Curriculum Vitae

1. NAME AND POSITION

Crystal D. Linkletter, Ph.D.
Assistant Professor (Biostatistics), Department of Community Health

2. HOME ADDRESS

Center for Statistical Sciences
Box G-S121-7
Brown University
Providence, RI 02912
Tel: 401.863.6321
Fax: 401.863.9182
Email: cdlinkle@stat.brown.edu

3. EDUCATION

2000 B.Sc.H. Mathematics and Statistics Acadia University, Wolfville, NS

2003 M.Sc. Statistics Simon Fraser University, Burnaby, BC

2007 Ph.D. Statistics Simon Fraser University, Burnaby, BC

Dissertation: *Spatial Process Models for Social Network Analysis*
Advisor: Randy Sitter

4. PROFESSIONAL APPOINTMENTS

2001 – 2002 **Consultant**, QuestAir Technologies, Inc., Burnaby, BC

2003 – 2006 **Research Assistant** (multiple visits), Los Alamos National Laboratory, Los Alamos, NM

2007 – **Assistant Professor** (Tenure track)
Department of Community Health, Brown University

2007 – **Faculty Affiliate**
Spatial Structures for the Social Sciences, Brown University

2009 – **Faculty Affiliate**
Population Studies and Training Center, Brown University

5. PUBLICATIONS
C. Refereed journal articles

1. Linkletter, C., Bingham, D., Hengartner, N., Higdon, D. and Ye, K.Q. (2006). Variable selection for Gaussian process models in computer experiments. *Technometrics*, 48, 478-490.

   **Jack Youden award for best expository paper in 2006 Technometrics*

2. Linkletter, C.D. and Sitter, R.R. (2007). Predicting natural gas production in Texas: an application of nonparametric reporting lag distribution estimation. *Journal of Official Statistics*, 23, 239-251.

3. Linkletter, C.D. (2008). Social network analysis: practical and statistical challenges. *Health Services and Outcomes Research Methodology*, 8, 270-272.

4. Guillas, S., Rougier, J., Maute, A., Richmond, A.D. and Linkletter, C.D. (2009). Bayesian calibration of the thermosphere-ionosphere electrodynamics general circulation model (TIE-GCM). *Geoscientific Model Development,* 2, 137-144.

5. Dizon, D., Schutzer, M., Politi, M., Linkletter, C., Miller, S., and Clark, M. (2009). Advance care planning decisions of women with cancer: provider recognition and stability of choices. *J Psychosocial Oncology*, 27, 383-395.

6. Fiecas, M., Ombao, H., Linkletter, C., Thompson, W. and Sanes, J. (2010). Functional connectivity: Shrinkage estimation and randomization test. *NeuroImage,* 49, 3005-3014.

7. Clark, M., Linkletter, C., Wen, X., Miller, E., and Mor, V. (2010) Opinion networks among long-term care specialists, to appear in *Medical Care and Research Review.*

D. Non-refereed journal articles

1. Linkletter, C., Bingham, D., Sitter, R., Ye, K., Hengartner, N. and Higdon, D. (2003). Comparing designs of experiments for screening and prediction in computer experiments. Technical Report LA-UR-03-8524 Los Alamos National Laboratory

2. Linkletter, C., Bingham, D., Sitter, R., Ye, K., Hengartner, N. and Higdon, D. (2003). Screening and prediction in computer experiments. Proceedings of the Joint Army, Navy, NASA, Air Force Subcommittee on Modeling and Simulations, Colorado Springs, CO.

F. Abstracts

1. October 1999. *Parametric and nonparametric approaches to cyclic designs.* Atlantic Provinces Council on the Sciences Mathematics, Statistics and Computer Science Conference, St. John's, NF.

2. July 2003. *Prediction and screening in computer experiments*. Institute of Mathematical Sciences and International Society for Bayesian Analysis Joint Meeting, San Juan, Puerto Rico.

3. May 2006. *Compliance testing for random effects models with joint acceptance criterion*. Statistical Society of Canada Meeting, London, ON.

4. June 2007. *Variable selection for Gaussian process models in computer experiments*. Statistical Society of Canada Meeting, St. John's, NF.

G. Invited lectures

1. April 2003. Spring Meeting of the American Statistical Association Committee on Energy Statistics with the Energy Information Administration, Washington, DC.

2. July 2004. National Program on Complex Data Structures/SAMSI Workshop on the Design and Analysis of Computer Experiments for Complex Systems, Banff, AB.

3. June 2005. Statistical Society of Canada Meeting, Saskatoon, SK.

4. September 2006. Workshop for the Statistical and Applied Mathematical Sciences Institutes (SAMSI) Program on Development, Assessment, and Utilization of Complex Computer Models, Research Triangle Park, NC.

5. September 2006. Bell Labs, Murray Hill, NJ.

6. June 2007. Statistical Society of Canada Meeting, St. John's, NF.

7. August 2008. Joint Statistical Meeting, Denver, CO.

8. February 2009. Radcliffe Institute at Harvard University Exploratory Seminar in Statistical Modeling for Networks in the Biological, Computational, and Social Sciences, Cambridge, MA.

9. March 2009. ENAR International Biometric Society Meeting, San Antonio, TX.

10. March 2009. NICDS Workshop on Data Mining of Complex Data Structures, Ottawa ON.

11. March 2009. University of Toronto (Statistics), Toronto, ON.

12. September 2009. Workshop for the Statistical and Applied Mathematical Sciences Institutes (SAMSI) Program on Space-time Analysis for Environmental Mapping, Epidemiology and Climate Change, Research Triangle Park, NC.

13. March 2010. Renssaelaer Polytechnic Institute (Applied Math), Troy, NY.

14. April 2010. University of Massachusetts Amherst (Mathematics and Statistics), Amherst, MA.

15. April 2010. University of Minnesota (Biostatistics), Minneapolis, MN.

16. April 2010. Ohio State University (Statistics), Columbus, OH.

I. Works in review

8. Linkletter, C., Ranjan, P., Lin C., Bingham, D., Brenneman, W., Lockhart, R. and Loughin, T. (2010). Compliance testing for random effects models with joint acceptance criterion*. Tentatively accepted with revisions to Technometrics*.

9. Linkletter, C.D. and Sitter, R.R. (2010). Latent socio-spatial process model for social network analysis. *Submitted.*

J. Works in progress

1. Linkletter, C., Sitter, R. and Tang, B. Expected number of follow-up runs for two-level fractional factorial designs.

2. Gramacy, R., Linkletter, C. and Lee, H. Sequential design for constrained optimization by an integrated global expected improvement statistic.

3. Linkletter, C., Ombao, H. and Gorrostieta, C. VAR Models for fMRI data with subject-specific treatments.

6. RESEARCH GRANTS AND CONTRACTS
A. Current grants and contracts

1. **Spectral and connectivity analysis of non-stationary spatio-temporal data**
   Role: Co-Principal Investigator
   Agency: NSF DMS-0806106
   Period: 8/15/2008 – 8/14/2010
   Amount: $128,000

2. **Examining access to primary health care at the neighbourhood level**
   Role: Consulting Statistician
   Project PI: Scott Bell, University of Saskatchewan
   Agency: CIHR
   Period: 10/1/2008-9/30/2011
   Amount: $284,000

3. **Social networks and care planning for women with cancer**
   Role: Co-Investigator
   Project PI: Melissa Clark
   Agency: NIH 1R21CA137290
   Period: 4/1/2010-3/31/2012
   Amount: $256,000

C. Proposals submitted

1. **Muninn World War I project for Digging into Data Challenge**
   Role: Principal Investigator (US)
   Agency: NSF
   Amount: $100,000

2. **Statistical methods for network-based infectious disease models**
   Role: Principal Investigator
   Agency: Pew Scholar Program
   Amount: $240,000

3. **Understanding the impact of race/ethnicity on beliefs about biospeciment collection and use**
   Role: Investigator
   Project PI: Melissa Clark
   Agency: NIH challenge grant

4. **Competing Ethical Logics in Health Information Management: Investigating Divergent Approaches to IT Governance in American Hospitals**
   Role: Investigator
   Project PI: Mark Suchman
   Agency: NIH challenge grant

5. **Understanding Reversed Associations for Race/Ethnicity Via Multilevel Analysis**
   Role: Investigator
   Project PI: William Rakowski
   Agency: NIH R01

6. **Long Term Care Supports and Services: Needs and Preferences of Sexual Minority Seniors**
   Role: Investigator
   Project PI: Melissa Clark
   Agency: NIH R01

7. SERVICE

A. University Service (Brown University)

2007-09 **Graduate Curriculum Working Group**, S4
2008-09 **Junior Faculty Search Committee in Biostatistics**, Comm. Health
2008-09 **PhD Admissions Committee in Biostatistics**, Community Health
2008-09 **Graduate Curriculum Working Group**, Biostatistics
2008-09 **Organizer**, Statistics Seminar, Center for Statistical Science
2008- **Core Faculty Member**, Healthy Communities Initiative, Comm. Health
2008- **Co-founder**, Brown Working Group in Methods for Space-Time Data
2009-10 **Junior Faculty Search Committee in Epidemiology**, Comm. Health

B. Professional Service

2002 – **Peer Reviewer.** *Journal of the Royal Statistical Society (Series C), Health Services and Outcomes Research, Technometrics, Proceedings of the National Academy of Sciences, Journal of the American Statistical Association, Biostatistics*

8. ACADEMIC HONORS AND AWARDS

2000 University Scholar, Acadia University
2000 University Medal in Mathematics and Statistics, Acadia University

2000	Chipman Medal, Acadia University
2000 – 2002	Natural Science and Engineering Research Council of Canada Scholarship
2002	Graduate Fellowship, Simon Fraser University
2002	American Statistical Association/Energy Information Administration Fellowship
2003	C.D. Nelson Memorial Scholarship, Simon Fraser University
2003 – 2004	Natural Science and Engineering Research Council of Canada Scholarship
2005	Graduate Fellowship, Simon Fraser University
2006	Graduate Fellowship, Simon Fraser University
2007	American Society for Quality Control Jack Youden Prize
2008	Brown University ADVANCE Career Development Award

9. TEACHING

A. Courses Taught (enrollment following course number)

FA 2006	STAT 101 (~130)	Introduction to Statistics, Simon Fraser University
FA 2007	PHP 2530 (4)	Bayesian Statistical Methods, Brown University
SP 2008	PHP 2511 (13)	Applied Regression Analysis, Brown University
FA 2008	PHP 2604 (23)	Statistical Methods for Spatial Data, Brown
SP 2009	PHP 2511 (18)	Applied Regression Analysis, Brown University
FA 2009	PHP 2530 (21)	Bayesian Statistical Methods, Brown University
SP 2010	PHP 2511 (38)	Applied Regression Analysis, Brown University

B. Invited short course

January 2008 **Spatial Regression Analysis**
Spatial Structures for the Social Sciences (S4) GIS Institute

June 2008 **Spatial Regression Analysis**
Spatial Structures for the Social Sciences (S4) GIS Institute

January 2009 **Spatial Regression Analysis**
Spatial Structures for the Social Sciences (S4) GIS Institute

June 2009 **Spatial Regression Analysis**
Spatial Structures for the Social Sciences (S4) GIS Institute

January 2010 **Spatial Regression Analysis**
Spatial Structures for the Social Sciences (S4) GIS Institute

C. Mentorship

PhD Students

1. Andrea Austin (Advisor), Biostatistics
2. Miles Ott (Advisor), Biostatistics
3. Mark Fiecas (Co-advisor), Biostatistics
4. Hakmook Kang (Co-advisor), Biostatistics
5. Ann Mwangi (Committee), Biostatistics
6. Sze Liu (Committee), Epidemiology
7. Shirley Wang (Committee), Epidemiology
8. Stella Aslibekyan (Committee), Epidemiology
9. Amisha Parikh (Committee), Epidemiology
10. Nicholas Everage (Committee), Epidemiology

SM Students

1. Sangjin Kim (Reader), Biostatistics
2. Shirley Wang (Advisor), Biostatistics

MPH Students

1. Samantha Rosenthal (Reader)
2. Eddie Zhou (Reader)