

DAVID G TARBOTON

Director, Utah Water Research Laboratory
Sant Endowed Professor of Water Resources Engineering
Civil and Environmental Engineering
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Professional Preparation

University of Natal, Durban, South Africa	Civil Engineering	BSc Eng	1981
University of South Africa, Pretoria, South Africa	Datametrics	Diploma	1984
Massachusetts Institute of Technology, Cambridge, MA	Civil Engineering	MS	1987
Massachusetts Institute of Technology, Cambridge, MA	Civil Engineering	ScD	1990

Appointments

2019-present	Director, Utah Water Research Laboratory, Utah State University
2022-present	Sant Endowed Professor of Water Resources Engineering
2001-present	Professor, Civil and Environmental Engineering, Utah Water Research Laboratory, Utah State University.
9/2014-5/2015	Sabbatical visiting professor, University of North Carolina at Chapel Hill.
1997-2001	Associate Professor, Civil and Environmental Engineering, Utah Water Research Laboratory, Utah State University
9/1997-6/1998	Visiting scientist at the National Institute for Water and Atmospheric Research, Christchurch, New Zealand (sabbatical leave)
1990-1996	Assistant Professor, Civil and Environmental Engineering, Utah Water Research Laboratory, Utah State University

Selected Refereed Publications

- Gallagher, M. A., E. H. Habib, D. Williams, B. Lane, J. L. Byrd and D. Tarboton, (2022), "Sharing Experiences in Designing Professional Learning to Support Hydrology and Water Resources Instructors to Create High-Quality Curricular Materials," Frontiers in Education, 7: 890379, <http://doi.org/10.3389/educ.2022.890379>.
- Goeking, S. A. and D. G. Tarboton, (2022), "Variable Streamflow Response to Forest Disturbance in the Western US: A Large-Sample Hydrology Approach," Water Resources Research, 58(6): e2021WR031575, <https://doi.org/10.1029/2021WR031575>.
- Garousi-Nejad, I. and D. G. Tarboton, (2022), "A comparison of National Water Model retrospective analysis snow outputs at snow telemetry sites across the Western United States," Hydrological Processes, 36(1): e14469, <https://doi.org/10.1002/hyp.14469>.
- Lane, B., I. Garousi-Nejad, M. Gallagher, D. Tarboton and E. Habib, (2021), "An open web-based module developed to advance data-driven hydrologic process learning," Hydrological Processes, 35(7): e14273, <https://doi.org/10.1002/hyp.14273>.
- Merck, M. F., M. A. Gallagher, E. Habib and D. Tarboton, (2021), "Engineering Students' Perceptions of Mathematical Modeling in a Learning Module Centered on a Hydrologic Design Case Study," International Journal of Research in Undergraduate Mathematics Education, <http://doi.org/10.1007/s40753-020-00131-8>.

- Gan, T., D. G. Tarboton, J. S. Horsburgh, P. Dash, R. Idaszak and H. Yi, (2020), "Collaborative sharing of multidimensional space-time data in a next generation hydrologic information system," *Environmental Modelling & Software*, 129: 104706, <https://doi.org/10.1016/j.envsoft.2020.104706>.
- Goeking, S. A. and D. G. Tarboton, (2020), "Forests and Water Yield: A Synthesis of Disturbance Effects on Streamflow and Snowpack in Western Coniferous Forests," *Journal of Forestry*, 118(2): 172–192, <http://doi.org/10.1093/jofore/fvz069>.
- Gichamo, T. Z. and D. G. Tarboton, (2019), "Ensemble Streamflow Forecasting using an Energy Balance Snowmelt Model Coupled to a Distributed Hydrologic Model with Assimilation of Snow and Streamflow Observations," *Water Resources Research*, 55, <https://doi.org/10.1029/2019WR025472>
- Garousi-Nejad, I., D. G. Tarboton, M. Aboutalebi and A. F. Torres-Rua, (2019), "Terrain Analysis Enhancements to the Height Above Nearest Drainage Flood Inundation Mapping Method," *Water Resources Research*, 55(10): 7983– 8009, <http://doi.org/10.1029/2019WR024837>.
- Horsburgh, J. S., M. M. Morsy, A. M. Castronova, J. L. Goodall, T. Gan, H. Yi, M. J. Stealey and D. G. Tarboton, (2016), "HydroShare: Sharing Diverse Environmental Data Types and Models as Social Objects with Application to the Hydrology Domain," *JAWRA Journal of the American Water Resources Association*, <http://dx.doi.org/10.1111/1752-1688.12363>.

Professional Service and Synergistic Activities

- Lead PI on the development of HydroShare platform for hydrologic data and model sharing, publication and collaboration (<http://www.hydroshare.org>). Code at <https://github.com/hydroshare>. NSF ACI 1148453, OAC 1664061.
- Developed and support the TauDEM free open and source software (<http://hydrology.usu.edu/dtarb/tauDEM>) for terrain analysis and watershed delineation.
- Community Advisory Committee for Water Prediction for NOAA National Water Center, Appointed December 2017. <https://cpaess.ucar.edu/cac-wp/membership>

Selected current grants

- National Science Foundation. HDR Institute: Geospatial Understanding through an Integrative Discovery Environment, \$1,266,964 to USU from \$15 million, Shaowen Wang, Mohan Ramamurthy, Deanna Hence, Xiaohui Song, David Tarboton, subcontract from the University of Illinois, 10/1/2021-9/30/2026. NSF Award OAC 2118329.
- US Bureau of Reclamation. Cataloguing and Generating Hydrology Scenarios in the Colorado River, \$198,571, David Tarboton, 8/1/2021-7/31/2023. US. Dept of Interior grant R21AC10342-00.