

PUBLICATION LIST OF RICHARD S. ELLIS

(1) Chapman-Enskog-Hilbert Expansion for a Markovian model of the Boltzmann Equation. *Communications on Pure and Applied Mathematics*, Volume 26, Number 3, 327–359 (1973).

(2) Limit Theorems for Model Boltzmann Equations with Several Conserved Quantities (with Mark Pinsky). *Indiana University Mathematics Journal*, Volume 23, Number 4, 287–307 (1973).

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(4) An Application of Stochastic Optimal Control Theory to the Optimal Rescheduling of Airplanes (with Ray Rishel). *IEEE Transactions on Automatic Control*, Volume AC-19, Number 2, 139–142 (1974).

(5) Chapman-Enskog-Hilbert Expansion for the Ornstein-Uhlenbeck Process and the Approximation of Brownian Motion. *Transactions of the American Mathematical Society*, Volume 199, 65–74 (1974).

(6) The Asymptotic Behavior of the First Real Eigenvalue of Second Order Elliptic Operators with a Small Parameter in the Highest Derivatives, II (with Allen Devinatz and Avner Friedman). *Indiana University Mathematics Journal*, Volume 23, Number 11, 991–1011 (1974).

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ACCEPTED FOR PUBLICATION

SUBMITTED FOR PUBLICATION

(80) Large Deviation Analysis of a Droplet Model Having a Poisson Equilibrium Distribution" (with Shlomo Ta'asan). 66-page Latex manuscript. Submitted to *Annals of Applied Probability*.

IN PREPARATION

(81) The Boltzmann-Sanov Large Deviation Principle as a Tool for Calculating Equilibrium Distributions for Statistical Mechanical Models (with Shlomo Ta'asan). Special Theme Issue on Large Deviation Techniques, *Philosophical Transactions A of the Royal Society*, 2015. Edited by Eitan Gross.

(82) “Large Deviations for Empirical Pairwise Displacement Measures” (with Shlomo Ta'asan)

OTHER MATHEMATICAL WORK

(1) *Entropy and Asymptotic Problems in Probability Theory and Statistical Mechanics*. Lecture notes for an invited lecture series delivered at Institut für Angewandte Mathematik, Universität Heidelberg, Heidelberg, West Germany, July 1981.

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(3) *A Weak Convergence Approach to the Theory of Large Deviations* (with Paul Dupuis). Preprint #93-6, Lefschetz Center for Dynamical Systems, Brown University, 1993. This 285-page manuscript was a preliminary version of our book noted in item (52).

(4) *The Theory of Large Deviations and Applications to Statistical Mechanics*. Lecture notes for the International Seminar on Extreme Events in Complex Dynamics, October 23–27, 2006 (115 pages). Max-Planck-Institut für Physik komplexer Systeme, Dresden, Germany.

(5) Ginzburg-Landau Polynomials and the Asymptotic Behavior of the Magnetization Near Critical and Tricritical Points (with Jonathan Machta and Peter Tak-Hun Otto). 75-page Latex manuscript. This unpublished paper contains details of proofs and calculations omitted from the paper listed in item (75). It is posted at <http://arxiv.org/abs/0803.0178>.

(6) *The Theory of Large Deviations and Applications to Statistical Mechanics*. Lecture notes for three lectures given August 5–8, 2008 at École d'Été de Physique Théorique in Les Houches, France during the August 2008 summer school devoted to long-range, interacting systems (123 pages).

(7) Refined Asymptotics of the Finite-Size Magnetization via a New Conditional Limit Theorem for the Spin (with Jingran Li). 78-page Latex manuscript. This

unpublished paper contains details of proofs omitted from the paper listed in item (79). It is posted at <http://arxiv.org/abs/1205.0970>.

(8) “Detailed Large Deviation Analysis of a Droplet Model Having a Poisson Equilibrium Distribution” (with Shlomo Ta’asan), 83-page Latex manuscript, posted at <http://arxiv.org/abs/1405.5091>. This is a companion paper to the paper listed in item (80). That paper omits a number of routine proofs, which are given with full details in this companion paper. The companion paper also contains additional background information.

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