

Dr. Mark Greenwood

Assistant Professor
Department of Mathematical Sciences
P.O. Box 172400, Bozeman, MT, 59717-2400
(406) 994-1962
Email: greenwood AT math.montana.edu

EDUCATION

University of Wyoming, Laramie, WY
Ph.D. in Statistics 2004
Dissertation: *Functional data analysis for glaciated valley profile analysis*

University of Wyoming, Laramie, WY
M.S. in Statistics 2000
Thesis: *State space analysis of surface velocity and deformation of glaciers*

Luther College, Decorah, IA
B.A. in Math/Stat 1996
Minor: Economics

POSITIONS

Assistant Professor, Department of Math Sciences, Montana State University 2005-

Visiting Assistant Professor, Department of Math Sciences, Montana State University 2004-2005

Graduate Teaching Assistant, Department of Statistics, University of Wyoming 1996-1997; 1998-2004

Graduate Research Assistant, Department of Statistics, University of Wyoming (NSF EPSCOR Grant DMS-9704570) 1997-1998

AWARDS

- John P. Ellbogen Meritorious Classroom Teaching Award, University of Wyoming 2001
- Outstanding Master's Student Award, Department of Statistics, University of Wyoming 2000

RESEARCH INTERESTS

Functional data analysis, Model selection, State space modeling, Nonlinear models, Geological and Ecological applications of statistics

PUBLICATIONS

Refereed

Harper, J.T., Humphrey, N.F., and Greenwood, M. (2002). Basal conditions and glacier motion during the winter/spring transition, Worthington Glacier, Alaska, U.S.A. *Journal of Glaciology*. **48(160)**, 42-50.

Yamreudeewong, W., Lower, D., Kilpatrick, D., Enlow, A., Burrows, M., and Greenwood, M. (2003). Effect of levofloxacin coadministration on the International Normalized Ratios during Warfarin therapy. *Pharmacotherapy*. **23(3)**, 333-338.

Yamreudeewong, W., McPeak, D., and Greenwood, M. (2004). Formulary conversion from Doxazosin to Terazosin for the treatment of benign prostatic hyperplasia in a small Veterans Hospital. *Hospital Pharmacy*. **39**, 47-51.

Refereed, under preparation

Greenwood, M. and Humphrey, N.F. Sampling and Nonlinear Regression for Valley Elevation Cross-

Profiles. To be submitted to *Earth Surface*.

Greenwood, M. An application of classical clustering to functional data. To be submitted to the *Journal of Computational Statistics and Data Analysis*.

Proceedings

Greenwood, M. and Humphrey, N.F. (2002). Glaciated valley profiles: An application of nonlinear regression. *Computing Science and Statistics*. **34**, 452-460.

Greenwood, M. and Huzurbazar, S. (1999). Modeling borehole trajectories using state space models. *American Statistical Association: Proceedings of the Section on Bayesian Statistical Science*. 37-41.

Published Abstracts

Greenwood, M., Humphrey, N.F., and Huzurbazar, S. (2002). Statistical analysis for U and V shaped valley profiles. Presented at the American Geophysical Union Fall Meeting.

Huzurbazar, S., Greenwood, M., Harper, J.T., and Humphrey, N.F. (2001). Descriptive statistics for the analysis of borehole inclinometry data. Presented at the American Geophysical Union Fall Meeting.

Harper, J.T., Humphrey, N.F., and Greenwood, M. (1999). Time-space changes in the subglacial hydrological system: water pressure, deformation and sliding velocity, and time-lapse video in a network of glacier boreholes. *Abstracts with Programs, Geological Society of America*. **31**, A-257.

Book Review

Huzurbazar, S. and Greenwood, M. (2002). Review of Workshop Statistics: Discovery with Data, A Bayesian Approach. By James H. Albert and Allan J Rossman. *Technometrics*. **44(3)**, 493.

PRESENTATIONS

<i>Title TBD</i> , Montana State University-Bozeman, Department of Ecology	2006
<i>Title TBD</i> . Annual Meeting of the Montana Section of the American Statistical Association.	2006
<i>Predictive discrepancy using full cross-validation for regression models</i> , Joint Statistical Meetings	2006
<i>A Brief Intro to Functional Data Analysis</i> . Annual Meeting of the Montana Section of the American Statistical Association.	2005
<i>Statistical Methods for Valley Elevation Cross-Profiles</i> . University of Montana Department of Mathematical Sciences.	2005
<i>U and V-shaped Valley Profiles and Careers in Statistics</i> . Presentation to AP Statistics Courses, Central Campus, Des Moines, IA	2005
<i>Functional Data Analysis for Valley Elevation Cross-Profiles</i> . University of Nevada, Reno Department of Mathematics and Statistics.	2005
<i>Functional Data Analysis for Valley Elevation Cross-Profiles</i> . Montana State University, Department of Mathematical Sciences.	2005
<i>Functional data analysis for glaciated valley profile analysis</i> . University of Wyoming, Department of Statistics, Ph.D. defense.	2004
<i>Statistical analysis of valley profiles</i> . University of Wyoming, Department of Statistics.	2004
<i>Data analysis for valley cross-profiles</i> . Oberlin College, Department of Mathematics.	2004
<i>Functional data analysis for glaciated valley profiles</i> . Williams College, Department of	2004

Mathematics and Statistics.	
<i>Nonlinear regression for describing glaciated valley profiles.</i> 34 th Symposium on the Interface of Computing Science and Statistics, Montreal, Canada.	2002
Panel speaker at the Graduate Student Teaching Seminar for the UW Graduate School.	2001
<i>State space analysis of surface velocity and deformation of glaciers.</i> University of Wyoming, Department of Statistics.	2000
<i>Modeling borehole trajectories with state space models.</i> Joint Statistical Meetings, Baltimore, MD.	1999
POSTER PRESENTATIONS	
<i>Functional clustering by shape of elevation profiles,</i> New Researchers in Probability and Statistics	2006
<i>Modeling shapes of valley profiles.</i> 1 st Annual Graduate Student Symposium, University of Wyoming.	2003
<i>Modeling shapes of valley profiles.</i> IMS Mini-Meeting on Functional Data Analysis, University of Florida, Gainesville, FL.	2003
<i>Statistical analysis for U and V shaped valley profiles.</i> American Geophysical Union, Fall Meeting, San Francisco, CA.	2002
RESEARCH FUNDING	
Summer funding from ...	2006
Research assistantship on NSF EPSCOR Grant DMS-9704570	1997- 1998
STATISTICAL CONSULTING	
<i>Ecological Time Series</i>	
Exploration of the use of state space models for modeling and prediction of herd counts of Elk, Pronghorn and Bison in Yellowstone with PJ White and Bob Garrott	2006-
<i>Pharmaceutical grant proposal</i>	
Evaluating the effects of Psyllium on Blood Glucose and Lipid in patients with Type 2 Diabetes Mellitus with Weeranuj Yamreudeewong, Katherine Morrell, Leslie Nutting, Ann Enlow, Dennis Lower, and David Kilpatrick. (Grant proposal funded)	2002
<i>Geological consulting</i>	
Worked with J. Harper (University of Montana Department of Geology) and N. Humphrey (University of Wyoming Department of Geology and Geophysics) on different geology and glaciology related statistical problems	1997 - Present
<i>Survey analysis</i>	
Analysis of survey of Wyoming Pharmacists, with Dr. K. London, University of Wyoming Department of Psychology	1999
<i>Bank customer service usage analysis</i>	
Time series analysis of AmerUs Bank customer service phone bank usage, performed under the supervision of Dr. G. Brill, Luther College	1995- 1996
PROFESSIONAL MEMBERSHIPS	
American Statistical Association, Montana Section of the ASA	
LEADERSHIP POSITIONS	
President, Montana Chapter of the American Statistical Association	2006- 2007

Montana Chapter Representative to the American Statistical Association	2006
Member of Search Committee for Visiting Position in Statistics, Montana State University	2006
Vice-President, Montana Chapter of the American Statistical Association	2005- 2006
Graduate Student Representative, University of Wyoming Department of Statistics	1998- 2002
Department of Statistics Representative to Arts & Sciences Student Council (UW)	1997- 2000