Statistical Physics at the 45th Parallel: 3rd Annual Meeting, Clarkson University¹

M. F. Shlesinger (Invited Speaker) Office of Naval Research Universality in Glassy Relaxation V. Privman, Chairman Clarkson University C. R. Doering (Review Talk) Clarkson University Statics and Dynamics of a Diffusion-Limited Reaction Process Short talks J.-C. Lin Clarkson University Joint Density Closure Schemes for a Diffusion-Limited Reaction A. Lawniczak University of Guelph Lattice Gas Cellular Automata Models for Reaction-Diffusion Equations S. Redner **Boston University** Super Diffusive Transport Due to Random Velocities L. Macot Concordia University Two Effects of a Refractory Period on a Cellular Automaton P. Vasilopoulos Ecole Polytechnique Novel Magnetotransport Effects in a Periodically Modulated Two-Dimensional Electron Gas

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¹ Sponsored by the Physics Department, Clarkson University, Potsdam, New York, and the Adirondack North Country Association, November 3–4, 1989.

C. Van Vliet University of Montreal A Quantum-Electrodynamical Theory of Infrared Divergence and Quantum 1/f Noise in Condensed Matter I. S. Graham McGill University Relevance of Shear Modes in Scatterers for Acoustic Localization L. S. Schulman Clarkson University Model of a Measurement Apparatus B. Watson, Chairman St. Lawrence University R. Harris (Review Talk) McGill University Numerical Studies of the Dynamics of Interfaces Short talks M. Zuckermann McGill University Phase Behavior of Lipid Membranes Containing Cholesterol: The Latest Results M. Grant McGill University Interface Growth in Driven Systems D. Frazer McGill University Simulations of an Off-Lattice Model for the Phase Behavior of Lipid Monolavers M. Laradji McGill University Simulations of a Simple Microemulsion Model J. R. Thomson McGill University Model for Pattern Formation in Primate Visual Cortex M. Zuckermann, Chairman McGill University H. L. Frisch (Invited Speaker) State University of New York at Albany An Ordering Transition of Hard Rod-Like Particles in Infinite Dimensions

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Short talks K. Elder McGill University Early Stage Dynamics of First-Order Phase Transitions M. Bartelt and V. Privman Clarkson University Rounding of First-Order Transitions in Finite-Size Systems with Interfaces Induced by Boundary Conditions B. Frank Concordia University New Stochastic Method for Critical Exponent Calculation B. Grossmann McGill University Monte Carlo Renormalization Group Study of Self-Organized Criticality I. L'Heureux University of Ottawa Noise Induced Transitions in a Non-Linear System S. Redner, Chairman **Boston University** Short talks S. Lovejoy, D. Lavallée, A. Davis, and D. Schertzer McGill University Universal Multifractals, Clouds, and Radiative Transfer Y. H. Li Rochester University Three Dimensional Random XY Model: Application to the Superfluid Transition of ⁴He in Porous Media X. R. Wong **Rochester University** Scaling of the Shortest Path Aggregation D. W. Geldart Dalhousie University Dipolar Effects in Gadolinium M. L. Glasser Clarkson University Statistical Mechanics of Composite Systems M. F. Haque, N. Kallay, V. Privman, and E. Matijevic Clarkson University Magnetic Iteractions of Colloid Particles

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G. Forgacs Clarkson University Viscocity of Concentrated Solutions: An Approach Based on Percolation Theory M. Grmela Ecole Polytechnique Hamiltonian Dynamics of Complex Fluids C. Marchetti Syracuse University Dislocation Loops and Bond-Orientational Order in the Abrikosov Flux Line Lattice J. Mizia Queens University Basic Thermodynamics of a Monte Carlo Simulation for the Solid-Liquid Interface D. ben-Avraham Clarkson University Lattice Models of Heterogeneous Catalysis D. Considine Boston University Kinetics of Adsorption- and Reaction-Limited Heterogeneous Catalysis Daniel ben-Avraham, Organizer Clarkson University

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