Resume - David G. Tarboton

March 2017

Professor, Utah Water Research Laboratory and Department of Civil and Environmental Engineering, Utah State University.

Address:
Utah Water Research Laboratory
Department of Civil and Environmental Engineering
Utah State University
Logan, UT, 84322-4110

Phone: (435)-797-3172
Email: dtarb@usu.edu
http://hydrology.usu.edu/dtarb/

Education:

Sc.D., Civil Engineering (Water Resources and Hydrology), Massachusetts Institute of Technology, September 1989, Dissertation: The analysis of river basins and channel networks using digital terrain data, Advisor: Rafael Bras.

M.S., Civil Engineering, Massachusetts Institute of Technology, May 1987, Thesis: Hydrologic sampling: A characterization in terms of rainfall and basin properties, Advisor: Rafael Bras.

Diploma in Datametrics, (Computer Science), University of South Africa, December 1984.

B.Sc Eng, Civil Engineering, University of Natal, Durban, South Africa, December 1981.

Professional Experience:

February 1990 to Present, Assistant to Associate to Full Professor, Utah Water Research Laboratory and Department of Civil and Environmental Engineering, Utah State University.

August 2014 to May 2015, Visiting professor at the University of North Carolina, Chapel Hill, while on sabbatical leave from Utah State University.

November 1997 to June 1998, Visiting scientist at the National Institute for Water and Atmospheric Research, Christchurch, New Zealand, while on sabbatical leave from Utah State University.

Honors and Awards

Consortium of Universities for the Advancement of Hydrologic Science Inc., Community Service Award 2016.

Utah State University Robins Award, Faculty Researcher of the Year 2015

Utah State University College of Engineering Outstanding Researcher 2014-2015

American Water Resources Association, Utah Section, Award for Outstanding Service in the Academic Sector of Utah's Water Resources Community, May 15, 2007.

Utah State University College of Engineering Outstanding Researcher 2004-2005.

American Geophysical Union Editors Citation for Excellence in Refereeing for outstanding service to the authors and readers of Water Resources Research, 1993.

Selected Refereed Publications (from over 70 total refereed. Many available online at http://hydrology.usu.edu/dtarb/)

Idaszak, R., D. G. Tarboton, H. Yi, L. Christopherson, M. J. Stealey, B. Miles, P. Dash, A. Couch, C. Spealman, D. P. Ames and J. S. Horsburgh, (2016), "HydroShare - A case study of the application of modern software engineering to a large distributed federally-funded scientific software development project," Chapter 10 in Software Engineering for Science,

Edited by J. Carver, N. P. C. Hong and G. K. Thiruvathukal, Taylor&Francis CRC Press, p.219-236

Horsburgh, J. S., A. K. Aufdenkampe, E. Mayorga, K. A. Lehnert, L. Hsu, L. Song, A. S. Jones, S. G. Damiano, D. G. Tarboton, D. Valentine, I. Zaslavsky and T. Whitenack, (2016), "Observations Data Model 2: A community information model for spatially discrete Earth observations," Environmental Modelling & Software, 79: 55-74, http://dx.doi.org/10.1016/j.envsoft.2016.01.010.

Horsburgh, J. S., M. M. Morsy, A. M. Castronova, J. L. Goodall, T. Gan, H. Yi, M. J. Stealey and D. G. Tarboton, (2015), "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

Sen Gupta, A., D. G. Tarboton, P. Hummel, M. E. Brown and S. Habib, (2015), "Integration of an energy balance snowmelt model into an open source modeling framework," Environmental Modelling & Software, 68: 205-218, http://dx.doi.org/10.1016/j.envsoft.2015.02.017.

You, J., D. G. Tarboton and C. H. Luce, (2014), "Modeling the snow surface temperature with a one-layer energy balance snowmelt model," Hydrol. Earth Syst. Sci., 18(12): 5061-5076, http://dx.doi.org/10.5194/hess-18-5061-2014.

Tarboton, D. G., R. Idaszak, J. S. Horsburgh, J. Heard, D. Ames, J. L. Goodall, L. Band, V. Merwade, A. Couch, J. Arrigo, R. Hooper, D. Valentine and D. Maidment, (2014), "HydroShare: Advancing Collaboration through Hydrologic Data and Model Sharing," in D. P. Ames, N. W. T. Quinn and A. E. Rizzoli (eds), Proceedings of the 7th International Congress on Environmental Modelling and Software, San Diego, California, USA, International Environmental Modelling and Software Society (iEMSs), ISBN: 978-88-9035-744-2, http://www.iemss.org/sites/iemss2014/papers/iemss2014_submission_243.pdf.

Mohammed, I. N. and D. G. Tarboton, (2014), "Simulated watershed responses to land cover changes using the Regional Hydro-Ecological Simulation System," Hydrological Processes, 28(15): 4511-4528, http://dx.doi.org/10.1002/hyp.9963.

Mahat, V. and D. G. Tarboton, (2012), "Canopy radiation transmission for an energy balance snowmelt model," Water Resour. Res., 48: W01534, http://dx.doi.org/10.1029/2011WR010438.

Tarboton, D. G., D. Maidment, I. Zaslavsky, D. Ames, J. Goodall, R. P. Hooper, J. Horsburgh, D. Valentine, T. Whiteaker and K. Schreuders, (2011), "Data Interoperability in the Hydrologic Sciences, The CUAHSI Hydrologic Information System," Proceedings of the Environmental Information Management Conference 2011, 132-137, http://eim.ecoinformatics.org/eim2011/eim-proceedings-2011/view.

Tesfa, T. K., D. G. Tarboton, D. W. Watson, K. A. T. Schreuders, M. E. Baker and R. M. Wallace, (2011), "Extraction of hydrological proximity measures from DEMs using parallel processing," Environmental Modelling & Software, 26(12): 1696-1709, http://dx.doi.org/10.1016/j.envsoft.2011.07.018.

Horsburgh, J. S., D. G. Tarboton, D. R. Maidment and I. Zaslavsky, (2008), "A Relational Model for Environmental and Water Resources Data," Water Resour. Res., 44: W05406, http://dx.doi.org/10.1029/2007WR006392.

Tarboton, D. G., (1997), "A New Method for the Determination of Flow Directions and Contributing Areas in Grid Digital Elevation Models," Water Resources Research, 33(2): 309-319.