Eric W. H. Hutton

April 2023

Research Scientist II, Institute of Arctic and Alpine Research (INSTAAR) Chief Software Architect, Community Surface Dynamics Modeling System (CSDMS) University of Colorado Boulder, CO 80309-0399 USA

Telephone: +1 303 492 6233 Email: huttone@colorado.edu

Web: https://www.colorado.edu/instaar/eric-hutton

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 Istanbulluoglu. 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.

Bahr, David B, Eric WH Hutton, James PM Syvitski, and Lincoln F Pratson. 2001. "Exponential Approximations to Compacted Sediment Porosity Profiles." Computers & Geosciences 27 (6): 691–700.

Bandaragoda, Christina, A Castronova, Erkan Istanbulluoglu, Ronda Strauch, Sai S Nudurupati, Jimmy Phuong, JM Adams, et al. 2019. "Enabling Collaborative Numerical Modeling in Earth Sciences Using Knowledge Infrastructure." *Environmental Modelling & Software* 120: 104424.

Barnhart, Katherine R, Eric WH Hutton, Gregory E Tucker, Nicole M Gasparini, Erkan Istanbulluoglu, 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.

Barnhart, Katherine R, Eric Hutton, Nicole M Gasparini, and Gregory E Tucker. 2018. "Lithology: A Landlab Submodule for Spatially Variable Rock Properties." Journal of Open Source Software 3 (30): 979.

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, Fakhereh Alidoost, Bouwe Andela, Jaro Camphuijsen, Yifat Dzigan, Nick Van De Giesen, et al. 2022. "Towards Reproducible Hydrological Modelling with eWaterCycle." *Authorea Preprints*.
- Gan, Tian, Gregory E Tucker, Eric WH Hutton, Mark D Piper, Irina Overeem, Albert J Kettner, Benjamin Campforts, et al. 2023. "CSDMS Data Components: Data-Model Integration Tools for Earth Surface Processes Modeling." Geoscientific Model Development Discussions 2023: 1–31.
- ———, et al. 2024. "CSDMS Data Components: Data–Model Integration Tools for Earth Surface Processes Modeling." Geoscientific Model Development 17 (5): 2165–85.
- Gasparini, Nicole M, Jordan Marie Adams, Gregory E Tucker, Daniel EJ Hobley, Eric Hutton, Erkan Istanbulluoglu, and Sai Siddhartha Nudurupati. 2016. "Landlab: A Numerical Modeling Framework for Evolving Earth Surfaces from Mountains to the Coast." American Geophysical Union 2016: MG14A–1920.
- 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 Istanbulluoglu, 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.
- Hoke, Monica RT, Brian M Hynek, Gaetano Di Achille, and Eric WH Hutton. 2014. "The Effects of Sediment Supply and Concentrations on the Formation Timescale of Martian Deltas." *Icarus* 228: 1–12.
- Hu, Ningjie, A Brad Murray, Katherine M Ratliff, Zachary Little, and Eric WH Hutton. 2022. "Wave-Climate Asymmetry Influence on Delta Evolution and River Dynamics." *Geophysical Research Letters* 49 (9): e2021GL096315.
- Hut, Rolf, Niels Drost, Nick van de Giesen, Ben van Werkhoven, Banafsheh Abdollahi, Jerom Aerts, Thomas Albers, et al. 2022. "The eWaterCycle Platform for Open and FAIR Hydrological Collaboration." Geoscientific Model Development 15 (13): 5371–90.
- Hutton, Eric. 2020. "Landlab V2. 0: Create and Couple Earth Surface Models in a Python Framework."
- Hutton, Eric W. H., James P. M. Syvitski, and Scott D. Peckham. 2010. "Producing CSDMS-Compliant Morphodynamic Code to Share with the RCEM Community." River, Coastal and Estuarine Morphodynamics RCEM 2009, 959–62.
- Hutton, Eric WH, Mark D Piper, Scott D Peckham, Irina Overeem, Albert J Kettner, and James PM Syvitski. 2014. "Building Sustainable Software-the CSDMS Approach." arXiv Preprint arXiv:1407.4106.
- Hutton, Eric WH, Mark D Piper, and Gregory E Tucker. 2020. "The Basic Model Interface 2.0: A Standard Interface for Coupling Numerical Models in the Geosciences." *Journal of Open Source Software* 5 (51): 2317.
- ——. 2022. "The Babelizer: Language Interoperability for Model Coupling in the Geosciences."
- Hutton, Eric WH, and James PM Syvitski. 2004. "Advances in the Numerical Modeling of Sediment Failure During the Development of a Continental Margin." *Marine Geology* 203 (3-4): 367–80.
- ——. 2008. "Sedflux 2.0: An Advanced Process-Response Model That Generates Three-Dimensional Stratigraphy." Computers & Geosciences 34 (10): 1319–37.
- Hutton, Eric WH, James PM Syvitski, and Yusuke Kubo. 2005. "The Numerical Modeling of River Deltas." In Mega-Deltas of Asia-Geological Evolution and Human Impact, 255–61. China Ocean Press Beijing.
- Hutton, Eric, Mark Piper, and Greg Tucker. 2018. "Geoscience Model Coupling in a Python Framework: PyMT."
- Hutton, EWH, JPM Syvitski, and AB Watts. 2012. "Isostatic Flexure of a Finite Slope Due to Sea-Level Rise and Fall." Computers & Geosciences.
- Hutton, EW, LF Pratson, JP Syvitski, and JEA Storms. 2003. "Modelling the Stratigraphic Development of the Inner Shelf Environment."
- Imran, Jasim, Gary Parker, James PM Syvitski, and Eric Hutton. n.d. "Debris Flows Vs. Turbidity Currents: A Modeling Comparison of Their Dynamics and Deposits Lincoln f. Pratson Division of Earth and Ocean Sciences, Duke University Durham, North Carolina, USA."
- Jouet, Gwenael, Eric WH Hutton, James PM Syvitski, and Serge Berné. 2008. "Response of the Rhône Deltaic Margin to Loading and Subsidence During the Last Climatic Cycle." Computers & Geosciences 34 (10): 1338–57.

- Kettner, AJ, B Gomez, EWH Hutton, and JPM Syvitski. 2009. "Late Holocene Dispersal and Accumulation of Terrigenous Sediment on Poverty Shelf, New Zealand." *Basin Research* 21 (2): 253–67.
- Kettner, AJ, EWH Hutton, and JPM Syvitski. n.d. "AGU 2004 Fall Meeting Session: OS04; Strata Formation on European Continental Margins Simulating the Impact of Sediment Flux of the 2003 Flood Event of the Rhone River on the Golf of Lions, France."
- Kubo, Yu'suke, James PM Syvitski, Eric WH Hutton, and Albert J Kettner. 2006. "Inverse Modeling of Post Last Glacial Maximum Transgressive Sedimentation Using 2D-SedFlux: Application to the Northern Adriatic Sea." *Marine Geology* 234 (1-4): 233–43.
- Kubo, Yu'suke, James PM Syvitski, Eric WH Hutton, and Chris Paola. 2005. "Advance and Application of the Stratigraphic Simulation Model 2D-SedFlux: From Tank Experiment to Geological Scale Simulation." Sedimentary Geology 178 (3-4): 187–95.
- Lee, Homa J, James PM Syvitski, Gary Parker, Daniel Orange, Jacques Locat, Eric WH Hutton, and Jasim Imran. 2002. "Distinguishing Sediment Waves from Slope Failure Deposits: Field Examples, Including the "Humboldt Slide", and Modelling Results." *Marine Geology* 192 (1-3): 79–104.
- Long-Reid, Ashanie, Allison M Pfeiffer, Eric Hutton, and Jonathan A Czuba. 2023. "Modeling the Impact of Bed Material Abrasion on the Fluvial Morphodynamics of a Volcanic Sediment Pulse, Suiattle River, WA." AGU23.
- Maselli, Vittorio, Eric W Hutton, Albert J Kettner, James PM Syvitski, and Fabio Trincardi. 2011. "High-Frequency Sea Level and Sediment Supply Fluctuations During Termination i: An Integrated Sequence-Stratigraphy and Modeling Approach from the Adriatic Sea (Central Mediterranean)." *Marine Geology* 287 (1-4): 54–70.
- ——. n.d. "From Stratodynamics."
- Morehead, Mark D, James P Syvitski, and Eric WH Hutton. 2001. "The Link Between Abrupt Climate Change and Basin Stratigraphy: A Numerical Approach." Global and Planetary Change 28 (1-4): 107–27.
- Morehead, Mark D, James P Syvitski, Eric WH Hutton, and Scott D Peckham. 2003. "Modeling the Temporal Variability in the Flux of Sediment from Ungauged River Basins." *Global and Planetary Change* 39 (1-2): 95–110.
- Nudurupati, Sai S, Erkan Istanbulluoglu, Jordan M Adams, Nicole M Gasparini, Gregory E Tucker, Eric Hutton, and Daniel Hobley. n.d. "Printing."
- Nudurupati, Sai S, Erkan Istanbulluoglu, Gregory E Tucker, Nicole M Gasparini, Daniel EJ Hobley, Eric WH Hutton, Katherine R Barnhart, and Jordan M Adams. 2023. "On Transient Semi-Arid Ecosystem Dynamics Using Landlab: Vegetation Shifts, Topographic Refugia, and Response to Climate." Water Resources Research 59 (4): e2021WR031179.
- Overeem, Irina, James PM Syvitski, and Eric WH Hutton. 2005. "Three-Dimensional Numerical Modeling of Deltas."
- Overeem, Irina, James PM Syvitski, Eric WH Hutton, and Albert J Kettner. 2005. "Stratigraphic Variability Due to Uncertainty in Model Boundary Conditions: A Case-Study of the New Jersey Shelf over the Last 40,000 Years." *Marine Geology* 224 (1-4): 23–41.
- Overeem, Irina, J Syvitski, A Kettner, E Hutton, and B Brakenridge. n.d. "Sinking Deltas Due to Human Activities."
- Peckham, Scott D., Eric W. H. Hutton, and Boyana Norris. 2012. "A Component-Based Approach to Integrated Modeling in the Geosciences: The Design of CSDMS." Computers & Geosciences.
- Peckham, Scott D, Anna Kelbert, Mary C Hill, and Eric WH Hutton. 2016. "Towards Uncertainty Quantification and Parameter Estimation for Earth System Models in a Component-Based Modeling Framework." Computers & Geosciences 90: 152–61.
- Pfeiffer, Allison, Katherine Barnhart, Jonathan Czuba, and Eric Hutton. 2020. "NetworkSedimentTransporter: A Landlab Component for Bed Material Transport Through River Networks." *Journal of Open Source Software* 5 (53).
- Piper, Mark, Richard McDonald, Eric Hutton, Steven Markstrom, Parker Norton, and Gregory Tucker. 2022.

- "Coupling Hydrologic Models with Data Services in an Interoperable Modeling Framework." Authorea Preprints.
- Piper, Mark, Gregory Tucker, Irina Overeem, Albert Kettner, Eric Hutton, and Lynn McCready. 2021. "The CSDMS Model Repository." Earth and Space Science Open Archive ESSOAr.
- Pratson, LE, Jasim Imran, Gary Parker, James PM Syvitski, and Eric Hutton. 2000. "Debris Flows Vs. Turbidity Currents: A Modeling Comparison of Their Dynamics and Deposits." *Special Publication-SEPM* 68: 57–72.
- Pratson, LF, E Hutton, J Syvitski, and A Kettner. 2003. "Modeling the Impact of Flood Sedimentation on the Acoustic Response of the Seabed." *Eos Transactions, American Geophysical Union* 84: F854.
- Pratson, Lincoln F, Eric WH Hutton, Albert J Kettner, James PM Syvitski, Paul S Hill, Douglas A George, and Timothy G Milligan. 2007. "The Impact of Floods and Storms on the Acoustic Reflectivity of the Inner Continental Shelf: A Modeling Assessment." Continental Shelf Research 27 (3-4): 542–59.
- Pratson, Lincoln F, Jasim Imran, Eric WH Hutton, Gary Parker, and James PM Syvitski. 2001. "BANG1D::: A One-Dimensional, Lagrangian Model of Subaqueous Turbid Surges." Computers & Geosciences 27 (6): 701–16.
- Pratson, Lincoln F, Jasim Imran, Gary Parker, James PM Syvitski, and Eric Hutton. 2000. "AAPG Memoir 72/SEPM Special Publication No. 68, Chapter 6: Debris Flows Vs. Turbidity Currents: A Modeling Comparison of Their Dynamics and Deposits."
- Pratson, Lincoln, and John Swenson. 2015. "Modeling Continental Shelf Formation in the Adriatic Sea and Elsewhere." *Oceanography* 17 (4): 118.
- Ratliff, Katherine M, Eric HW Hutton, and A Brad Murray. 2018. "Exploring Wave and Sea-Level Rise Effects on Delta Morphodynamics with a Coupled River-Ocean Model." *Journal of Geophysical Research: Earth Surface* 123 (11): 2887–2900.
- Ratliff, Katherine M, Eric WH Hutton, and A Brad Murray. 2021. "Modeling Long-Term Delta Dynamics Reveals Persistent Geometric River Avulsion Locations." Earth and Planetary Science Letters 559: 116786.
- Sazeed, Nafis, Loc K Luong, Vaughan R Voller, Michael S Steckler, Eric Hutton, and Mark Austin Person. 2023. "Linking Sediment Transport and Hydrogeologic Models and Its Impact on the Present-Day Salinity Distribution in a Prograding Delta System." AGU23.
- Syvitski, Hutton, J. P. 2011. "CSDMS–a Modeling System to Aid Sedimentary Research." *The Sedimentary Record* 9 (1): 4–9.
- Syvitski, James P, Eric W Hutton, and COLORADO UNIV AT BOULDER INST OF ARCTIC AND ALPINE RESEARCH. 2001. "Scaling and Integration of Process-Response Stratigraphic Models."
- Syvitski, James PM, and Eric WH Hutton. 1996. "In Situ Characteristics of Suspended Particles as Determined by the Floc Camera Assembly FCA." *Journal of Sea Research* 36 (1-2): 131–42.
- ——. 1997. "FLOC: Image Analysis of Marine Suspended Particles." Computers & Geosciences 23 (9): 967–74.
- ———. 2001. "2d Sedflux 1.0 c:: An Advanced Process-Response Numerical Model for the Fill of Marine Sedimentary Basins." Computers & Geosciences 27 (6): 731–53.
- ——. n.d. "Delivering Terrestrial Sediment to Continental Slopes: An Overview of Mechanisms."
- Syvitski, James PM, Albert J Kettner, Irina Overeem, Eric WH Hutton, Mark T Hannon, G Robert Brakenridge, John Day, et al. 1912. "Sinking Deltas." *Nature Geoscience*.
- ——, et al. 2009. "Sinking Deltas Due to Human Activities." Nature Geoscience 2 (10): 681–86.
- Syvitski, James PM, Lincoln F Pratson, Patricia L Wiberg, Michael S Steckler, Marcelo H Garcia, W Rockwell Geyer, Courtney K Harris, et al. 2007. "Prediction of Margin Stratigraphy." Continental Margin Sedimentation: From Sediment Transport to Sequence Stratigraphy, 459–529.
- Syvitski, James PM, Lincoln F Pratson, Patricia L Wiberg, Michael S Steckler, Marcelo H Garcia, W Rocky Geyer, Courtney K Harris, et al. n.d. "Chapter IX: Prediction of Margin Stratigraphy."
- Syvitski, JPM, and EWH Hutton. 2003. "Failure of Marine Deposits and Their Redistribution by Sediment Gravity Flows." *Landslide Tsunamis: Recent Findings and Research Directions*, 2053–69.
- Tucker, Gregory E, Katherine R Barnhart, Christina Bandaragoda, Nicole M Gasparini, Daniel EJ Hobley, Eric Hutton, Erkan Istanbulluoglu, Margaux Mouchene, and Sai Siddhartha Nudurupati. 2018. "Design and Applications of Landlab: A Modular Python-Language Framework for Building 2D Numerical Models of Earth-Surface Processes."
- Tucker, Gregory E, Daniel EJ Hobley, Eric Hutton, Nicole M Gasparini, Erkan Istanbulluoglu, Jordan M

- Adams, and Sai Siddartha Nudurupati. 2015. "CellLab-CTS 2015: A Python Library for Continuous-Time Stochastic Cellular Automaton Modeling Using Landlab." Geoscientific Model Development Discussions 8 (11): 9507–52.
- ———. 2016. "CellLab-CTS 2015: Continuous-Time Stochastic Cellular Automaton Modeling Using Landlab." Geoscientific Model Development 9 (2): 823–39.
- 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."Xing, Fei, Albert Kettner, Andrew Ashton, Eric Hutton, and James Syvitski. n.d. "CSDMS."

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

- Achille, G di, MRT Hoke, AP Rossi, BM Hynek, F Esposito, EWH Hutton, and AJ Kettner. 2012. "Process-Response Sedimentary Modeling of Ancient Martian Deltas 1: Introduction and Case Studies." In 43rd Annual Lunar and Planetary Science Conference, 2120. 1659.
- Adams, JM, NM Gasparini, GE Tucker, E Istanbulluoglu, E Hutton, DE Hobley, and S Nudurupati. 2013. "Modeling Wildfire and Hydrologic Response to Global Climate Change Using the Landlab Modeling Environment." In AGU Fall Meeting Abstracts, 2013:GC21C-0847.
- Adams, Jordan Marie, Nicole M Gasparini, Gregory E Tucker, Daniel EJ Hobley, EWH Hutton, Sai Siddhartha Nudurupati, and Erkan Istanbulluoglu. 2015. "Modeling Overland Flow-Driven Erosion Across a Watershed DEM Using the Landlab Modeling Framework." In *AGU Fall Meeting Abstracts*, 2015:H13C–1542.
- Adams, Jordan Marie, Francis K Rengers, Nicole M Gasparini, Gregory E Tucker, Sai Siddhartha Nudurupati, Daniel EJ Hobley, Erkan Istanbulluoglu, 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.
- Adams, Jordan M, Sai S Nudurupati, Nicole M Gasparini, Daniel EJ Hobley, Eric Hutton, Gregory E Tucker, and Erkan Istanbulluoglu. 2014. "Landlab: Sustainable Software Development in Practice." In *The Second Workshop on Sustainable Software for Science: Practice and Experiences (WSSSPE2), New Orleans, LA, USA*. Vol. 16.
- Aerts, Jerom PM, Rolf Hut, Niels Drost, Ben Van Werkhoven, Ronald van Haren, Yifat Dzigan, Jaro Camphuijsen, et al. 2019. "ERA-Interim Vs ERA-5 Hydrology Comparison." In *AGU Fall Meeting Abstracts*, 2019:H51D–07.
- Bandaragoda, Christina, Anthony M Castronova, Erkan Istanbulluoglu, Ronda L Strauch, Sai Siddhartha Nudurupati, Jimmy Phuong, Jordan Marie Adams, et al. 2019. "Enabling Collaborative Numerical Modeling in Hydrology Using Knowledge Infrastructure." In AGU Fall Meeting Abstracts, 2019:H11J–1618.
- Bandaragoda, Christina, Anthony M Castronova, Jimmy Phuong, Erkan Istanbulluoglu, 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.
- Bandaragoda, Christina, Jimmy Phuong, Sean Mooney, Kari Stephens, Erkan Istanbulluoglu, Kelsey Pieper, William Rhoads, et al. 2017. "Building Infrastructure to Prevent Disasters Like Hurricane Maria." In AGU Fall Meeting Abstracts, 2017:NH23E–2888.
- Barton, C Michael, Gerald Charles Nelson, Gregory E Tucker, Allen Lee, Cheryl Porter, Isaac Ullah, Eric Hutton, Gerrit Hoogenboom, Kimberly G Rogers, and Calvin Pritchard. 2017. "A Community Framework for Integrative, Coupled Modeling of Human-Earth Systems." In *AGU Fall Meeting Abstracts*, 2017:GC23F-01.
- Campforts, Benjamin, Charles M Shobe, Irina Overeem, Matthias Vanmaercke, Eric Hutton, Jean Braun, and Gregory E Tucker. 2020. "The Impact of Landslides on Sediment Dynamics, Fluvial Bedrock Incision and Steady-State Topography." In AGU Fall Meeting Abstracts, 2020:EP019–0002.
- 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.
- Drost, Niels, Jerom PM Aerts, Fakhereh Alidoost, Bouwe Andela, Jaro Camphuijsen, Nick van de Giesen, Rolf Hut, et al. 2021. "Towards Open and FAIR Hydrological Modelling with eWaterCycle." In EGU General Assembly Conference Abstracts, EGU21–7797.
- Drost, Niels, Jaro Camphuijsen, Rolf Hut, Nick Van De Giesen, Ben van Werkhoven, Jerom PM Aerts, Inti Pelupessy, et al. 2020. "The eWaterCycle Platform for FAIR and Open Hydrological Modeling." In EGU General Assembly Conference Abstracts, 11495.
- Drost, Niels, Rolf Hut, Nick Van De Giesen, Ben van Werkhoven, Jerom PM Aerts, Jaro Camphuijsen, Inti Pelupessy, et al. 2020. "Coupling Hydrological Models Using BMI in eWaterCycle." In *EGU General Assembly Conference Abstracts*, 11730.
- Drost, Niels, Rolf Hut, Nick Van De Giesen, Ben van Werkhoven, Jerom PM Aerts, Inti Pelupessy, Berend Weel, et al. 2019. "The eWaterCycle Platform for Open Science Hydrology." In *AGU Fall Meeting 2019*. AGU.
- Gan, Tian, Gregory E Tucker, Eric Hutton, Mark Piper, Irina Overeem, and Benjamin Campforts. 2022. "CSDMS Data Components: Data-Model Integration for Earth Surface Processes Modeling." In AGU Fall Meeting Abstracts, 2022:EP25D-1429.
- Gan, Tian, Gregory Tucker, Eric Hutton, Mark Piper, Anthony Castronova, and Benjamin Campforts. 2021. "CSDMS@ HydroShare: Find, Access, Operate, and Couple Data-Model Integration Tools for FAIR and Reproducible Research." In AGU Fall Meeting Abstracts, 2021:IN55D-04.
- Gasparini, Nicole M, Jordan Marie Adams, Christina Bandaragoda, Katherine R Barnhart, Daniel EJ Hobley, Eric Hutton, Erkan Istanbulluoglu, et al. 2019. "Landlab Jupyter Notebooks: Tools for Learning about Earth Surface Processes and How to Model Them." In AGU Fall Meeting Abstracts, 2019:ED13D–0896.
- Gasparini, Nicole M, Jordan Marie Adams, Daniel EJ Hobley, Eric Hutton, Sai Siddhartha Nudurupati, Erkan Istanbulluoglu, and Gregory E Tucker. 2016. "Landlab: An Open-Source Python Library for Modeling Earth Surface Dynamics." In *AGU Fall Meeting Abstracts*, 2016:EP43A–0932.
- Gasparini, Nicole M, Daniel EJ Hobley, Gregory E Tucker, Erkan Istanbulluoglu, Jordan Marie Adams, Sai Siddhartha Nudurupati, and EWH Hutton. 2014. "A Comparison of the CHILD and Landlab Computational Landscape Evolution Models and Examples of Best Practices in Numerical Modeling of Surface Processes." In AGU Fall Meeting Abstracts, 2014:EP51E–3564.
- Hall, Caitlyn A, Rolf Hut, Niels Drost, Nick Van De Giesen, Ben van Werkhoven, Jerom PM Aerts, Berend Weel, et al. 2019. "eWaterCycle: Putting the Public in Charge Is Only FAIR." In *AGU Fall Meeting Abstracts*, 2019:PA31A-06.
- Harris, Courtney Kay, Irina Overeem, Eric Hutton, Julia Moriarty, and Patricia Wiberg. 2016. "Introducing Students to Ocean Modeling via a Web-Based Implementation for the Regional Ocean Modeling System (ROMS) River Plume Case Study." In AGU Fall Meeting Abstracts, 2016:ED13C-0946.
- Harris, Courtney Kay, James P Syvitski, Hernan Arango, Eckart Heinz Meiburg, Guillermo Auad, Sagy Cohen, Eric Hutton, Chris J Jenkins, Tara A Kniskern, and Senthil Radhakrishnan. 2018. "Toward Quantifying the Influence of Hurricanes on Generating Turbidity Currents in the Gulf of Mexico: A Multi-Model Workflow." In AGU Fall Meeting Abstracts, 2018:EP53B–22.
- Hobley, Daniel EJ, Hugh Denny Sinclair, Nicole M Gasparini, Gregory E Tucker, Patience A Cowie, Jordan Marie Adams, EWH Hutton, Erkan Istanbulluoglu, and Sai Siddhartha Nudurupati. 2014. "Elevated Channel Concavities Arising from Sediment-Flux Effects in Natural Rivers." In *AGU Fall Meeting Abstracts*, 2014:EP51G-05.
- Hobley, Daniel EJ, Gregory E Tucker, Jordan M Adams, Nicole M Gasparini, EWH Hutton, Erkan Istanbulluoglu, and Sai Siddhartha Nudurupati. 2013. "Landlab—a New, Open-Source, Modular, Python-Based Tool for Modeling Landscape Dynamics." In *Geological Society of America Abstracts with Programs*, 45:649.
- Hobley, Daniel, Jordan Adams, Nicole Gasparini, Eric Hutton, Erkan Istanbulluoglu, Sai Siddhartha Nudurupati, and Gregory Tucker. 2016. "Landlab: A New, Open-Source, Modular, Python-Based Tool for Modelling Earth Surface Dynamics." In EGU General Assembly Conference Abstracts, EPSC2016–9981.
- Hobley, DE, GE Tucker, JM Adams, NM Gasparini, E Hutton, E Istanbulluoglu, and S Nudurupati. 2013. "Modeling Impact Cratering as a Geomorphic Process Using the Novel Landscape Evolution Model Landlab." In AGU Fall Meeting Abstracts, 2013:EP33A–0868.
- Hoke, MRT, BM Hynek, G di Achille, and E Hutton. 2012. "Process-Response Sedimentary Modeling of Ancient Martian Deltas 2: Offshore Sedimentation and Formation Timescales." In 43rd Annual Lunar and

- Planetary Science Conference, 2254. 1659.
- Hu, Ningjie, A Brad Murray, Katherine Ratliff, Zachary Little, and Eric Hutton. 2021. "How Does Wave Asymmetry Influence Delta Evolution and River Dynamics?" In AGU Fall Meeting Abstracts, 2021:EP14A-02.
- Hut, R, Drost, Van De Giesen, B van Werkhoven, JPM Aerts, I Pelupessy, B Weel, et al. 2019. "The eWaterCycle Platform for Open Science Hydrology." In AGU Fall Meeting Abstracts, 2019:IN11B-16.
- Hut, Rolf, Niels Drost, Jerom Aerts, Laurene Bouaziz, Willem van Verseveld, Bert Jagers, Fedor Baart, et al. 2020. "Comparing the Impact for Hydrology of the New ERA5 Reanalyses Dataset over ERA-Interim for 8 Hydrological Models in 6 Catchments Using the eWaterCycle Community Modelling Environment." In EGU General Assembly Conference Abstracts, 10219.
- Hut, Rolf, Niels Drost, Jerom Aerts, Laurene Bouaziz, Willem van Verseveld, Bert Jagers, Fedor Baart, et al. 2021. "Comparing Impact of ERA5 Vs ERAInterim on Hydrology Using the eWaterCycle Open Hydrological Platform." In EGU General Assembly Conference Abstracts, EGU21–9452.
- Hutton, Eric. 2016. "PyMT: A Python Package for Model-Coupling in the Earth Sciences." In AGU Fall Meeting Abstracts, 2016:EP43A-0941.
- Hutton, Eric WH. 2007. "Modeling the Processes That Form and Erode Marine Strata." PhD thesis, University of Colorado at Boulder.
- Hutton, Eric, and Mark Piper. 2018. "Reproducibly Built, Tested and Interoperable Software for the Earth-System Community: The CSDMS Bakery and PyMT." In AGU Fall Meeting Abstracts, 2018:IN43C-0905.
- Hutton, Eric, Mark Piper, Tian Gan, and Greg Tucker. 2020. "The Basic Model Interface 2.0: A Standard Interface for Coupling Numerical Models and Data in the Hydrologic Sciences." In *EGU General Assembly Conference Abstracts*, 12488.
- Hutton, Eric, Michael S Steckler, and Gregory E Tucker. 2022. "Taking the Land Out of Landlab: Building a Marine Sequence-Stratigraphic Model Using Landlab." In AGU Fall Meeting Abstracts, 2022:EP25D-1430.
- Hutton, Eric, Michael Steckler, and Gregory Tucker. 2024. "Sequence: A Coupled Sequence-Stratigraphic Model Built Using Landlab." Copernicus Meetings.
- Hutton, Eric, and Gregory Tucker. 2023. "Landlab: A Modeling Platform That Promotes the Building of FAIR Research Software." In EGU General Assembly Conference Abstracts, EGU–12443.
- Hutton, Eric, Gregory E Tucker, Mark Piper, Albert Kettner, and Irina Overeem. 2019. "The Basic Model Interface 2.0: A Standard Interface for Geoscientific Numerical Models and Data." In *AGU Fall Meeting Abstracts*, 2019:IN21D-0881.
- Hutton, EW, AJ Kettner, Kubo, B Gomez, and JP Syvitski. 2007. "Simulating the Effects of Hyperpycnal Events on the Stratigraphy of Poverty Shelf, New Zealand." In *AGU Fall Meeting Abstracts*, 2007:H41B-0503.
- Hutton, EW, LF Pratson, JP Syvitski, and JE Storms. 2003. "Numerical Experiments to Investigate How Processes Form Strata." In AGU Fall Meeting Abstracts, 2003:OS52A-0888.
- Hutton, EW, and JP Syvitski. 2001. "Assessing Geotechnical Parameters and Slope Stability on the Architecture of Continental Margins." In AGU Fall Meeting Abstracts, 2001:H22G–10.
- ———. 2006. "Isostatic Flexure of Continental Shelves Caused by Water Loading: Analytic Solutions and Application." In AGU Fall Meeting Abstracts, 2006:OS31A-1618.
- Istanbulluoglu, Erkan, Sai Siddhartha Nudurupati, Gregory Tucker, Nicole Gasparini, Daniel Hobley, Eric Hutton, Katherine Barnhart, and Jordan Adams. 2021. "On Transient Semi-Arid Ecosystem Dynamics Using Landlab: Vegetation Shifts, Topographic Refugia, and Response to Climate." In *AGU Fall Meeting Abstracts*, 2021:H51E–08.
- Kettner, AJ, B Gomez, JP Syvitski, and EW Hutton. 2006. "Simulating Sediment Delivery to and Accumulation on the Poverty Shelf, New Zealand." In AGU Fall Meeting Abstracts, 2006:OS23B-1642.
- Kettner, AJ, EW Hutton, and JP Syvitski. 2004. "Simulating the Impact of Sediment Flux of the 2003 Flood Event of the Rhône River on the Golf of Lions, France." In AGU Fall Meeting Abstracts, 2004:OS23C-1321.
- Kettner, Albert, Irina Overeem, Gregory E Tucker, Eric Hutton, Mark Piper, and Leslie Hsu. 2019. "Developing and Implementing Standards and Best Practices for Developers of Numerical Models." In AGU Fall Meeting Abstracts, 2019:IN21D-0882.
- Kettner, Albert, Gregory E Tucker, Irina Overeem, Tian Gan, Eric Hutton, and Mark Piper. 2022. "Overcoming Challenges in Adopting FAIR Principals for Community Open-Source Software." In AGU Fall Meeting Abstracts, 2022:IN35B-0409.

- Kettner, Albert, Gregory Tucker, Irina Overeem, Eric Hutton, Mark Piper, Tian Gan, and Benjamin Campforts. 2021. "Making Earth Surface Community Software More FAIR." In AGU Fall Meeting Abstracts, 2021:IN55C-01.
- Kubo, JP Syvitski, EW Hutton, and AJ Kettner. 2005. "Modeling of Evolution of Transgressive Sediments on the Northern Adriatic Sea After the Last Glacial Maximum." In *Final Eurostrataform Meeting, Salamanca, Spain*.
- Kubo, JP Syvitski, EW Hutton, and S Tanabe. 2006. "Numerical Modeling of Incised-Valley Deposits in Tokyo Lowland for the Last 13 Kyrs." In AGU Fall Meeting Abstracts, 2006:OS31A-1617.
- Lee, HJ, J Syvitski, E Hutton, G Parker, D Orange, J Locat, and J Imran. 2001. "Distinguishing Submarine Landslide Deposits from Migrating Sediment Wave Fields." In AGU Fall Meeting Abstracts, 2001:H22G-03.
- Little, Zachary Hunter-Lee, Katherine M Ratliff, Eric Hutton, and A Brad Murray. 2018. "Modeling River Delta Evolution Under Different Wave Climates." In AGU Fall Meeting 2018. AGU.
- Murray, A Brad, Katherine Ratliff, Eric Hutton, and Ningjie Hu. 2021. "Might Geometric Effects Localize Avulsions on River Deltas?" In AGU Fall Meeting Abstracts, 2021:EP51C-05.
- Murray, AB, KM Ratliff, and E Hutton. 2017. "New Insights about Large-Scale Delta Morphodynamics from a Coupled Model of Fluvial-Coastal Processes." In AGU Fall Meeting Abstracts, 2017:EP21B–1844.
- Nudurupati, Sai Siddhartha, Erkan Istanbulluoglu, Jordan Marie Adams, Daniel EJ Hobley, Nicole M Gasparini, Gregory E Tucker, and EWH Hutton. 2014. "Modeling Elevation and Aspect Controls on Emerging Ecohydrologic Processes and Ecosystem Patterns Using the Component-Based Landlab Framework." In AGU Fall Meeting Abstracts, 2014:H31G–0695.
- ———. 2015. "Elevation Control on Vegetation Organization in a Semiarid Ecosystem in Central New Mexico." In AGU Fall Meeting Abstracts, 2015:H11C-1359.
- Nudurupati, S, E Istanbulluoglu, JM Adams, NM Gasparini, GE Tucker, E Hutton, and DE Hobley. 2013. "Landlab Ecohydrology: A Component-Based Computational Environment for Ecohydrologic Modeling and Its Illustrations Through Model Building." In *AGU Fall Meeting Abstracts*, 2013:EP33A–0867.
- Overeem, Irina, Erik Hutton, Albert Kettner, Scott Peckham, and James Syvitski. 2012. "The Community Surface Dynamics Modeling System: Experiences on Building a Collaborative Modeling Platform." In AGU Fall Meeting Abstracts, 2012:IN54A-06.
- Overeem, Irina, Mark Piper, Albert Kettner, Eric Hutton, and Courtney Kay Harris. 2018. "Teaching with Numerical Models in the Earth Surface Processes." In AGU Fall Meeting Abstracts, 2018:ED44B–22.
- Peckham, SD, and E Hutton. 2009. "Componentizing, Standardizing and Visualizing: How CSDMS Is Building a New System for Integrated Modeling from Open-Source Tools and Standards." In AGU Fall Meeting Abstracts, 2009:IN11A-1045.
- Piper, Mark, Eric Hutton, and James P Syvitski. 2016. "A Python Interface for the Dakota Iterative Systems Analysis Toolkit." In AGU Fall Meeting Abstracts, 2016:H34E-06.
- Piper, Mark, Eric Hutton, and Gregory E Tucker. 2022. "The (Bright) Future of the Basic Model Interface (BMI)." In AGU Fall Meeting Abstracts, 2022:EP25D–1432.
- Piper, Mark, EWH Hutton, Irina Overeem, and James P Syvitski. 2015. "WMT: The CSDMS Web Modelling Tool." In 2015 Fall Meeting, AGU, San Francisco, CA, USA, 14–18.
- Pritchard, Calvin, Cheryl Porter, Eric Hutton, and C Michael Barton. 2021. "A Basic Modeling Interface Extension to Support Data Interoperability in Coupled Simulation Workflows." In *AGU Fall Meeting Abstracts*, 2021:IN25B-0458.
- Ratliff, Katherine M, Eric Hutton, and A Brad Murray. 2016. "Exploring Large-Scale Delta Morphodynamics with a Coupled Fluvial-Coastal Model." In AGU Fall Meeting Abstracts, 2016:GC23D–1268.
- ———. 2017. "New Insights about Large-Scale Delta Morphodynamics from a Coupled Model of Fluvial-Coastal Processes." In 2017 AGU Fall Meeting. AGU.
- Ratliff, Katherine M, EWH Hutton, and A Brad Murray. 2015. "River-Ocean Interactions: A Coupled Morphodynamic Delta Model." In AGU Fall Meeting Abstracts, 2015:EP23B-0975.
- Ratliff, Katherine M, A Brad Murray, EWH Hutton, Anastasia Piliouras, and Wonsuck Kim. 2014. "Medium-Detail Delta Morphodynamic Modeling: Initial Experiments with Avulsion Behaviors, Sediment Delivery, Artificial Leeves, and Relative Sea Level Rise Rates." In AGU Fall Meeting Abstracts, 2014:EP41A–3499.
- Steckler, Michael S, Eric Hutton, David Ologan, Gregory E Tucker, Céline Grall, and Savas Gurcay. 2019. "Developing Sequence Stratigraphic Modeling in Landlab to Improve Understanding of the Tectonics in the Gulf of Kusadasi, Turkey." In *AGU Fall Meeting Abstracts*, 2019:EP21D–2227.

- Syvitski, James P, Hernan Arango, Courtney Kay Harris, Eckart Heinz Meiburg, Chris J Jenkins, Guillermo Auad, Eric Hutton, Tara A Kniskern, and Senthilkumaran Radhakrishnan. 2016. "From DNS to RANS: A Multi-Model Workflow to Understand the Influence of Hurricanes on Generating Turbidity Currents in the Gulf of Mexico." In AGU Fall Meeting Abstracts, 2016:EP51C-01.
- Syvitski, James P, Eric W H Hutton, Mark D Piper, Irina Overeem, Albert J Kettner, and Scott D Peckham. 2014. "Plug and Play Component Modeling-the CSDMS2. 0 Approach." In *International Environmental Modelling and Software Society (iEMSs)* 7th Intl. Congress on Env. Modelling and Software, San Diego, CA, USA.
- Syvitski, James PM, Eric WH Hutton, and INSTAAR CU-Boulder. 2007. "New Closure Schemes in 3D SedFlux for the Simulation of Deltas." In 2007 AAPG Annual Convention and Exhibition.
- Syvitski, James PM, Eric WH Hutton, and Yusuke Kubo. 2006. "Modeling of Evolution of Transgressive Sediments on the Northern Adriatic Sea After the Last Glacial Maximum." In AAPG 2006 Annual Convention, Houston, TX, USA.
- Syvitski, James PM, Damian B O92Grady, and Eric WH Hutton. 2001. "Equilibrium Slopes of Continental Margins." In American Association of Petroleum Geologists Annual Convention Program with Abstracts a. Vol. 197.
- Syvitski, James, Chris Jenkins, Eckart Meiburg, Hernan Arango, Courtney Harris, Guillermo Auad, Eric Hutton, Tara Kniskern, Justin Birchler, and Senthil Radhakrishnan. 2016. "Modelling Extreme Events (Hurricanes) at the Seafloor in the Gulf of Mexico." In 2016 Ocean Sciences Meeting. AGU.
- Syvitski, JP, M Hannon, AJ Kettner, CJ Jenkins, and EW Hutton. 2007. "Morphodynamics of River Lowlands and Deltas: Combining Historical Maps with Satellite Data." In *AGU Fall Meeting Abstracts*, 2007:H34C-02.
- Syvitski, JP, E Hutton, SD Peckham, I Overeem, and A Kettner. 2012. "CSDMS2. 0: Computational Infrastructure for Community Surface Dynamics Modeling." In AGU Fall Meeting Abstracts, 2012:IN51D-1707.
- Syvitski, JP, and Eric WH Hutton. 1998. "The Link Between Abrupt Climate Change and Basin Stratigraphy: A Numerical Approach." In Program and Abstracts International Conference on Recognition of Abrupt Climate Change in Clastic Sedimentary Environments: Methods, Limitations and Potential. Stockholm.
- Syvitski, JP, and EW Hutton. 2001. "Sediment Transport Variability in Global Rivers: Implications for the Interpretation of Paleoclimate Signals." In AGU Fall Meeting Abstracts, 2001:OS41B–01.
- Syvitski, JPM, HG Arango, CK Harris, EH Meiburg, CJ Jenkins, EWH Hutton, G Auad, and F Xing. 2016. "Keynote Speech-Modeling of Sediment Transport in the Gulf of Mexico Due to the Influence of Hurricanes." In Second Conference on Forward Modelling of Sedimentary Systems, cp-483. European Association of Geoscientists & Engineers.
- Tucker, GE, DE Hobley, NM Gasparini, E Hutton, E Istanbulluoglu, S Nudurupati, and JM Adams. 2013. "Creative Computing with Landlab: Open-Source Python Software for Building and Exploring 2D Models of Earth-Surface Dynamics." In *AGU Fall Meeting Abstracts*, 2013:EP31D–02.
- Tucker, Gregory E, Jordan Marie Adams, Sandra G Doty, Nicole M Gasparini, Mary C Hill, Daniel EJ Hobley, Eric Hutton, Erkan Istanbulluoglu, and Sai Siddhartha Nudurupati. 2016. "Using the Landlab Toolkit to Evaluate and Compare Alternative Geomorphic and Hydrologic Model Formulations." In AGU Fall Meeting Abstracts, 2016:H43P-07.
- Tucker, Gregory E, Eric Hutton, Mark Piper, Albert Kettner, Irina Overeem, Tian Gan, and Benjamin Campforts. 2022. "OpenEarthscape and CSDMS: Modeling Resources by and for the Earth and Planetary Surface Processes Community." In AGU Fall Meeting Abstracts, 2022:EP25D-1433.
- Tucker, Gregory E, Mark Piper, Irina Overeem, Albert Kettner, Tian Gan, Eric Hutton, and Benjamin Campforts. 2020. "Applying FAIR Principles to Numerical Modeling: Lessons from CSDMS." In AGU Fall Meeting Abstracts, 2020:IN016–10.
- Tucker, Gregory, Albert Kettner, Eric Hutton, Mark Piper, Tian Gan, Benjamin Campforts, Irina Overeem, and Matthew Rossi. 2023. "Lessons in FAIR Software from the Community Surface Dynamics Modeling System." In EGU General Assembly Conference Abstracts, EGU–3711.
- Xing, F, AJ Kettner, AD Ashton, E Hutton, and J Syvitski. 2011. "Exploring River-Wave Dominated Delta Evolution Applying a Model-Coupling Approach." In AGU Fall Meeting Abstracts, 2011:H54E-02.

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. Istanbulluoglu, 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 (CS-DMS). 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. (http://github.com/landlab/landlab).
- BMI (The Basic Model Interface): project leader and developer. First publication 2012. Under active development.
 (http://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).