

Matthew T. Pratola
Academic Curriculum Vitae

Personal Information

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Education

- Ph.D. Statistics, in progress.
- M.Sc. Statistics, Dept. of Statistics and Actuarial Science, Simon Fraser University (August, 2006).
- B.Sc. Honours Computer Science, Brock University (April, 2003).

Awards

- 2nd Prize for Outstanding Poster Presentation, 2007 Joint Statistical Meeting, Section of the Physical and Engineering Sciences of the American Statistical Association (2007).
- Graduate Fellowship, Dept. of Statistics and Actuarial Science (2006).
- Graduate Fellowship, Dept. of Statistics and Actuarial Science (2005).

Research Interests

- Statistics, computer experiments, spatial models, experimental design and statistical learning.
- Statistical modeling of complex computer codes, physical process simulators and dynamical systems.
- Models and experimental design for environmental processes research and applied industrial research.
- Prediction, parameter estimation and optimization problems.

Refereed Publications

- M. T. Pratola, S. Sain and D. Bingham: *Fast Calibration of Complex Computer Models*, to be submitted imminently.
- T. Wolf and M. Pratola: *A Library of Eyes in Go II: Monolithic Eyes*, to appear in Games of No Chance 3, no.56 (2009).
- M. T. Pratola: *Design on Non-Convex Regions: Optimal Experiments for Spatial Process Prediction*, M.Sc. Thesis, Dept. of Statistics and Actuarial Science, Simon Fraser University (2006).
- T. Wolf and M. Pratola: *A Library of Eyes in Go II: Monolithic Eyes*, submitted to the proceedings of the International Workshop on Combinatorial Game Theory at Banff International Research Station (2005).
- M.T. Pratola, K. Burkett, M. Ghadessi, B. McNeney, J. Graham and D. Daley: *A Comparison of Three Methods for Selecting Tagging Single Nucleotide Polymorphisms*, conference proceedings of Genetic Analysis Workshop 14 (2004).
- M. Pratola and T. Wolf: *Optimizing GoTools' Search Heuristics using Genetic Algorithms*, ICGA Journal 26, no.1, pp.28-49 (2003).

Posters and Other Contributions

- M.T. Pratola, S. Sain and D. Bingham: *Fast Calibration of Complex Computer Models*, contributed paper to be presented at JSM 2009 (August, 2009).
- M.T. Pratola and D. Bingham: *Design on Non-Convex Regions: Optimal Experiments for Spatial Process Prediction with Applications to Industrial Processes*, Interdisciplinary Research in the Mathematical and Computational Sciences (IRMACS) Centre: IRMACS Celebrates Poster Presentation (2008).
- M.T. Pratola and D. Bingham: *Design on Non-Convex Regions: Optimal Experiments for Spatial Process Prediction with Applications to Industrial Processes*, Joint Statistical Meeting (2007).
- M.T. Pratola, K. Burkett, M. Ghadessi, B. McNeney, J. Graham and D. Daley: *A Comparison of Three Methods for Selecting Tagging Single Nucleotide Polymorphisms*, Genetic Analysis Workshop 14 (2004).
- M. Pratola, T. Wolf and S. Houghten: *Combinatorial Generation of Monolithic Eyes in the Game of Go*, B.Sc. Thesis, Dept. of Computer Science, Brock University (2003).

Invited Talks

- University of British Columbia Oakanagan, Dept. of Mathematics, Statistics and Physics: *Fast Calibration of Complex Computer Codes* (March, 2009).
- High Performance Computing Symposium 2005: *Monolithic Eyes in the Game of Go* (2005).
- Brock Institute for Scientific Computation, SGI Lecture Series: *Monolithic Eyes in the Game of Go* (2005).
- Statistical Horizons Graduate Student Seminar Series: *R Code Optimization* (2004).
- Brock Institute for Scientific Computation, SGI Lecture Series: *Parallel Programming with MPI* (2003).

Workshops and Applied Research Experience

- Invited Collaborator, Institute for Mathematics Applied to Geosciences, National Center for Atmospheric Research (March, 2008 - August, 2008).
- Statistical and Applied Mathematical Sciences Institute's Theme of the Year Workshop III: *Application of Statistics to Numerical Models*, National Center for Atmospheric Research (May, 2007).
- Statistical and Applied Mathematical Sciences Institute: *Summer School on the Design and Analysis of Computer Experiments*, Simon Fraser University (August, 2006).
- Pacific Institute for the Mathematical Sciences: *Industrial Problem Solving Workshop*, Simon Fraser University (June, 2006).

Teaching

- Course Lecturer:
 - STAT270: Introduction to Probability and Statistics (2007).
- Statistics Workshop:
 - STAT101: Introduction to Statistics (2003-2006).
 - STAT201: Statistics for the Life Sciences (2003-2006).
 - STAT270: Introduction to Probability and Statistics (2003-2006).
- Teaching Assistant:
 - STAT330: Introduction to Mathematical Statistics (2005, 2006).
- Substitute Course Lecturer
 - STAT330: Introduction to Mathematical Statistics (2006).