

Curriculum Vitae

Paul Schliekelman

Associate Professor (with tenure)
Department of Statistics
University of Georgia
101 Cedar Street
Athens, GA 30602-1952
(706) 542-4241 (office)
(706) 542-3391 (fax)
pdschlie@stat.uga.edu

Education

North Carolina State University
Raleigh, North Carolina

Ph.D. in Biomathematics awarded May 2000. Co-advisors: Stephen Ellner and Fred Gould.

Master of Biomathematics awarded August 1998.

Iowa State University

Ames, Iowa

B.S. in Physics awarded May 1992.

Professional Experience

Associate Professor (with tenure), Department of Statistics, University of Georgia.
August 2007-present.

Assistant Professor, Department of Statistics, University of Georgia. August 2001 – August 2007.

Postdoctoral Fellow, Monty Slatkin's lab, Department of Integrative Biology, UC Berkeley, April 2000-July 2001.

North Carolina Agricultural Research Service Fellowship Student, North Carolina State University. 1997-1999.

Teacher (with the Peace Corps), Government High School of Nwa, Cameroon, West Africa. June 1993 - June 1995.

Honors and Awards

M.G. Michael Award, 2005 (College of Arts and Sciences award for innovative research)

Lucas Research Award (for most outstanding Ph.D. dissertation), 2000.

Lucas Award for the Outstanding First Year Student in Biomathematics, 1996.

North Carolina Agricultural Research Service Graduate Fellowship. 1997-1999.

Teaching Experience

University of Georgia, Athens Georgia

Statistics 6210: Statistical Methods I (4 times)

Statistics 6310: Statistical Analysis I (4 times)

Statistics 6630: Statistical Methods in Bioinformatics I (11 times)

Statistics 6640: Statistical Methods in Bioinformatics II (11 times)

Statistics 8090: Statistical Analysis of Genetic Data (5 times)

Statistics 8830: Advanced Applications and Computing (4 times)

FYOS1001: First Year Odyssey (2 times)

Professional Service

Treasurer, Georgia Chapter of the American Statistical Association. 2005-2008

Editorial Board, *Journal of Biological Systems*.

Publications

Peer reviewed:

(* indicates that I was the senior/corresponding author)

Schliekelman*, P. and Liu, S. (submitted). *Competition for Detection Between Peptides is a Major Source of Variation in Protein Detection Probabilities in Mass Spectrometry Based Proteomics*. *Journal of Proteome Research*.

Sun, G., Zhang, S., and Schliekelman, P.* (In Revision) *The Use of Genomewide Expression Data as an Indicator of Genetic Variation in Genome Scans: Part of the Solution to Missing Heritability?* *Genetic Epidemiology*

Uhl, E. W., Krimer, P., Schliekelman, P., Tomkins, M. S., Suter, S. (2011) *Analysis of miRNA Expression in Canine Lymphoid Cell Lines, and Clinical Cases of B and T Cell Lymphoma*. *Genes, Chromosomes and Cancer* 50(11): 950-967.

Sun, G. and Schliekelman*, P. (2011) . *A Genetical Genomics Approach to Genome Scans Increases Power for QTL Mapping*. *Genetics* 187: 939-953.

Schliekelman*, P. (2008) *Power of Expression QTLs for Mapping of Complex Trait Loci in Natural Populations*. *Genetics* 178(4): 2201-2216.

- Maduko, A., Anyanwu, K., Sheth, A., Schliekelman, P. (2008) *Graph Summaries for Subgraph Frequency Estimation*. Proceedings of the 5th European Semantic Web Conference 2008: 508-523.
- Maduko, A., Anyanwu, K., Sheth, A., Schliekelman, P. (2007) *Estimating the Cardinality of RDF Graph Patterns*. Proceedings of the 16th international conference on World Wide Web 2007: 1233-34.
- Schliekelman*, P. (2007) *Kin Selection and Evolution of Infectious Disease Resistance*. *Evolution* 61: 1277-1288.
- Anyanwu, K., Maduko, A., Pavagada, R., Sheth, A., Schliekelman, P. (Accepted) *From Link Analysis Ranking to Relationship Analysis Ranking - Adding Semantics to the Mix*. *Journal of Web Semantics*.
- Schliekelman, P., Ellner, S.P., and F. Gould. (2005) *Pest Control By Genetic Manipulation of Sex Ratio*. *Journal of Economic Entomology* 98: 18-34.
- Kim McBride, Ricardo Pignatelli, Mark Lewin, Trang Ho, Susan Fernbach, Andres Menesses, Wilbur Lam, Suzanne Leal, Norman Kaplan, Paul Schliekelman, Jeffrey Towbin, John Belmont. (2005) *Inheritance analysis of congenital left ventricular outflow tract obstruction malformations: segregation, multiplex relative risk, and heritability*. *American Journal of Medical Genetics* 134A: 180-186.
- Gould, F. and Schliekelman, P. (2004). *Population Genetics of Autocidal Control and Strain Replacement*. *Annual Reviews of Entomology* 49: 193-217.
- Ganko, E.W., V. Bhattacharjee, P.Schliekelman, and J.F. McDonald. (2003). *Evidence for the contribution of LTR retrotransposons to C.elegans gene evolution*. *Mol. Biol. Evol.* 20: 1925-1931.
- Schliekelman*, P. (2003) *Transient Dynamics in Multilocus Invasions by Transgenic Organisms*. *Journal of Mathematical Biology* 46:171-188.
- Schliekelman, P. and Slatkin M. (2002) *Multiplex Relative Risk and Estimation of the Number of Loci Underlying Complex Inherited Diseases*. *American Journal of Human Genetics* 71: 1369-1385.
- Schliekelman P., C. Garner, M. Slatkin (2001) *Natural Selection on alleles conferring resistance to HIV infection and AIDS in African populations*. *Nature* 411:545-546.
- Schliekelman, P. and S.P. Ellner (2001) *Egg Size Evolution and Energetic Constraints on Population Dynamics*. *Theoretical Population Biology* 60:73-92.

Schliekelman, P. and F. Gould (2000) *Pest Control by the Introduction of a Conditional Lethal Trait on Multiple Loci: Potential, Limitations, and Optimal Strategies*. Journal of Economic Entomology (forum section) 93:1543-1565.

Schliekelman, P. and F. Gould (2000) *Pest Control By the Release of Insects Carrying Female Killing Alleles on Multiple Loci*. Journal of Economic Entomology 93: 1566-1579.

Gould, F. and P. Schliekelman (2000) *Reassessing Autocidal Control*. Emerging Technologies for Integrated Pest Management: Concepts, Research, and Implementation (Conference Proceedings - The American Phytopathological Society, St Paul).

Non peer-reviewed:

Schliekelman, P. (2003). *Review of Statistical Methods in Bioinformatics*. Journal of the American Statistical Association 98(462): 490-491.

Grants

Acquisition of Linux Cluster to Meet Modern Computational Needs for Statistical Research at UGA. NSF. Co-Principle Investigators: Mary Meyer, Paul Schliekelman, Xiangrong Yin, Nicole Lazar, Jaxk Reeves
\$135,949

Invited Talks/Colloquia:

“The Use of Genomewide Expression Data as an Indicator of Genetic Variation in Genome Scans: Part of the Solution to Missing Heritability?”, Section on Statistical Genetics, Department of Biostatistics, University of Alabama at Birmingham, March 2012.

“Competition for Detection Between Peptides and Variation in Protein Detection Probabilities in Mass Spectrometry Based Proteomics”, Institute of Bioinformatics, University of Georgia, December 2011.

“Integrating Genomewide Expression Information into Genome Scans for Complex Traits”. Department of Genetics, University of Georgia, March 2010.

“Integrating Genomewide Expression Information into Genome Scans for Complex Traits”. Department of Mathematics, University of Mississippi, Oxford, MS. March 2010.

“Integrating Genomewide Expression Information into Genome Scans for Complex Traits”. Department of Statistics, Georgia State University, Atlanta, GA. September 2008.

“Experiences in Integrating Statistics into a New Bioinformatics Ph.D. Program”, Joint Statistical Meetings, Denver, August 2008.

“Teaching in Cameroon as a Peace Corps Volunteer: Perspectives Then and Now,” Educational Forum for Globalization on Culture, Research and Teaching, University of Georgia, March, 2008

“A Genetical Genomics Approach to Genome Scans for Complex Traits”, Department of Biostatistics, Emory University, February 2008.

“A Genetical Genomics Approach to Genome Scans for Complex Traits”, Institute of Bioinformatics, University of Georgia, October 2007.

“Expression QTLs and Mapping of Complex Disease Genes”, Department of Animal Science, University of Georgia, August 2007.

“Expression QTLs and Mapping of Complex Disease Genes”, Department of Mathematical Sciences, Clemson University, October 2006.

“Expression QTLs and Mapping of Complex Disease Genes”, NISS Affiliates & NISS/SAMSI University Affiliates, Annual Meeting 2006.

“Power of Expression QTLs for Mapping of Complex Trait Loci”, Department of Statistics, University of South Carolina, November 2005.

“Power of Expression QTLs for Mapping of Complex Trait Loci”, 2005 NSF-RCN Retreat: Development, Evaluation, & Dissemination of Methods for the Analysis of Gene Expression by Microarrays.

“Intra-Genomic Conflict and Evolution of Gene Silencing.” Computational Systems Biology Lab. University of Georgia. October 2004.

“Microarrays and Mapping of Complex Disease Genes” International Conference on Statistics, Combinatorics, and Related Areas. Portland, Maine. October 2003

“Genome Scans for Complex Disease: Should We Expect Success?”, Department of Genetics, University of Georgia. September 2002.

“Natural Selection on Alleles Conferring Resistance to HIV/AIDS in African Populations”, Institute of Theoretical Dynamics, University of California at Davis, May 2001.

Contributed Talks:

“Intra-Genomic Conflict and the Evolution of Gene Silencing” Society for the Study of Evolution Annual Meeting, Fairbanks, Alaska, June 2005.

“Natural Selection on Alleles Conferring Resistance to HIV/AIDS in African Populations”, Society for Mathematical Biology Annual Meeting, Knoxville, Tennessee. July 2002.

“Energy Allocation Tradeoffs and Evolution of Simple Population Dynamics” Society for Mathematical Biology Annual Meeting, Raleigh, North Carolina, July 1997.

Educational Talks:

“The Relationship Between Phenotype and Genotype”, Georgia Perimeter College, Clarkston, GA, February 2013.

“The Relationship Between Phenotype and Genotype”, Athens Academy, Athens, GA, January 2012-2013.

Posters

“Missing heritability and the Use of Genomewide Expression Data as an Indicator of Genetic Variation in Genome Scans” American Society for Human Genetics Annual Meeting, November 2012, San Francisco.

“Intra-Genomic Conflict and the Evolution of Gene Silencing” Society for Mathematical Biology Annual Meeting. August 2006. Raleigh, NC.

“Intra-Genomic Conflict and the Evolution of Gene Silencing” 1st Annual Conference on the Genomic Impact Eukaryotic Transposable Elements. April 2006. Pacific Grove, CA.

“Microarrays and Mapping of Complex Trait Loci”. University of Florida Sixth Annual Winter Workshop: Data Mining, Statistical Learning, and Bioinformatics. January 2004. I received a travel award to attend and present a poster.

University Governance

University:

Member, Institute of Bioinformatics Faculty Affairs Committee, 2011-present.

Member, Research Computing Advisory Committee, 2010-2013.

Chair, Search Committee for Joint Statistics/IOB Faculty Position, 2011. Headed a successful search for a new faculty member.

Chair, Professional Concerns Committee, Franklin College Faculty Senate, 2008-2009.

Chair, Institute of Bioinformatics Curriculum Committee, 2007-2011: Successfully created new Ph.D. and M.S. curriculum and created policies for new IOB graduate program.

Institute of Bioinformatics Graduate Committee, 2007-2011.

Selection Committee, James L. Carmon Scholarship, 2007-2010.

Selection Committee, Excellence In Research by Graduate Students Award, 2008.

Statistics Department Representative, Franklin College Faculty Senate, 2007-2010.

Institute of Bioinformatics Ph.D. Curriculum Committee: We successfully created Ph.D. and M.S. curriculums in Bioinformatics, 2005-2007.

Search committee, Genetics Department Molecular Evolution position, 2006.

Search committee, Genetics Department Complex Traits position, 2006.

Institute of Bioinformatics Certificate Curriculum Committee: We successfully created a certificate program in Bioinformatics (now in place), 2002-2003.

Departmental:

Ad-hoc Committee for Graduate Service Courses, 2011-2012

Chair, P+T Mentoring Committee for Liang Liu, 2011-

Chair, Search Committee, Statistics/Bioinformatics faculty position, 2010

Graduate Program Committee, 2005-2006, 2010-11

Search Committee, Associate Professor of Statistics, 2008

Chair, ad hoc committee to revamp grad level intro stat courses. 2007

Personal Committee 2007-2008, 2010-11, 2011-2012

Undergraduate Program 2011-2012

Infrastructure Committee 2009-2010

Computing Committee 2007-2008, 2010-11, Chair 2011-

Research Development Committee 2005-2008.

Search Committee, Assistant Professor, 2005.

Web Page Committee 2004-2006.

Intro Service Courses Committee 2001-2005.

Ph.D. and Masters Students

Reed Cartwright, Genetics, Ph.D. (2006) (co-advisor)

Ellen Breazel, Statistics, Ph.D. (2008)

GuoYing Sun, Statistics, Ph.D. (2008)
Shangbin Liu, Statistics, Ph.D. (2008)
Fen Gui, Genetics, M.S.
Sangjin Kim, Statistics, Ph.D. (current)
Valerie Flint, Institute of Bioinformatics, Ph.D. (current)
Hao Tong, Statistics, Institute of Bioinformatics, Ph.D. (current)
Tracy Kimethu, Statistics, M.S. (current)
Stacy Cobb, Statistics, Ph.D. (current)

Students conducting undergraduate research with me
Shelina Ramnarine (2009-2010)

Student Dissertation Committees

Terry Huff, Statistics, MS (2002)
An-Lin Cheng, Statistics, Ph.D. (2004)
Haofei Wang, Statistics, MS. (2004)
Monica Gray, Biological Engineering, MS (2004)
Weidong Wu, Textiles, Ph.D. (2004)
Jizhen Zhao, Computer Science, Ph.D. (2006)
Georgina Ankra-Badu, Poultry Science, Ph.D. (2006)
Ping Hu, Genetics, M.S. (2007)
Phillipa Rhodes, Computer Science, Ph.D. (2007)
YiMei Cai, Statistics, Ph.D. (2007)
Daniel Ngugi, Statistics, MS (2007)
Jeremy Debarrey, Genetics, Ph.D. (2008)
Brant Faircloth, Ecology, Ph.D. (2008)
Zhiming Wang, Computer Science, Ph.D. (2008)
Angela Maduko, Computer Science, Ph.D. (2008)
Susanta Tewari, Statistics, Ph.D. (2008)
Taniya Mandal, Statistics, Ph.D. (2010)
Xiaojia Tang, Statistics, M.S. (2010)
Jinae Lee, Statistics, Ph.D.
Jie Tang, Bioinformatics, Ph.D.
Ujwal Bagal, Bioinformatics, Ph. D.
Huizhe Jin, Bioinformatics, Ph.D.
Yupeng Wang, Bioinformatics, Ph.D. (2011)
Hui Guo, Plant Biology, Ph.D.
Jingping Li, Bioinformatics, Ph.D.
JungAe Lee, Statistics, Ph.D.
Jessica Hoffman, Genetics, Ph.D.
Yongjie Huang, Bioinformatics, Ph.D.
Jiayang Liu, Statistics, M.S.
Dong Zhang, Bioinformatics, Ph.D.
Rahul Chandnani, Agronomy, Ph.D.
Yupeng Li, Bioinformatics, Ph.D.