

MultiSector Dynamics Community

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Welcome to the newsletter of the MultiSector Dynamics Community

Hello MultiSector Dynamics (MSD) Community!

This issue focuses on this year's AGU Meeting taking place December 1-17. Below you will find information about attending MSD sessions and presentations, as well as guidance on the different types of talks happening during this online meeting.

www.multisectordynamics.org

Guide to AGU 2020 sessions

We have developed two sessions guides to help our community navigate this year's AGU schedule:

1. A **detailed tabular guide** which can be downloaded through [this link](#). Clicking on any of the talks listed will take you to the talk's entry on the AGU Fall Meeting's Schedule page. The tabular summary of sessions is a very helpful one-stop source for details on timing, presenters, and titles.
2. A **graphical summary guide**, found on the next page, shows the big picture of MSD at AGU indicating all the sessions (co-)organized by our community of practice. Clicking on each session's number bubble (e.g., GC 064) will take you to the session's page on the AGU schedule.

Our MSD community is organizing a Town Hall and a Union Session on December 3 and 9, respectively:

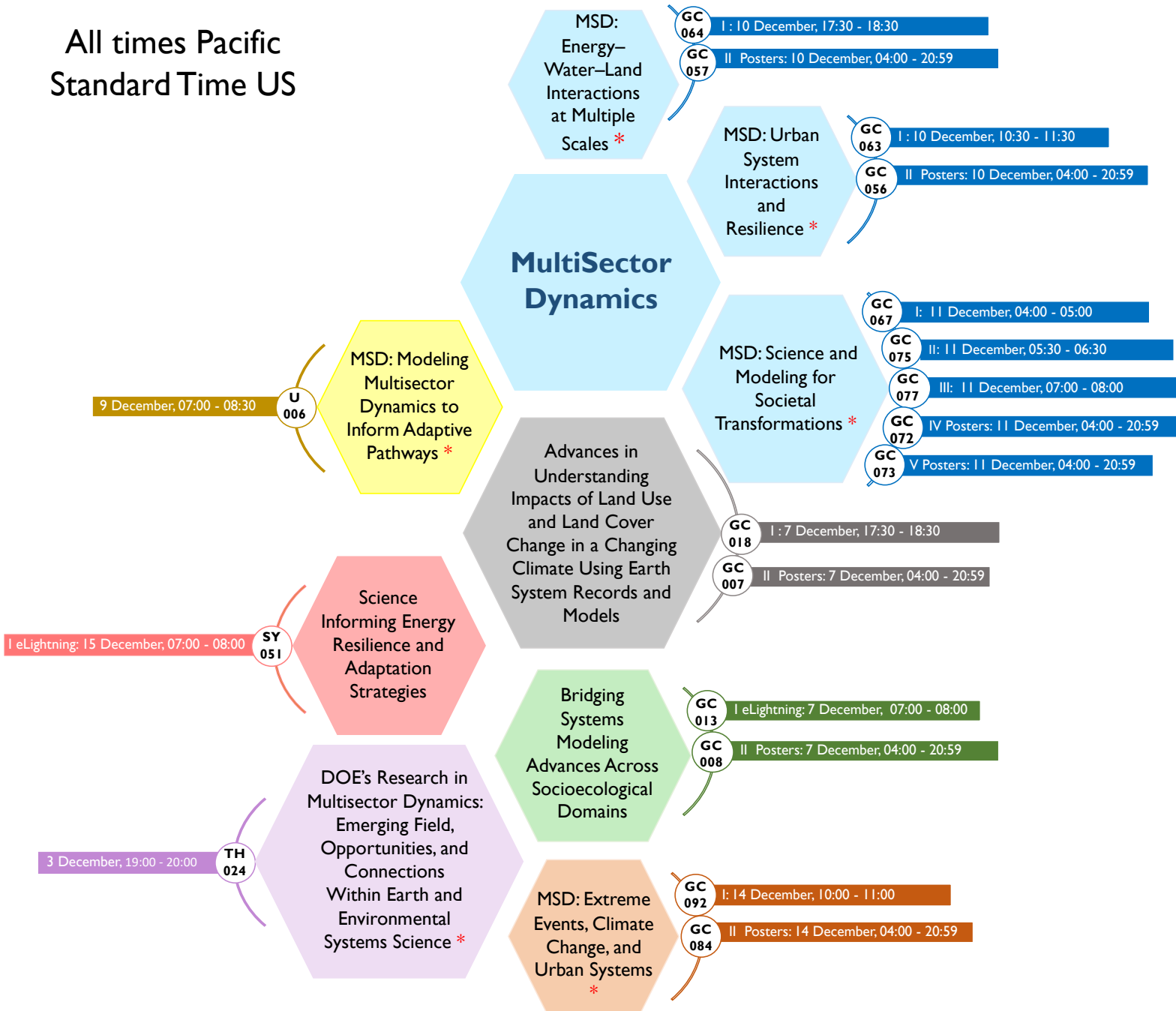
[TH024: DOE's Research in Multisector Dynamics: Emerging Field, Opportunities, and Connections Within Earth and Environmental Systems Science](#)

[U006: Modeling Multisector Dynamics to Inform Adaptive Pathways](#)

Town halls will be conducted live, will be one hour in length and will be hosted on Zoom Webinar. Union Sessions are multidisciplinary and feature topics with broad interest outside of a single section. They consist entirely of invited abstracts to highlight science in all other programs for the purpose of facilitating discussion with leading experts. Both will be recorded and available for on-demand viewing.

Our community will also be hosting several Oral, Poster and eLightning sessions, presented in detail in the following pages.

All times Pacific Standard Time US





Oral sessions

Oral sessions will be scheduled daily from 7-11 and 14-17 December.

An oral session is a one-hour live session featuring brief overview talks from presenters, followed by time for audience Q&A and discussion. The live Q&A sessions will be recorded and available for on-demand viewing.

Presenters have prepared 15-minute pre-recorded presentations which will be available to watch on-demand by the registered meeting attendees prior to the live Q&A session, starting on December 1st. Pre-recorded presentations will **not be** shown during the live sessions.

Each presenter may also prepare one or two highlight/overview slides to be presented during the one-hour oral session at the scheduled date and time. Each presenter will give a brief overview of their abstract using the submitted slides; the chairs will then moderate a Q&A session with the presenters and registered meeting attendees.

There are seven Multisector Dynamics Oral Sessions happening this year (*designate core CoP organized sessions):

[GC018: Advances in Understanding Impacts of Land Use and Land Cover Change in a Changing Climate Using Earth System Records and Models I](#)

[GC063: Multisector Dynamics: Urban System Interactions and Resilience I](#)

[GC064: Multisector Dynamics: Energy–Water–Land Interactions at Multiple Scales I](#)

*[GC067: Multisector Dynamics: Science and Modeling for Societal Transformations I \(Capturing Transformations\)](#)

*[GC075: Multisector Dynamics: Science and Modeling for Societal Transformations II \(Capturing Uncertainty\)](#)

*[GC077: Multisector Dynamics: Science and Modeling for Societal Transformations III \(Capturing Human Systems\)](#)

[GC092: Extreme Events, Climate Change, and Urban Systems I](#)



Poster sessions

Poster sessions will be scheduled daily from 7-11 and 14-17 December.

A poster session is scheduled over the course of one day and presenters will designate the time they will be available for text chats to discuss their digital poster.

Authors have created [iPoster presentations](#) that will be available prior to the start of the Fall Meeting. This multimedia format allows for video upload and/or audio narration.

Presenters will be required to schedule a text chat on the day of the poster session and will also have the option of scheduling additional text chat times during the meeting at their discretion.

There are seven Multisector Dynamics Poster Sessions happening this year:

[GC007: Advances in Understanding Impacts of Land Use and Land Cover Change in a Changing Climate Using Earth System Records and Models II Posters](#)

[GC008: Bridging Systems Modeling Advances Across Socioecological Domains II Posters](#)

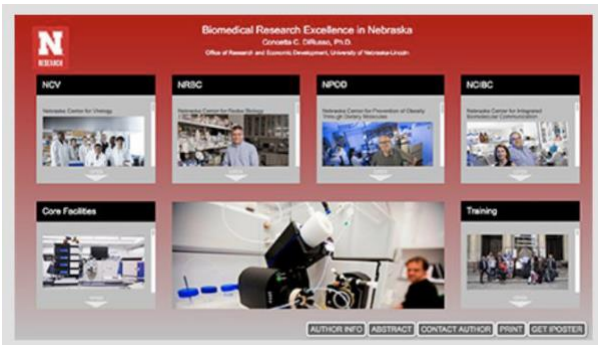
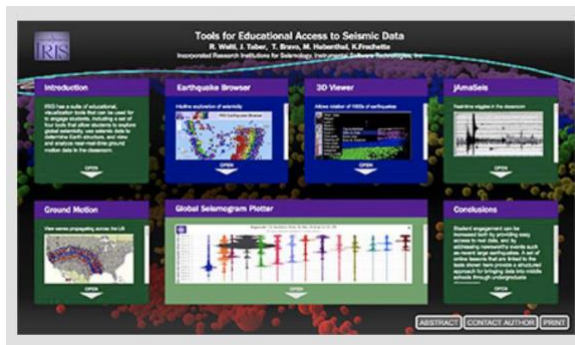
[GC056: Multisector Dynamics: Urban System Interactions and Resilience II Posters](#)

[GC057: Multisector Dynamics: Energy–Water–Land Interactions at Multiple Scales II Posters](#)

[GC072: Multisector Dynamics: Science and Modeling for Societal Transformations IV Posters](#)

[GC073: Multisector Dynamics: Science and Modeling for Societal Transformations V Posters](#)

[GC084: Extreme Events, Climate Change, and Urban Systems II Posters](#)



eLightning sessions

eLightning sessions will be scheduled daily from 7-11 and 14-17 December

An eLightning session is a one-hour live session featuring three-minute oral talks providing an overview of presenters' digital posters, followed by discussion. Presenters will also schedule time for text chats with attendees. The live Q&A sessions will be recorded and available for on-demand viewing.

Authors have created [iPoster presentations](#) that will be available prior to the start of the Fall Meeting. This multimedia format allows for video upload and/or audio narration.

Each presenter will give a three-minute brief overview of their poster; if time permits, the chairs will then moderate a short Q&A period with the presenters and registered meeting attendees.

Presenters are requested to be available for one hour after the live session for text chat with attendees. They will also have the option to schedule additional text chat times during the meeting at their discretion.

There are two Multisector Dynamics eLightning Sessions happening this year:

[GC013: Bridging Systems Modeling Advances Across Socioecological Domains I eLightning](#)

[SY051: Science Informing Energy Resilience and Adaptation Strategies I eLightning](#)



MSD Special Issue at Earths' Future



We are proud to announce that our Community of Practice is leading a [Call for Papers at Earth's Future](#).

Submission Open: 1 October 2020

Submission Deadline: 1 October 2021

Special Section Organizers:

Patrick Reed, Cornell University

Jan Kwakkel, Technical University at Delft

Julie Rozenberg, World Bank

Jennifer Morris, Massachusetts Institute of Technology

Jordan Macknick, National Renewable Energy Laboratory (NREL)

Special Issue abstract:

Designing dynamic and adaptive strategies for navigating the challenges of the Anthropocene hinges on a sound understanding of the interdependent co-evolution of our technological (e.g., water supply, energy, transport, etc.), societal (population, health, economy), natural (watersheds, wetlands, forests, coasts) and managed (water resources, agriculture, forestry) systems. Understanding and projecting the dynamic interaction of these systems, and inherent systematic risks, is a grand scientific challenge that requires integration of concepts, data, methods, and insights from many disciplines in novel ways. The field of Multisector Dynamics (MSD) aims to advance our understanding of the co-evolution of human and natural systems in response to environmental, technological and societal changes and shocks; and to build the next generation of tools that bridge across sectors, scales, and disciplines. This special issue seeks state-of-the-art contributions that provide new insights and technical innovations that advance the emerging field of MSD.

We would like to encourage the members of our community to submit their contributions to this Special Issue.

Career opportunities

Our website features a [careers page](#) that lists available MSD-focused positions at all levels. If you'd like to post a position to be featured in this page, please email us at: contact@multisectordynamics.org.

Here are some of our latest postings:

[Postdoctoral Research Associate – Uncertainty Characterization for the Global Change Intersectoral Modeling System \(GCIMS\)](#)

The Civil and Environmental Engineering Department (CEE) at Tufts University invites applications for a Postdoctoral Research Associate position focusing on uncertainty quantification and scenario development for multi-sector systems under the supervision of Dr. Jonathan Lamontagne.

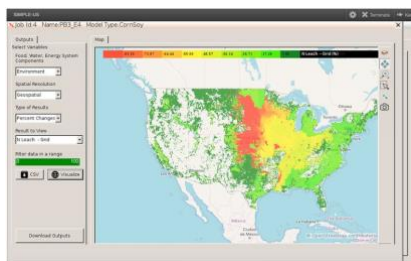
[Postdoctoral Associate Position – Water Dynamics in the Global Change Intersectoral Modeling System \(GCIMS\)](#)

The University of Maryland (UMD) invites applications for a postdoctoral associate position focused on contributing to the Global Change Intersectoral Modeling System (GCIMS) Scientific Focus Area (SFA) (<https://gcims.pnnl.gov/>), sponsored by the U.S. Department of Energy.

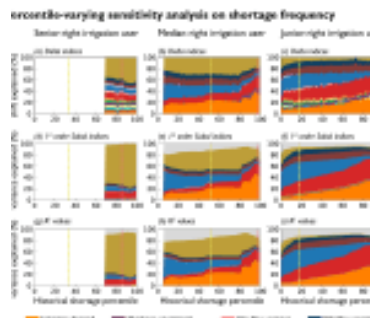
Publications

We have been posting and will be regularly updating select MSD publications on the website, under the [Publications](#) page. If you have any publications you would like us to highlight, please email contact@multisectordynamics.org.

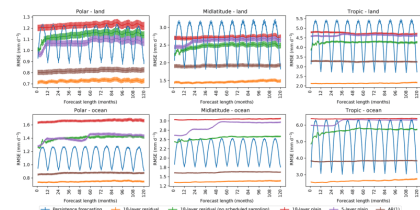
Below you can find some of the publications posted most recently:



[SIMPLE-G: A multiscale framework for integration of economic and biophysical determinants of sustainability](#)



[Advancing diagnostic model evaluation to better understand water shortage mechanisms in institutionally complex river basins](#)



[Deep learning for creating surrogate models of precipitation in Earth system models](#)

This newsletter has been edited by Antonia Hadjimichael, Tina Karimi and the Community of Practice Facilitation Team. This and all previous newsletters can be accessed at the [Newsletters](#) page of our website. If you have any suggestions, concerns or other feedback about this newsletter or the MSD website, please email contact@multisectordynamics.org.