

Bret M. Hanlon

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Education

2009	Cornell Univ.	PhD	Statistics
2005	Texas Tech Univ.	MS	Mathematics
2003	Univ. of North Carolina	MS	Statistics
2001	Univ. of North Carolina	BA	Mathematics and Economics

Dissertation: Contributions to Ancestral Inference for Branching Processes and High-Dimensional Data Analysis. AN Vidyashankar, Advisor.

Employment

2010–	Assistant Professor, University of Wisconsin–Madison, Department of Statistics
2009–2010	Research Fellow, Department of Biostatistics, Harvard School of Public Health
2009–2010	Research Fellow, Department of Biostatistics and Computational Biology, Dana-Farber Cancer Institute

Teaching

571	Statistical Methods for Bioscience I (F 2010).
371	Introductory Applied Statistics for the Life Sciences (F 2010 ; S 2011)

Bibliography of Publications

Papers published in, or accepted by, refereed journals

1. B. Hanlon. A Stochastic Model of Disease Spread in a Small Population. *International Journal of Statistics and Systems (IJSS)*, 1(1):15–27, 2006.
2. C.F. Martin, B. Hanlon, and Y. Zhou. Models of extinction of genotypes in closed populations. *International Journal of Innovative Computing, Information and Control (IJICIC)*, 1(3):341–355, 2005.
3. B. Hanlon and A.N. Vidyashankar. Inference for Quantitation Parameters in Polymerase Chain Reactions via Branching Processes with Random Effects. *JASA*, Accepted.

Papers submitted to refereed journals

1. MK Nielsen, AN Vidyashankar, B Hanlon, SL Petersen, and RM Kaplan. Hierarchical modeling of observational data increases the accuracy for detecting anthelmintic resistance in livestock. *International Journal for Parasitology*, (In Review).
2. B Hanlon, N Wang, M Egerstedt, and CF Martin. Switched linear systems: Stability and the convergence of random products. *Communications in Information and Systems*, (In Review).
3. B Hanlon, V Tyuryaev, and CF Martin. Stability of switched linear systems with Poisson switching. *Communications in Information and Systems*, (In Review).
4. L Pinello, G Lo Bosco, B Hanlon, and GC Yuan. A model-free method for estimating sequence specificity. *Bioinformatics*, (In Review).

Refereed conference proceedings

1. C.F. Martin, B. Hanlon, and Y. Zhou. Extinction of genotypes in closed populations. In *Proc ISCIE Int Symp Stoch Syst Theory Appl (Inst Syst Control Inf Eng)*, pages 1–7, 2005.
2. B. Hanlon, C. Martin, and Y. Zhou. Stochastic Information Flow in an Inhomogeneous Network. In *Proc Int Conf Inf Automation (ICIA 2005)*, pages 429–430, 2005.
3. MK Nielsen, SL Petersen, AN Vidyashankar, B Hanlon, and RM Kaplan. Prevalence of strongylus vulgaris and pyrantel resistant cyathostomins on danish horse farms using selective therapy. In *WAAVP 2009. Proceedings for the World Association for the Advancement of Veterinary Parasitology, Calgary, Canada, 2009*.
4. B Hanlon, AN Vidyashankar, SL Petersen, RM Kaplan, and MK Nielsen. A Bayesian approach for evaluating drug efficacy using fecal egg count data. In *IWSM 2009. Proceedings of the 24th International Workshop on Statistical Modelling, Ithaca, NY, USA., 2009*.
5. SB Amin, S Minvielle, B Hanlon, PK Shah, C Li, Y Li, KC Anderson, H Avet-Loiseau, and NC Munshi. Gene expression profiling alone is inadequate in predicting complete responses in multiple myeloma. In *ASH 2010. Proceedings of 52nd Annual Meeting of the American Society of Hematology, Orlando, FL, USA., 2010*.

Research Presentations and Workshops

Invited

1. Statistics Department Seminar. *Inference for Quantitation Parameters in Polymerase Chain Reactions via Branching Processes with Random Effects*, University of Florida, 2009.
2. Statistics Department Seminar. *Inference for Quantitation Parameters in Polymerase Chain Reactions via Branching Processes with Random Effects*, University of Iowa, 2009.
3. Statistics Department Seminar. *Inference for Quantitation Parameters in Polymerase Chain Reactions via Branching Processes with Random Effects*, University of Wisconsin, 2009.
4. Joint Statistical Meetings. *Quantitative polymerase chain reaction via branching processes with random effects*, Washington DC, USA, 2009.
5. Conference: New Directions in Asymptotic Statistics. *Asymptotic inference for quantitation problems in branching processes using random effects*, University of Georgia, 2009.
6. Quantitative Issues in Cancer Research Working Seminar. *High Dimensional Variable Selection for Grouped Covariates with Applications in Cancer Genomics*, Harvard School of Public Health, 2010.
7. Statistics Department Seminar. *High Dimensional Variable Selection for Grouped Covariates with Applications in Cancer Genomics*, University of Wisconsin, 2010.
8. Statistics Department Seminar. *High Dimensional Variable Selection for Grouped Covariates with Applications in Cancer Genomics*, University of Minnesota, 2011.
9. Statistics Department Seminar. *High Dimensional Variable Selection for Grouped Covariates with Applications in Cancer Genomics*, George Mason University, 2011.
10. ENAR. *High Dimensional Variable Selection for Grouped Covariates with Applications in Cancer Genomics*, Florida, USA, 2011.

Contributed

1. Joint Statistical Meetings. *Minimum Hellinger distance estimation using synthetic data*, Seattle, WA, 2006.
2. NSF-IGERT Seminar. *Branching process models for quantitative PCR*, Cornell University, 2007.
3. Graduate Student Probability Conference. *Asymptotic behavior of functionals of branching process arrays*, University of Wisconsin, 2007.
4. Graduate Student Probability Conference. *Estimating the density of the martingale limit obtained from a supercritical branching process*, University of Wisconsin, 2008.
5. 24th International Workshop on Statistical Modelling. *A Bayesian Approach for Evaluating Drug Efficacy using Fecal Egg Count Data*, Ithaca, NY, 2009.

Academic Honors

2005 – 2007	NSF IGERT Fellow (non-linear systems)	Cornell
2003 – 2005	Chancellor's Fellowship	Texas Tech
2001	Chancellor's Award (top graduate in economics)	U North Carolina
1997–2001	Johnston Scholar	U North Carolina

Professional Service

Conference Organization: ENAR 2011, Organizer and Chair for Invited Session *High Dimensional Data Analysis with Applications in the Biosciences*.

Journal Referee: J of Amer Statist Assoc, Biometrics, Elect J of Stat, Genetic Epidemiology.

Professional Societies

American Statistical Association (ASA)
Institute of Mathematical Statistics (IMS)

Committee Responsibilities

Statistics Department

Ph.D. Qualifier (2010–); TA training (2010–); Undergrad Major Advisor (2010–).