



# ON THE SURFACE

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CSDMS Newsletter

January 2026

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## Basic Model Interface (BMI) for R



Have you ever wanted to wrap a model written in R with a [Basic Model Interface](#) (BMI)? Now you can! As a part of the OpenEarthscape project, and in collaboration with researchers from the Netherlands eScience Center, we've written BMI mappings for R, as well as a simple example of implementing the mappings. Here's where they live on GitHub:

- Mappings: <https://github.com/csdms/bmi-r>
- Example: <https://github.com/csdms/bmi-example-r>

R joins C, C++, Java, Fortran and Python as languages officially supported in BMI by CSDMS.

If you'd like help using BMI for R, contact us through the [CSDMS Help Desk](#).

Comments and suggestions for improvement are always welcome—please feel free to log issues directly in the repositories above.

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## CSDMS 2026: Modeling Landscapes in Motion

At University of Minnesota, Minneapolis MN, May 19 -21<sup>st</sup> 2026

### CSDMS Annual Meeting - Registration Now Open!

Join us at the University of Minnesota, Minneapolis, May 19th-21st, 2026 as we explore and celebrate the many facets of landscapes and seascapes in motion, from landslides to landforms and beaches to basins.

Important Deadline:

- A limited number of **Travel Scholarships** will be available and the deadline to apply is February 8th, 2026. Application information will be available on the meeting web page in mid-January.

[DETAILS AND REGISTER](#)

### CSDMS Spring Webinar Series

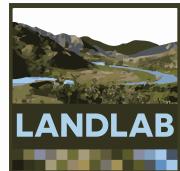
Please join us for the [CSDMS 2026 Spring Webinar Series!](#) Registration is required and links are provided below.

#### Landlab Developers/Users Community Software Meeting

Thursday, December 4th, 2025 @ 10:00AM MST

**Greg Tucker and Eric Hutton, CSDMS IF**

This biannual meeting of the [Landlab](#) community will start with a round of short pop-up presentations by community members on Landlab workflows/components/features that are currently being used/developed, followed by discussions on Landlab needs/wish list (new features that people think would be useful to their use case) and pain points (things that people find confusing or have had trouble with). The meeting is open to all active and soon-to-be-active landlab users.



[REGISTER](#)



## A Review of Sediment Transport Models in the Northern Gulf of Mexico

Wednesday, April 8th, 2026 @ 10AM MDT

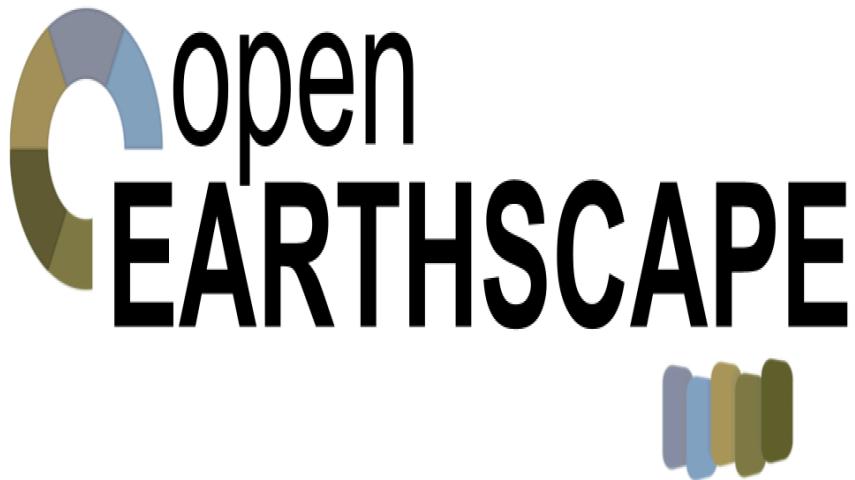
**Kevin Xu, Louisiana State University**

The northern Gulf of Mexico receives large volumes of freshwater and sediment from both major and minor river systems. The Mississippi River system, the largest in North America in terms of freshwater discharge, plays a dominant role in shaping this region. Its massive freshwater and sediment input helps sustain one of the most dynamic, biologically productive, and economically vital continental shelves on Earth. Despite its global importance, the northern Gulf of Mexico remains an under-sampled coastal region, particularly with respect to the transport of water and sediment. This talk will present hydrodynamic, sedimentological, and geomorphological modelling studies conducted in the northern Gulf over the past 15 years. Key processes—including river plume dynamics, sediment settling within the water column, and sediment resuspension from the seabed—will be reviewed. Looking ahead, the increasing integration of machine learning and artificial intelligence is expected to play a major role in advancing the modeling of physical and geological processes in the northern Gulf.

[\*\*REGISTER\*\*](#)

Previous CSDMS-sponsored webinars are [archived here](#) and available for viewing anytime. If you have suggestions for future webinars, please contact [csdms@colorado.edu](mailto:csdms@colorado.edu).

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### **CSDMS OpenEarthScape 2026 Visiting Scholars Program**

Application window opens December 8th, 2025 (deadline February 15th, 2026). The Summer Visiting Scholar Program is open to graduate students interested in spending up to 6 weeks at the CSDMS Integration Facility at the University of Colorado, Boulder. Selected students will be working on their own research and will benefit from mentoring with the CSDMS Research Software Engineers and faculty/staff. Our cohorts in 2022 - 2025 were resounding successes and we hope to make the 2026 program even more beneficial for your research progress. We anticipate 1-2 students will be selected for the 2026 program. In addition to proximity to the CSDMS Software Engineers and other team members, the Integration Facility can provide the following support:

**Student**

Domestic travel and lodging support for up to 45 days in Boulder. Stipend support is available for US Citizens only and is based on CU GRA rates @100% for summer semester (about \$5,500 per month). International students and students in the US on F-1 and J-1 visas are welcome to apply and travel/lodging support will be provided, but stipend support cannot be provided due to visa restrictions.

### **Advisor**

Travel and lodging support for a 7-day trip to Boulder (including per diem and ground transportation) to work collaboratively with CSDMS and the student.

Priority will be given to students that have computational projects that:

- Are "shovel ready".
- Will result in a product, such as a publication, a conference presentation, a new model component, an educational tutorial, etc.

To apply, please send an email to [csdms@colorado.edu](mailto:csdms@colorado.edu) by **February 15, 2026** with your name, brief description of your future goals, description of the specific project that could benefit from CSDMS Integration Facility support and any resulting products proposed. Additionally, we'll need approval from your advisor to participate in the program (this can be in the form of an attached letter or email).

We're excited to work with you and we look forward to chatting about how the CSDMS Integration Facility can most usefully contribute to your research next summer!

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## **CSDMS Community Teaching and Research Resources**

CSDMS Workbench - <https://csdms.colorado.edu/wiki/Workbench>

CSDMS Model Repo - [https://csdms.colorado.edu/wiki/Model\\_download\\_portal](https://csdms.colorado.edu/wiki/Model_download_portal)

Open Earthscape Jupyter Hub - <https://csdms.colorado.edu/wiki/JupyterHub>

CSDMS EKT Labs - [https://csdms.colorado.edu/wiki/Labs\\_portal](https://csdms.colorado.edu/wiki/Labs_portal)

Office Hours (via Zoom) with a CSDMS Research Software Engineer - 9AM on Wednesdays. To register - <https://csdms.colorado.edu/wiki/OfficeHours>

CSDMS Jobs Board - <https://csdms.colorado.edu/wiki/Jobs>

CSDMS Help Desk - <https://csdms.github.io/help-desk/>

CSDMS Forum - <https://forum.csdms.io>

CSDMS YouTube Channel - <https://www.youtube.com/@CSDMSmovie/videos>

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## **CLaSH Small Grants Program**

The [CLaSH Small Grants Program](#) for 2025–2026 is now accepting proposals!

**Program Overview:** The Small Grants Program provides flexible, seed-level funding to support creative projects that advance land surface hazard cascade research, broaden community participation, and foster cross-cutting science connecting observations, modeling, and societal relevance.

**Funding Details:**

- Award Size: \$20,000–\$40,000 (including indirect costs)

- Anticipated Awards: 5–9 annually
- Project Duration: Up to 12 months
- Projected Start Date: May 1, 2026
- Proposal Deadline: February 4, 2026 (11:59 PM PST)

2025–2026 Priority Areas: This year, we're particularly interested in proposals that couple new data acquisition, process-based modeling, or AI-driven analyses to predict multi-hazard cascades. Priority areas include:

- Site-specific investigations at CLaSH Hazard Observatories (Alaska, Appalachia, Puerto Rico, Southern California)
- Modeling of weather-related forcing and phenomena
- Machine learning applications and development of AI-ready datasets of land surface hazards

While prioritizing these areas this year, we welcome all proposals that advance hazard cascade science, along with aligned community engagement and workforce development activities.

Learn More and Apply: <https://www.geoclash.org/small-grant-program-2025-26/>

Questions? Please reach out to [contact@geoclash.org](mailto:contact@geoclash.org).

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### Join us on Bluesky, Mastodon, YouTube and LinkedIn!

Please follow us and be the first to know about all the new CSDMS events and resources!!

[@CSDMS.bsky.social](https://@CSDMS.bsky.social) on Bluesky,

[@CSDMS@fediscience.org](mailto:@CSDMS@fediscience.org) on Mastodon, [@CSDMSmovie](https://@CSDMSmovie) on YouTube and [Community Surface Dynamics Modeling System on LinkedIn](https://www.linkedin.com/company/community-surface-dynamics-modeling-system/).



**CSDMS is an NSF  
sponsored program**

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**CSDMS IF Team** <csdms@colorado.edu>  
Reply-To: CSDMS IF Team <csdms@colorado.edu>

Thu, Jan 29, 2026 at 11:03 AM

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