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PROGRAM OF THE 41ST STATISTICAL MECHANICS MEETING

Department of Mathematics
Rutgers University
May 10 and 11, 1979

These two-day meetings are extremely informal, with participants presenting brief talks on their work. No proceedings of these meetings are published, so, as a service to the statistical mechanics community, the speakers and the titles of their work are listed below. In many cases, there is only one speaker listed although the work may have been done with collaborators. Also, the addresses are incomplete. Anyone who is interested in communicating with a speaker and who requires a more complete address may obtain it by writing to:

Dr. Joel L. Lebowitz
Department of Mathematics, Hill Center
Rutgers University
New Brunswick, New Jersey 08903

Remark on Dobrushin's Uniqueness Theorem
Barry Simon, Princeton University

Nonequilibrium Entropy for Dynamical Systems
S. Goldstein, Rutgers University, *and O. Penrose,* Open University

Debye Shielding in Classical Statistical Mechanics
Paul Federbush, University of Michigan

Debye Screening
David Brydges, University of Virginia

The $1/N$ Expansion
Anti Kupianin, Princeton University

Some Comments on the Lipatov Method
T. Spencer, Rutgers University

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Low-Temperature Behavior of Continuous Spin Systems
Jean Bricmont, Rutgers University

Surface Tension
Charles Pfister, Rutgers University

Localization in Disordered Systems – Rigorous Results
H. Kunz, EPFL, Lausanne, *and B. Souillard,* Poly., Paris

One-Dimensional XY Model: Finite Temperature Transverse Autocorrelation of a Spin for Large Times
M. Mohan, State University of New York at Stony Brook

Instability of Phase Coexistence in Two-Dimensional Lattice Models
Michael Aizenman, Princeton University

Proof of the Uniqueness of the Even Correlation Function in a $(\Lambda \not\subset \mathbb{Z}^2)$ Two-Dimensional Ising Model at Low Temperature
Danilo Merlini, Northeastern University

Convergence of a Self-Avoiding Walk to Brownian Motion in 5 or More Dimensions
Greg Lawler, Princeton University

Mixing Nonextremal Gibbs State
Joseph Slawny, Institute for Advanced Study

Potts Model with Two- and Three-Site Interactions
F. Y. Wu, Northeastern University

Asymptotic Probability Distribution of Observables in Canonical Ensembles
Mark Kon, Massachusetts Institute of Technology

On The Existence of Crystals
Charles Radin, University of Texas

Extrapolation of Lattice Gauge Theories to the Continuum Limit
Hemant Vaidya, Columbia University

The ϕ^4 Lattice Field Theory as an Expansion About the Ising Limit
Gunduz Caginalp, Rockefeller University

Banach Algebras and Kadanoff Transformations
Robert Israel, University of British Columbia

New Rigorous Inequalities for Critical Exponents
Alan D. Sokal, Princeton University

Universal Properties of Maps on an Interval
P. Collet, Harvard University, *J.-P. Eckmann,* University of Geneva, *and O. E. Lanford, III,* University of California

Statistical Mechanics and the Physics of Fundamental Particles
Arthur Jaffe, Harvard University, *and Kenneth Wilson,* Cornell University

Phase Segregation in Stars and/or Other Charged Systems
Bernie Alder, Livermore

Comment
Freeman Dyson, Institute of Advanced Study

Black Holes
Malcolm Perry, Institute of Advanced Study

Molecular Dynamics Shock Waves: Film and Commentary
B. L. Holian and G. K. Straub, Los Alamos Scientific Laboratory

Application of Isomorphism Theory to Channels
Paul Shields, University of Toledo

Light Scattering by Ar
G. K. Horton, Rutgers University

Nucleation Theory of Overdamped Soliton Motion
M. Büttiker and R. Landauer, IBM Research Division

Crossover Scaling Function for the Specific Heat in Renormalized Perturbation Theory
Walter Theumann, Polytechnic Institute of New York

Frustration and the Ground State of the $S = 1/2$ XY Antiferromagnet on the Triangular Lattice
Donald D. Betts and L. Marland, University of Alberta

A Study of the Polymer Problem by Loop Elimination
Z. Alexandrowicz, State University of New York at Albany

Monte Carlo Renormalization Group
Robert H. Swendsen, Brookhaven National Laboratory

The Euclidean Group as a Dynamical Symmetry of Surface Fluctuations
D. J. Wallace, Harvard University

Physical Implications of High-Order Perturbation Calculations
E. Brezin, Saclay

Present Status of Spin Glass Theory
P. Anderson, Princeton University and Bell Laboratories

Theory of Spin Glasses with Many Neighbors
Daniel Mattis, Polytechnic Institute of New York

Structural Transitions Between Epitaxially Ordered Phases of Gases Adsorbed on Graphite
Stellan Ostlund, Harvard University

Non-Ising Nature of the Liquid–Vapor Coexistence Curve Diameters
Chester Vause, Rutgers University

Numerical Estimates of the Dimension of the Largest Cluster and Its Backbone in Percolation in Two Dimensions
J. Woods Halley, University of Minnesota

Renormalization Group Approach to Correlated Percolation and Ising Critical Droplets
A Coniglio, Naples University and Boston University, *and W. Klein,* Boston University

Statistics of Branched Polymers
Sidney Redner, Boston University

Site-Bond Percolation by Position-Space Renormalization Group
H. Nakanishi and P. J. Reynolds, Boston University

Dynamic Behavior of Pairs of Atoms in Simple Liquids
Steven W. Haan, National Bureau of Standards

A Renormalization Group Approach to Percolations in Two Dimensions
P. D. Gujrati, Yeshiva University

Theory of Spin Glasses
R. Raghaven, New York University

(a) Dynamics of Spin Glasses; (b) Inverse Dynamical Problems in Statistical Mechanics
G. Forgacs, State University of New York at Albany

Dependence of Gaseous Transport Properties on the Softness of the Potential
James C. Rainwater, National Bureau of Standards

Monte Carlo Simulation of the "Cubic Model"
M. J. Sablik, Fairleigh Dickinson University

Polymers in a Confined Geometry
Itzhak Webman, Rutgers University

A Monte Carlo Study of a Triplet Interaction Kinetic Ising Model
Sheldon Katz, Lafayette College, *and James Gunton,* Temple University

Experimental Study of Three-Phase Equilibrium
Peter Bocko, Cornell University

Some Critical Effects of Walls
Michael E. Fisher and Helen Au-Yang, Cornell University

Statistical Description of $1/f$ Voltage Fluctuations
M. Nelkin, Cornell University

Hyperscaling Revisited
Bernie Nicol, Guelph University

Phase Diagrams and Lattice Gauge Theories with Higgs Fields
Edouardo Fradkin, Stanford University, *and Steve Shenker,* Cornell University

Thermodynamics of Classical Nonlinear Fields
Neelam Gupta, University of Rhode Island

Growth and Biconnectivity of Percolation Clusters
George Bishop, Ralph Harrison, and George Quinn, Army Materials and Mechanics Research Center, *and Joshi Hoshen,* University of Michigan

Crossover from First Order to Continuous Transitions Induced by Symmetry Breaking Fields
David Mukamel, The Weizmann Institute of Science

Surface Reconstruction: A Realization of Two-Dimensional Ising and XY Models
P. Bak, IBM Research Center

Quantum Effects in Spin Dynamics
Jill Bonner, University of Rhode Island

Kinetics of Polymerization
Robert Ziff, State University of New York at Stony Brook

Magnetic Susceptibility of Compressible Magnets Near the Critical Point
John Bruno, Rutgers University

The next Statistical Mechanics Meeting will take place December 13 and 14, 1979 just before the Conference on Nonlinear Dynamics at The New York Academy of Sciences, December 17 through 21, see notices.