

**CSDMS 2019 Annual Meeting: CSDMS 3.0 – Bridging Boundaries**

**May 21-23, 2019**

University of Colorado, Sustainability Energy and Environment Complex, 4001 Discovery Drive, C120  
Boulder, Colorado 80309

**\*\*\*Pre-conference May 20 (all day)**

1) CSDMS Software Carpentry Workshop, 9:00AM, SEEC S225 (Mark Piper) **Breakfast will be served starting at 8:30AM**

2) Jef Caers 9:00AM, SEEL 303 (Uncertainty Quantification) **Breakfast will be served starting at 8:30AM**

**Tuesday, May 21, 2019**

<b>Time</b>	<b>Location</b>	<b>What</b>	<b>Presenter</b>	<b>Topic</b>
8:00 & 8:30AM		<i>Bus departs to SEEC Venue</i>		
8:15AM	Lobby	<b>Registration &amp; Breakfast</b>		
9:00AM	C120	Welcome	Brad Murray, Duke U	Welcome
9:05 AM	C120	CSDMS	Greg Tucker, CSDMS, CU, Boulder	CSDMS 3.0 Updates
9:30 AM	C120	<b>Plenary</b> Keynote	Susanne Buitter, Norway GS/CIG	<i>How Extensional Tectonics and Surface Processes Interact to Shape Continental Plate Boundaries</i>
10:00AM	C120	<b>Plenary</b> Keynote	Evan Goldstein, UNC, Greensboro	<i>Machine Learning and Coastal Morphodynamics</i>
10:30AM	C120	<b>Plenary</b> Keynote	Lauren Hay, USGS – CUAHSI sponsored speaker	<i>The National Hydrologic Model: Coordinated, Comprehensive and Consistent Hydrologic Modeling at Multiple Scales for the Conterminous United States</i>
11:00AM	Lobby	<b>Break</b>		
11:15AM	C120	Breakout 1.1	Terrestrial WG & Geodynamics FRG	
	S225	Breakout 1.2	Human Dimensions FRG	
	SEEL 303	Breakout 1.3	Hydrology FRG, Critical Zone FRG	
	N224	Breakout 1.4	Marine WG, Cyber WG, EKT WG	
	S372A/B	Breakout 1.5	Coastal WG, Ecosystem Dyn FRG, Carb & Biogenics FRG, Chesapeake FRG	
12:30PM		<b>Lunch</b>		
1:30PM	SEEL 303	Clinic 1.1	Bert Jagers, Deltares	<i>Morphological Modelling using Delft3D Flexible Mesh</i>
	N149	Clinic 1.2	Mark Piper, CU, Boulder	<i>BMI Live!</i>
	N124	Clinic 1.3	Joe Hamman, UCAR	<i>Pangeo: Scalable Geoscience Tools in Python –Xarray, Dask, and Jupyter</i>
	S225	Clinic 1.4	Andrew Moodie, Rice U	<i>Developing and Teaching Interactive Sedimentology and Stratigraphy Computer Activities</i>
3:30PM	Lobby	<b>Break</b>		
3:45PM	C120	<b>Plenary</b> Panel Discussion	Chris Jenkins, CU, Boulder and AI/ML Members	<i>The Machine Learning Landscape (Panel &amp; Audience)</i>
4:15PM	C120	<b>Plenary</b> Demo	Eric Hutton, CU, Boulder	<i>The CSDMS Python Modeling Tool (PyMT) Demo</i>
4:30PM	C120	<b>Plenary</b> Demo	Jed Brown, CU, Boulder	<i>JOSS: Journal of Open Source Software</i>
4:45PM	C120	<b>Poster</b> Session 1		
6:30PM		<i>Bus departs to hotel</i>		

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**Wednesday, May 22, 2019**

<b>Time</b>	<b>Location</b>	<b>What</b>	<b>Presenter</b>	<b>Topic</b>
8:00 & 8:30AM		<i>Bus departs to SEEC Venue</i>		
9:00AM	C120	<b>Plenary</b> Keynote	Derek Robinson, U Waterloo	<i>Coupling Natural-Human Systems at the Decision-making Scale</i>
9:30AM	C120	<b>Plenary Student Talk</b>	Jan Nitzbon, Alfred Wegner Inst	<i>Modeling the Degradation of Ice-rich Permafrost Landscapes</i>
10:00AM	C120	<b>Plenary</b> Keynote	Alison Anders, U Illinois, Urbana	<i>Follow the Water: Post-glacial Landscape Evolution in the Central Lowlands</i>
10:30AM	Lobby	<b>Break</b>		
10:45AM	C120	<b>Breakout 2.1</b>	Chris Sherwood	Life on the edge: coastlines, sediment, ecosystems, and people
	SEEL 303	Breakout 2.2	Kim deMutsert, Jill Marshall	Biomes, water, and sediment: interaction of life and morphology
	S225	Breakout 2.3	Mark Behn, Nicole Gasparini	Subduction zones: mountains from submarine to subaerial
	N149	Breakout 2.4	Mike Steckler, Courtney Harris	Into the abyss: modeling deep marine processes
	S372A/B	Breakout 2.5	Andy Wickert, Abigail Langston	Source to sink: modeling signals from landscapes to stratigraphy, climate interactions
	N249	Breakout 2.6	Guillermo Auad	Tracers and pollutants across the earth's surface
	N224	Breakout 2.7	Irina Overeem, Kelly Kochanski	Melting permafrost: water, carbon, and landscape evolution
12:30PM		<b>Lunch</b>		
1:30PM	N124	<b>Clinic 2.1</b>	Eric Hutton, CU, Boulder	<i>The CSDMS Python Modeling Tool (PyMT)</i>
	SEEL 303	Clinic 2.2	Danielle Tijerina, CUAHSI	CUAHSI Services for Hydrologic Modeling and Data
	N224	Clinic 2.3	Jason Fleming, Seahorse Coastal Consulting	<i>ADCIRC</i>
	S225	Clinic 2.4	Katy Barnhart, CU, Boulder	<i>Model Calibration with Dakota</i>
3:30PM	Lobby	<b>Break</b>		
3:45PM	C120	<b>Poster</b> Session 2		
5:45PM		<i>Bus departs to hotel</i>		
6:45PM		<i>Bus departs for banquet</i>		
7:00PM		<b>Banquet, The St. Julien Hotel, 900 Walnut St, Boulder, CO</b>		
9:00PM		<i>Bus departs to hotel</i>		

**Awards Banquet (May 22) – 7PM at The St. Julien Hotel, 900 Walnut St, Boulder, CO 80302**

- 1) Syvitski Student Modeler Award Announcement
- 2) Poster Award – TBD by attendee votes
- 3) Lifetime Achievement Award

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**Thursday, May 23, 2019**

<b>Time</b>	<b>Location</b>	<b>What</b>	<b>Presenter</b>	<b>Topic</b>
8:00 & 8:30AM		<i>Bus depart to SEEC Venue</i>		
9:00AM	C120	<b>Plenary</b> Keynote	Zoltan Sylvester, U Texas, Austin	<i>meanderpy: A Simple Model of Meandering Sheds Light on Channel Kinematics and Autogenic Counter Point Bars</i>
9:30AM	C120	<b>Plenary</b> Keynote	Katherine Ratliff, US EPA	<i>Exploring Delta Morphodynamics using the CSDMS BMI to Couple Fluvial and Coastal Processes</i>
10:00AM	C120	<b>Plenary</b> Student Talk 3	Jingtao Lai, U Illinois, Urbana	<i>Modeled Postglacial Landscape Evolution at the Southern Margin of the Laurentide Ice Sheet: Hydrological Connection of Uplands Controls the Pace and Style of Fluvial Network Expansion</i>
10:15AM	Lobby	<b>Break</b>		
10:30AM	N224	Clinic 3.1	Yang Yang, Memphis U	<i>An Introduction to CUDA-enabled DES3D</i>
	S372A/B	Clinic 3.2	Daniel Buscombe, Northern Arizona U	<i>Landcover and Landform Classification using Deep Neural Networks</i>
	SEEL 303	Clinic 3.3	Nate Lyons, Tulane U	<i>Model Sensitivity Analysis using SALib</i>
	S225	Clinic 3.4	Leslie Hsu, USGS	<i>Making your Models and Data FAIR – Findable, Accessible, Interoperable and Reusable</i>
12:30PM		<b>Lunch</b>		
1:30PM	C120	<b>Plenary</b> Keynote	Mike Steckler, LDEO, Columbia U	<i>SEQUENCE Stratigraphic Modeling in Landlab</i>
2:00PM	C120	<b>Plenary</b> Keynote	Boyana Norris, U Oregon	<i>Understanding and Improving the Performance of Scientific Software and its Humans</i>
2:30PM	Lobby	<b>Break</b>		
2:45PM	C120	<b>Breakout</b> 3.1	Bert Jagers, Mark Piper	<i>Why BMI? The awesome power of interfaces</i>
	S225	Breakout 3.2	Katy Barnhart	<i>Model inter-comparison and uncertainty</i>
	SEEL 303	Breakout 3.3	Derek Robinson, Moira Zellner	<i>Coupled modeling of human/natural systems, interactive modeling for decisioneers</i>
	N149	Breakout 3.4	Joe Hamman, Jed Brown	<i>Cool tools and bothersome bottlenecks</i>
	N224	Breakout 3.5	Sagy Cohen	<i>Incorporating geospatial capabilities in surface dynamics models</i>
	N249	Breakout 3.6	Efi Foufoula-Georgiou	<i>Network-based models</i>
	N124	Breakout 3.7	Paola Passalacqua, Chris Crosby	<i>Opportunities in high-res topographic data</i>
4:00PM	C120	<b>Plenary</b> Panel Discussion	Carolyn Brinkworth, UCAR Aisha Morris, NSF; Anne Gold, CU; Kadidia Thiero, UCAR	<i>Diversity in the GeoSciences – Opportunities and Challenges</i>
4:45PM	C120	<b>Final</b> Remarks	Greg Tucker	<i>See you next year!</i>
5:00PM		<i>Bus departs to hotel</i>		

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**Friday, May 24- Meetings by invitation only**

8:30-11:00AM	Location: Sustainability, Energy & Environment Center (SEEC) Room N136 4001 Discovery Dr. Boulder, CO 80309 Executive Committee S228	Executive Committee Meeting
11:00AM		Lunch is available for Executive and Steering Committees
11:00AM – 1:00PM		Steering Committee Meeting