

Marcia L. Branstetter

Research Staff Member

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Education and Training

2001 University of Texas-Austin, Hydrology, PhD
1995 University of Texas-Austin, Mathematics, MA
1986 Southwestern University, Mathematics, BS

Research and Professional Experience

2003-Present(?) Research Staff Member. Computer Science and Mathematics Division, Oak Ridge National Laboratory.
2001-2003(?) Postdoctoral Research Scientist. Computer Science and Mathematics Division, Oak Ridge National Laboratory
1995-2001 Graduate Fellow. Dept. of Geological Sciences, University of Texas.
1994-1995 Graduate Research Assistant. Dept. of Mathematics, University of Texas.

Publications

1. Ganguly, Auroop R., S. Khan, G. Kuhn, Y. Fang, D. J. Erickson, M. L. Branstetter, and G. Ostrouchov, "Climate change, rainfall extremes, and population at risk," to be presented at the 22nd Conference on Hydrology, 88th Annual Meeting of the American Meteorological Society, New Orleans, 2008.
2. Larson, J.W., A.P. Craig, J.B. Drake, D.J. Erickson III, M.L. Branstetter, M.W. Ham, "A massively parallel dynamical core for continental-to-global scale river transport," 2007.
Branstetter, Marcia L., David J. Erickson, Auroop Ganguly, Gabriel Kuhn, Shiraj Khan, and Christopher T. Fuller, "Extreme hydrologic events in CCSM3," presented at the Annual CCSM Workshop, Breckenridge, 2007.
3. Kuhn, Gabriel, Shiraj Khan, Auroop R. Ganguly, and Marcia L. Branstetter, "Geospatial- temporal dependence among weekly precipitation extremes with applications to observations and climate model simulations in South America," *Advances in Water Resources*, in press, 2007.
4. Branstetter, Marcia L., David J. Erickson III, Auroop Ganguly, Shiraj Khan, Gabriel Kuhn, George Ostrouchov, Christopher T. Fuller, "Extreme hydrologic events from an ensemble of CCSM3 climate change simulations," presented at the American Meteorological Society Annual Meeting, San Antonio, 2007.
5. Branstetter, Marcia L., David J. Erickson III, Jose Hernandez, and Robert J. Oglesby, "Spatial resolution and precipitation impacts on the magnitude and variability of river discharge in the CCSM3 control simulation," submitted to *Journal of Hydrology*, 2007.
6. Branstetter, Marcia L., David J. Erickson, Steve Ghan, Auroop Ganguly, and Shiraj Khan, "Hydrology in the IPCC simulations," presented at the Annual CCSM Workshop, Breckenridge, 2006.
7. Samatova, Nagiza F., Marcia Branstetter, Auroop R. Ganguly, Robert Hettich, Shiraj Kan, Guruprasad Kora, Jiangtian Li, Xiaosong Ma, Chongle Pan, Arie Shoshani and Srikanth Yoginath, "High performance statistical computing with parallel R: applications to biology and climate modeling," *Journal of Physics: Conference Series* 46 (2006) 505-509.
8. Erickson, D., M. Branstetter, and R. Oglesby, "Non-linear feedbacks in the future hydrologic cycle," presented at the 2005 Fall AGU Meeting, San Francisco, 2005.
Smith, B.T., A.W. King, M.L. Branstetter, C.C. Coutant, P.J. Mulholland, and M.J. Sale, "The Role of Climate Change in Thermoelectric Cooling Water Systems," abstract submitted to CCSP Workshop, 2005.
9. Branstetter, Marcia L., David J. Erickson III, and Robert Oglesby, "Spatial resolution impacts on the magnitude and variability of continental runoff in the CCSM3 control simulation," submitted to *Journal of Geophysical*

Research-Atmosphere, 2005.

10. Branstetter, Marcia L., David J. Erickson III, and Steve Ghan, "Hydrology Results from CCSM3 Control and Select IPCC Simulations," presented at the Annual CCSM Workshop, Breckenridge, 2005.
11. Pan, F., D.J. Erickson III, M. Branstetter, A.W. King, R.J. Oglesby, M. Wolinsky, and M.J. Sale, "The effect of soil conductivity on the hydrologic cycle and surface energy budget in the CCSM2: Implementation of a TOPMODEL concept in a global GCM," to be submitted to *Journal of Geophysical Research-Atmospheres*, 2005.

Fellowships and Awards

AMS Global Change Scholarship (2000)

DOE Graduate Research Environmental Fellowship (1999-2001)

NASA Graduate Student Researchers Program/HPCC Fellowship (1996-1999)

NSF Graduate Research Traineeship in Hydrology (1995-1996)

Graduate and Postdoctoral Advisors

Dissertation Advisor: Dr. Jay Famiglietti (University of California-Irvine)