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EDUCATION

- B.A.Sc., Engineering Physics (Geophysics option), 1997
University of British Columbia, Vancouver, British Columbia
- Ph.D., Geophysics (Graduate Certificate in Oceanography; Graduate Certificate in Hydrology), 2007
University of Colorado, Boulder, Colorado

ACADEMIC APPOINTMENTS

- 2021 - present: Research Scientist II, INSTAAR, University of Colorado
- 2007 - present: Chief Software Engineer, CSDMS, University of Colorado
- 2007 - 2021: Research Scientist I, INSTAAR, University of Colorado
- 1997 - 2007: Professional Research Assistant, INSTAAR, University of Colorado

MEMBERSHIPS

- American Geophysical Union
- European Geophysical Union
- Community Surface Dynamics Modeling System

PUBLICATIONS

Refereed Journal Articles, Book Chapters, and Proceedings

- Adams, Jordan M, Nicole M Gasparini, Daniel EJ Hobley, Gregory E Tucker, Eric WH Hutton, Sai S Nudurupati, and Erkan Istanbuluoglu. 2017. "The Landlab V1. 0 OverlandFlow Component: A Python Tool for Computing Shallow-Water Flow Across Watersheds." *Geoscientific Model Development* 10 (4): 1645–63.
- Ashton, Andrew D, Eric WH Hutton, Albert J Kettner, Fei Xing, Jisamma Kallumadikal, Jaap Nienhuis, and Liviu Giosan. 2013. "Progress in Coupling Models of Coastline and Fluvial Dynamics." *Computers & Geosciences* 53: 21–29.
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- Barnhart, Katherine R, Eric WH Hutton, Gregory E Tucker, Nicole M Gasparini, Erkan Istanbuluoglu, Daniel EJ Hobley, Nathan J Lyons, et al. 2020. "Landlab V2. 0: A Software Package for Earth Surface Dynamics." *Earth Surface Dynamics* 8 (2): 379–97.
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- Barnhart, Katherine R, Eric Hutton, and Gregory E Tucker. 2019. "Umami: A Python Package for Earth Surface Dynamics Objective Function Construction." *Journal of Open Source Software* 4 (42): 1776.
- Drost, Niels, Jerom Aerts, Fakhreh Alidoost, Bouwe Andela, Jaro Camphuijsen, Yifat Dzigian, Nick Van De Giesen, et al. 2022. "Towards Reproducible Hydrological Modelling with eWaterCycle." *Authorea*

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- Harris, Courtney K, Jaia Syvitski, HG Arango, EH Meiburg, Sagy Cohen, CJ Jenkins, Justin J Birchler, et al. 2020. “Data-Driven, Multi-Model Workflow Suggests Strong Influence from Hurricanes on the Generation of Turbidity Currents in the Gulf of Mexico.” *Journal of Marine Science and Engineering* 8 (8): 586.
- Hobley, Daniel EJ, Jordan M Adams, Sai Siddhartha Nudurupati, Eric WH Hutton, Nicole M Gasparini, Erkan Istanbuluoglu, and Gregory E Tucker. 2017. “Creative Computing with Landlab: An Open-Source Toolkit for Building, Coupling, and Exploring Two-Dimensional Numerical Models of Earth-Surface Dynamics.” *Earth Surface Dynamics* 5 (1): 21–46.
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- Tucker, Gregory E, Eric WH Hutton, Mark D Piper, Benjamin Campforts, Tian Gan, Katherine R Barnhart, Albert Kettner, et al. 2021a. “CSDMS: A Community Platform for Numerical Modeling of Earth-Surface Processes.” *Geoscientific Model Development Discussions* 2021: 1–40.
- Tucker, Gregory E, Eric Hutton, Mark Piper, Benjamin Campforts, Tian Gan, Katherine R Barnhart, Albert Kettner, et al. 2021b. “Numerical Modeling of Earth’s Dynamic Surface: A Community Approach.”

Non-refereed conference proceedings and presentations, technical reports, field guides, and other

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- Adams, Jordan Marie, Francis K Rengers, Nicole M Gasparini, Gregory E Tucker, Sai Siddhartha Nudurupati, Daniel EJ Hobley, Erkan Istanbuluoglu, and EWH Hutton. 2014. “Exploring Post-Wildfire Hydrologic Response in Central Colorado Using Field Observations and the Landlab Modeling Framework.” In *AGU Fall Meeting Abstracts*, 2014:EP51E–3562.
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- Bandaragoda, Christina, Anthony M Castronova, Jimmy Phuong, Erkan Istanbuluoglu, Ronda L Strauch, Sai Siddhartha Nudurupati, David G Tarboton, et al. 2017. “Lowering the Barriers to Computational Modeling of Earth’s Surface: Coupling Jupyter Notebooks with Landlab, HydroShare, and CyberGIS for Research and Education.” In *AGU Fall Meeting Abstracts*, 2017:ED32B–06.
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- Deng, Hang, Lesli Wood, Irina Overeem, and Eric Hutton. 2016. “The Influence of Topography on Subaqueous Sediment Gravity Flows and the Resultant Deposits: Examples from Deep-Water Systems in Offshore Morocco and Offshore Trinidad.” In *AGU Fall Meeting Abstracts*, 2016:EP43B–0953.
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RESEARCH GRANTS

Current Support

- **Collaborative Research: Facility: CSDMS: Engaging a thriving community of practice in Earth-surface dynamics.** U.S. National Science Foundation Geoinformatics Program. PI: G. Tucker, with CU Boulder co-investigators M. Piper, E.W.H. Hutton, A. Kettner, and I. Overeem, and external collaborators N. Gasparini and M. Zellner. 2022–2027, \$5,403,958 to CU Boulder.
- **Collaborative Research: Frameworks: OpenEarthScape—Transformative Cyberinfrastructure for Modeling and Simulation in the Earth-Surface Science Communities.** U.S. National Science Foundation Office of Advanced Cyberinfrastructure (OAC). PI: G. Tucker, with CU Boulder co-investigators J. Moriarty, E.W. Hutton, A. Kettner, and I. Overeem, and external collaborators N. Gasparini, D. Gochis, E. Istanbuluoglu, and A. Pfeiffer. 2021–2026, \$2,562,303 to CU Boulder.
- **BSF-NSF: Collaborative Research: Deciphering the role of extreme rainstorms and hydroclimatic regime on arid escarpment retreat and sub-cliff slope evolution.** U.S. National Science Foundation EAR Division. PI: G. Tucker, with co-investigators M. Rossi and E. Hutton, and external collaborators J. Pederson, Y. Enzel and E. Morin. 2021–2024, \$336,534 to CU Boulder.
- **Community Facility Support: The Community Surface Dynamics Modeling System (CSDMS).** U.S. National Science Foundation EAR Division. PI: G. Tucker, with co-investigators E. Hutton, A. Kettner, and I. Overeem, 2018-21 (extended with supplemental funding to 2022), \$3,916,960.
- **EarthCube Capabilities: Cloud-Based Accessible and Reproducible Modeling for Water and Sediment Research.** U.S. National Science Foundation EAR Division, PI: G. Tucker, with co-investigator E. Hutton, 2020-21 (extended to 2023), \$189,733.

Past Support

- **CNH-L: Climate Change Adaptation in a Coupled Geomorphic-Economic Coastal System.** U.S. National Science Foundation, Division Of Earth Sciences. (Sub-contract from UNCW). 2017-2023, \$32,770 to CU Boulder.
- **Collaborative Research: Exploring the linkages between Sea-Level Change, Sediment Transport and Geomorphology on Coastal Freshwater Water Sequestration.** U.S. National Science Foundation, Division Of Earth Sciences. PI: E. Hutton, 2019-2023, \$92,477
- **RAPID: COLLABORATIVE RESEARCH: Building Infrastructure to Prevent Disasters like Hurricane Maria.** U.S. National Science Foundation, Office of Advanced Cyberinfrastructure. PI: E. Hutton, 2019-2020, \$14,807.

SOFTWARE PRODUCTS

- **Landlab:** developer. First release in December 2013. Under active development.
<https://github.com/landlab/landlab>.
- **BMI (The Basic Model Interface):** project leader and developer. First publication 2012. Under active development.
<https://github.com/csdms/bmi>.
- **PyMT:** project leader and developer. First release in April 2015. Under active development.
<https://github.com/csdms/pymt>.
- **The Babelizer:** project leader and developer. First release in April 2018. Under active development.
<https://github.com/csdms/babelizer>.
- **Sequence:** developer. First release in August 2018. Under active development.
<https://github.com/sequence-dev/sequence>.
- **Sedflux:** project leader and developer: First publication 2001. Under maintenance.
<https://github.com/mcflugen/sedflux>.