ensembles	Paul Kushner
11:40	Comparison of Leaf Area Index interaction with interannual climate variation across CMIP5 models and observations	Gregory Quetin
11:55	Discussion	
12:15	Lunch (on your own)	
1:15	Forest response to rising CO ₂ drives zonally asymmetric rainfall change over tropical continents	Gabe Kooperman
1:30	Leaf structural acclimation amplifies simulated climate warming in response to elevated carbon dioxide	Marlies Kovenock
1:45	Tropical terrestrial productivity responses to Atlantic and Pacific teleconnections	Jessica Liptak
2:00	Assessing impacts of selective logging on water, energy, and carbon fluxes in Amazon forests using the Functionally Assembled Terrestrial Ecosystem Simulator (FATES)	Yi Xu
2:15	Harvesting more wood from less area: Simulating the intensification of forest management in the CLM	Quinn Thomas
2:30	Understanding the causes and implications of enhanced seasonal CO ₂ exchange in boreal and Arctic ecosystems	Brendan Rogers
2:45	Break	

Next generation CLM / CTSM

3:15	Multi-layer canopy	Gordon Bonan
3:35	FATES	C. Koven / R. Fisher
3:55	Idealized land modeling in CESM	Marysa Lague
4:15	Hillslope hydrology	Justin Perket
4:35	The Community Terrestrial Systems Model	Martyn Clark
4:55	Discussion of CTSM and CESM / CLM community needs	
5:30	Adjourn	
5:30	CU Bus pick-up	
6:30	Optional working group dinner	