Two-page Curriculum vitae

Forrest M. Hoffman

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Education

M.S., Physics, 2004. University of Tennessee, Knoxville, TN
Advisor: Dr. William E. Blass, Department of Physics and Astronomy
Research Focus: Infrared spectroscopy and atmospheric spectroscopy
Thesis: *Analysis of Reflected Spectral Signatures and Detection of Geophysical Disturbance Using Hyperspectral Imagery*

B.S., Physics, 1991. University of Tennessee, Knoxville, TN
Advisor: Dr. William E. Blass, Department of Physics and Astronomy
Research Focus: Astronomical photometry research and software for data reduction and analysis

Employment

November 1993 – present: **Computational Climate Scientist**, joint appointments in the Computer Science & Mathematics Division and the Environmental Sciences Division, Oak Ridge National Laboratory, Oak Ridge, Tennessee.

January 2002 – October 2006: **Contributing Editor and Columnist**, "Extreme Linux" column, *Linux Magazine*.

July 1992 – November 1993: **Scientific Programmer/Analyst**, Department of Geological Sciences, University of Tennessee, position at Environmental Sciences Division, Oak Ridge National Laboratory, Oak Ridge, Tennessee.

May 1989 – June 1992: **Knowledge Engineer**, Automated Sciences Group, Inc., position at Environmental Sciences Division, Oak Ridge National Laboratory, Oak Ridge, Tennessee.

September 1988 – May 1989: **Researcher Intern**, Oak Ridge Associated Universities (ORAU), position at Environmental Sciences Division, Oak Ridge National Laboratory, Oak Ridge, Tennessee.

1987 – September 1988: **Observer/Telescope Operator**, High Altitude Observatory, National Center for Atmospheric Research, position at Mauna Loa Solar Observatory, Hilo, Hawai'i.

Honors and Awards

ORNL Outstanding Mentor Award. Oak Ridge National Laboratory and Oak Ridge Associated Universities, February 2008.

Significant Event Award for contribution to NSF's National Ecological Observatory Network (NEON) Design Committee. Oak Ridge National Laboratory/UT-Battelle, LLC, March 2006.

Outstanding Paper in the Discipline of Landscape Ecology. W. W. Hargrove, F. M. Hoffman and P. M. Schwartz, "A fractal landscape realizer for generating synthetic maps," *Conserv. Ecol.* 6(1):2 (2002).

Awarded by the International Association for Landscape Ecology, U. S. Regional Chapter, April 2004.

Selected Publications

Silvia Kloster, Natalie M. Mahowald, James T. Randerson, Peter E. Thornton, Forrest M. Hoffman, Samuel Levis, Peter J. Lawrence, Johan J. Feddema, Keith W. Oleson, and David M. Lawrence. Fire dynamics during the 20th century simulated by the Community Land Model. *Biogeosci.*, 7(6):1877–1902, June 2010. doi:10.5194/bg-7-1877-2010.

James T. Randerson, Forrest M. Hoffman, Peter E. Thornton, Natalie M. Mahowald, Keith Lindsay, Yen-Huei Lee, Cynthia D. Nevison, Scott C. Doney, Gordon Bonan, Reto Stöckli, Curtis Covey, Steven W. Running, and Inez Y. Fung. Systematic assessment of terrestrial biogeochemistry in coupled climate-carbon models. *Global Change Biol.*, 15(10):2462–2484, October 2009. ISSN 1365-2486. doi:10.1111/j.1365-2486.2009.01912.x.

David J. Erickson III, Richard T. Mills, Jay Gregg, T. J. Blasing, Forrest M. Hoffman, Robert J. Andres, Matthew Devries, Z. Zhu, and S. R. Kawa. An estimate of monthly global emissions of anthropogenic CO_2: Impact on the seasonal cycle of atmospheric CO_2. *J. Geophys. Res.*, 113(G1):G01023, March 2008. doi:10.1029/2007JG000435.

Forrest M. Hoffman, Curtis C. Covey, Inez Y. Fung, James T. Randerson, Peter E. Thornton, Yen-Huei Lee, Nan A. Rosenbloom, Reto C. Stöckli, Steven W. Running, David E. Bernholdt, and Dean N. Williams. Results from the Carbon-Land Model Intercomparison Project (C-LAMP) and availability of the data on the Earth System Grid (ESG). *J. Phys.: Conf. Ser.*, 78(1):012026, December 2007. doi: 10.1088/1742-6596/78/1/012026.

Robert E. Dickinson, Keith W. Oleson, Gordon Bonan, Forrest Hoffman, Peter Thornton, Mariana Vertenstein, Zong-Liang Yang, and Xubin Zeng. The Community Land Model and its climate statistics as a component of the Community Climate System Model. *J. Clim.*, 19(11):2302–2324, June 2006. doi: 10.1175/JCLI3742.1.

William W. Hargrove, Forrest M. Hoffman, and Paul F. Hessburg. Mapcurves: A quantitative method for comparing categorical maps. *J. Geograph. Syst.*, 8(2):187–208, July 2006. doi:10.1007/s10109-006-0025-x.

Forrest M. Hoffman, Mariana Vertenstein, Hideyuki Kitabata, and James B. White III. Vectorizing the Community Land Model (CLM). *Int. J. High Perf. Comput. Appl.*, 19(3):247–260, August 2005a. doi: 10.1177/1094342005056113.

Forrest M. Hoffman, William W. Hargrove, David J. Erickson, and Robert J. Oglesby. Using clustered climate regimes to analyze and compare predictions from fully coupled general circulation models. *Earth Interact.*, 9(10):1–27, August 2005b. doi:10.1175/EI110.1.

William W. Hargrove, Forrest M. Hoffman, and Rebecca A. Efroymson. A practical map-analysis tool for detecting potential dispersal corridors. *Landscape Ecol.*, 20(4):361–373, May 2005. doi: 10.1007/s10980-004-3162-y.

Michael A. White, Forrest Hoffman, William W. Hargrove, and Ramakrishna R. Nemani. A global framework for monitoring phenological responses to climate change. *Geophys. Res. Lett.*, 32(4):L04705, February 2005. doi:10.1029/2004GL021961.

Earl Saxon, Barry Baker, William Hargrove, Forrest Hoffman, and Chris Zganjar. Mapping environments at risk under different global climate change scenarios. *Ecol. Lett.*, 8(1):53–60, January 2005. doi: 10.1111/j.1461-0248.2004.00694.x.

William W. Hargrove and Forrest M. Hoffman. Potential of multivariate quantitative methods for delineation and visualization of ecoregions. *Environ. Manage.*, 34(Supplement 1):S39–S60, April 2004. doi: 10.1007/s00267-003-1084-0.

William W. Hargrove, Forrest M. Hoffman, and Paul M. Schwartz. A fractal landscape realizer for generating synthetic maps. *Conserv. Ecol.*, 6(1):2, February 2002. URL http://www.consecol.org/vol6/iss1/art2/. Part of Special Feature on Ralf Yorque Memorial Competition 2001.

William W. Hargrove, Forrest M. Hoffman, and Thomas Sterling. The do-it-yourself supercomputer. *Sci. Am.*, 265(2):72–79, August 2001. URL http://www.sciam.com/article.cfm?articleID=000E238B-33EC-1C6F-84A9809EC588EF21.