

Ph.D. Dissertations Directed by Richard S. Ellis

(1) Michael R. O'Connell, 1980. *GHS Inequality for Large External Field*. Joint publication:

- Richard S. Ellis, Charles Newman, and Michael O'Connell. The GHS Inequality for a Large External Field. *Journal of Statistical Physics*, Volume 26, Number 1, 37–50 (1981).

(2) Kongming Wang, 1991. *Limit Theorems and Parameter Estimation for the Q-State Curie-Weiss-Potts Model*. Joint publications:

- Richard S. Ellis and Kongming Wang. Limit Theorems for the Empirical Vector of the Curie-Weiss-Potts Model. *Stochastic Processes and Their Applications*, Volume 35, Number 1, 59–79 (1990).
- Richard S. Ellis and Kongming Wang. Limit Theorems for Maximum Likelihood Estimators in the Curie-Weiss-Potts Model. *Stochastic Processes and Their Applications*, Volume 40, Number 2, 251–288 (1992).

(3) Gordon Kieffer, 1995. *The Large Deviation Principle for Two-Dimensional Stable Queueing Systems*.

(4) Christopher L. Boucher, 1998. *Large Deviations for Doubly Indexed Stochastic Processes with Applications to Statistical Mechanics*. Joint publications:

- Christopher Boucher, Richard S. Ellis, and Bruce Turkington. Spatializing Random Measures: Doubly Indexed Processes and the Large Deviation Principle. *Annals of Probability*, Volume 27, Number 1, 297–324 (1999). Erratum, *Annals of Probability*, Volume 30, Number 4, 2113 (2002).
- Christopher Boucher, Richard S. Ellis, and Bruce Turkington. Derivation of Maximum Entropy Principles in Two-Dimensional Turbulence via Large Deviations. *Journal of Statistical Physics*, Volume 98, Numbers 5/6, 1235–1278 (2000).

(5) Kyle Haven, 2001. *Large Deviation Principles and Complete Equivalence and Nonequivalence Results for Microcanonical and Canonical Ensembles with Applications to Geophysics*. Joint publications:

- Richard S. Ellis, Kyle Haven, and Bruce Turkington. Large Deviation Principles and Complete Equivalence and Nonequivalence Results for Pure and Mixed Ensembles. *Journal of Statistical Physics*, Volume 101, Numbers 5/6, 999–1064 (2000).
- Richard S. Ellis, Kyle Haven, and Bruce Turkington. Nonequivalent Statistical Equilibrium Ensembles and Refined Stability Theorems for Most Probable Flows. *Nonlinearity*, Volume 15, 239–255 (March, 2002).

- Richard S. Ellis, Kyle Haven, and Bruce Turkington. Analysis of Statistical Equilibrium Models of Geostrophic Turbulence. *Journal of Applied Mathematics and Stochastic Analysis*, Volume 15, Number 4, 341–361 (2002).

(6) Hugo Touchette, Department of Physics and School of Computer Science, McGill University, Montréal, Québec, Canada, 2003. *Equivalence and Nonequivalence of the Microcanonical and Canonical Ensembles: A Large Deviations Study*. Although I was not Hugo Touchette's official advisor, I suggested his dissertation problem and worked closely with him during the last year of his dissertation work. Our joint publications are listed at <http://www.math.umass.edu/~rsellis/math-publications.html>.

(7) Peter Otto, 2004. *Study of Equilibrium Macrostates for Two Models in Statistical Mechanics*. Our joint publications are listed at <http://www.math.umass.edu/~rsellis/math-publications.html>.

(8) Marius Costeniuc, 2005. *Ensemble Equivalence and Phase Transitions for General Models in Statistical Mechanics and for the Curie-Weiss-Potts Model*. Our joint publications are listed at <http://www.math.umass.edu/~rsellis/math-publications.html>. In the first paragraph of the Acknowledgments in his dissertation, Marius comments on our interaction.

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(9) Jingran Li, 2013. *Conditional Gaussian Fluctuations and Refined Asymptotics of the Spin in the Phase-Coexistence Region*. In the second paragraph of the Acknowledgments in her dissertation, Jingran comments on our interaction.

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Joint publication:

- Richard S. Ellis and Jingran Li. Conditional Gaussian Fluctuations and Refined Asymptotics of the Spin in the Phase-Coexistence Region. *Journal of Statistical Physics*, Volume 149, 803–830 (2012).

Except for (6), all dissertations were written in the Department of Mathematics and Statistics at the University of Massachusetts Amherst.