

## Andrew C. Thomas

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### CONTACT INFORMATION

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### EDUCATION

Ph.D program, Harvard University, Department of Statistics. Expected graduation: June 2009.  
Master of Arts, Harvard University, Department of Statistics, June 2005.  
Bachelor of Science, Massachusetts Institute of Technology, February 2004. Physics, with a minor in Biology.

### RESEARCH INTERESTS

Application of statistical methods to questions of strategy, specifically in elections and redistricting, applied physics, computational genetics, economics, psychology, sports.  
Formalization and aggregation of network analysis models.  
Applied probability models for Perfect Sampling algorithms.  
Improvement of existing teaching methods including (but not limited to) problem solving, group learning and integrated learning methods.

### SOFTWARE

Andrew Gelman, Gary King, Andrew C. Thomas. "JudgeIt II: A Program for Evaluating Electoral Systems and Redistricting Plans." Available at CRAN (<http://cran.r-project.org>). [2007]

### PAPERS

Blanchet, Jose H. and Thomas, Andrew C. "Exact Simulation and Error-Controlled Sampling via Regeneration and a Bernoulli Factory". Presented at New England Statistics Symposium 2007. Winner of IBM T.J. Watson Student Paper Award.  
Thomas, Andrew C. "Inter-Arrival Times of Goals in Ice Hockey". *Journal of Quantitative Analysis in Sports*, 3(3). [2007]  
Thomas, Andrew C. "The Impact of Puck Possession and Location on Ice Hockey Strategy". *Journal of Quantitative Analysis in Sports*, (2)1. [2006]  
Michael C. McCormack, Edwin Kwon, Kyle R. Eberlin, Mark Randolph, Dan S. Friend, Andrew C. Thomas, Michael T. Watkins, William G. Austen Jr. "Development of Reproducible Histologic Injury Severity Scores: Skeletal Muscle Reperfusion Injury". *Surgery*, 143(1), 126-133. [2008]

### INVITED TALKS

Research Workshop in Applied Statistics, Harvard University, October 2007.  
New England Statistics Symposium, April 2007.  
Statistics Graduate Student Seminar, Columbia University, October 2006.  
Research Workshop in Applied Statistics, Harvard University, October 2005.

CONTRIBUTED TALKS useR!, August 2007.

Joint Statistical Meetings, August 2005.

New England Statistics Symposium, April 2005 (honourable mention for best student paper.)

POSTERS MCMSki II: Markov Chain Monte Carlo in Theory and Practice, January 9-11, 2008.

Harvard University Department of Statistics 50th Anniversary Symposium, October 26-27, 2007.

EDITORIAL SERVICE Referee, Journal of Statistical Software.

Referee, Journal for Quantitative Analysis in Sports.

TEACHING EXPERIENCE Teaching Assistant/Fellow:

- Statistics 221: Applied Bayesian Statistical Computing. Spring 2008.
- Statistics 110: Introduction to Mathematical Probability. Fall 2005, Fall 2007, Harvard University.
- Statistics 111: Introduction to Mathematical Statistics. Head Teaching Fellow. Spring 2007, Harvard University.
- Government 2003: Hierarchical Bayesian Modeling. Fall 2006, Harvard University.
- Statistics 171: Stochastic Processes. Spring 2006.
- Teaching Assistant, 8.01T: Introduction to Mechanics (Technology Enabled). September-December 2004, MIT Physics Department.

Lecturer, 8.02: Introduction to Electricity and Magnetism. February-May 2004, MIT Experimental Studies Group.

CONSULTING EXPERIENCE Roland J. Fryer, Assistant Professor of Economics, Harvard University, 2006-2007. Consulting regarding redistricting and analysis of electoral plans.

Alan Schwarz, sportswriter. Consulted for article "KEEPING SCORE; The Goal Rush and the Prospect of More Penalties", December 25, 2005.

DEPARTMENT SERVICE Convenor, Qualifying Exam Seminar. (weekly, spring 2007)

Founder/Convenor, Sports Analysis Workshop.

Member, Computing Committee.

Member, Department Social Committee.