

Statistical Mechanics at the 45th Parallel: 4th Annual Meeting¹

CONTRIBUTED PAPERS

Session I.1

Chairperson: Bela Joos (Ottawa)

Invited speaker: David Nelson (Harvard University)

Statistical Mechanics of Polymerized Membranes

Session I.2

Chairperson: Carolyne M. Van Vliet (Montréal)

Invited speaker: Rashmi Desai (Toronto)

Phase Separation Kinetics in Thermodynamically Unstable Systems

Session C.1. Mainly Equilibrium Statistical Mechanics

Chairperson: Larry S. Schulman (Clarkson)

C1.1. V. Privman (Clarkson)

Statistical Mechanics of Colloid Systems

C1.2. Jong-Rim Lee (Rochester)

Critical Behaviour in the Dense Two-Dimensional Classical
Coulomb Gas on a Triangular Lattice

C1.3. M. L. Glasser (Clarkson)

An Identity with Application to Random Chains

C1.4. D. G. Rancourt (Ottawa)

Novel Real Magnetic Systems Amenable to Theoretical Analysis

¹ Sponsored by Centre de Recherches Mathématiques, Université de Montréal, Montreal, Quebec, Canada, 19–20 October 1990; Steering Committee: L. S. Schulman (Clarkson), M. Zuckermann (McGill), and C. M. Van Vliet (Université de Montréal).

- C1.5. G. Vidali (Syracuse)
Ordering of Metal Overlayers on Metal Surfaces: Experimental and Theoretical Results
- C1.6. B. Joos (Ottawa)
Distribution of Terrace Widths on Vicinal Surfaces
- C1.7. M. J. Zuckermann (McGill)
Phase Behaviour of Lipid Membranes Containing Drug Molecules

Session C.2. general Statistical Physics

Chairperson: Martin Zuckermann (McGill)

- C2.1. C. Doering, L. Glasser, and T. Ray (Clarkson)
Funny Things That Occur During Transmission Through a Weakly Scattering Slab
- C2.2. Hong Guo (McGill)
Interface Growth with a Shadow Instability
- C2.3. S. Lovejoy, D. Schertzer, D. Lavallée, and K. Pflug (McGill)
Anisotropic Universal Multifractals and Clouds
- C2.4. M. Sutton (McGill)
Fraunhofer Diffraction, Bragg Diffraction, and Speckle
- C2.5. M. C. Marchetti (Syracuse)
Flux Lines entanglement in High T_c Superconductors
- C2.6. G. Forgacs (Clarkson)
Is Percolation Relevant to High T_c Superconductors?
- C2.7. S. Lacelle (Sherbrooke)
On the Growth of Multiple Spin Coherences in the NMR of Solids
- C2.8. S. Teitle (Rochester)
Flux Flow Resistance in Josephson Junction Arrays
- C2.9. Y. Shapir (Rochester)
Quantum Interference Effects in Insulators

Session C.3. Nonequilibrium Statistical Mechanics

Chairperson: André-Marie Tremblay (Sherbrooke)

- C3.1. I. L'Heureux (Ottawa)
Noise-induced Transitions in a Bistable Optical System
- C3.2. I. Graham and M. Grant (McGill)
The Role of Droplet Fluctuations in Kinetic Ising Models
- C3.3. R. J. Gooding (Queen's)
Heterophase Fluctuations at Martensitic Transitions

- C3.4. Gan Hin Hark and B. C. Eu (McGill)
Integral Equation of Dynamic Pair-Correlation Function for Non-equilibrium Simple Liquids
- C3.5. B. Gaveau and L. S. Schulman (Clarkson)
Mean Field Self-Organizing Criticality
- C3.6. P. Vasilopoulos (École Polytechnique)
Coulomb Coupling between 2D and 3D Electron-Gas Layers: Influence on Transport
- C3.7. C. M. Van Vliet (Montréal)
Correlated Diffusion Noise in β'' Aluminas

Session I.3.

Chairperson: Vladimir Privman (Clarkson)

Invited Speaker: Gary Slater (Ottawa)
Polymer Physics and the Human Genome Project

POSTERS SESSION

- P1. Alejo Hausner and B. C. Eu (McGill)
Oscillating non-Newtonian Pipe Flow
- P.2. Emilio Hernandez-Garcia and Martin Grant (McGill)
Study of the One-Dimensional Swift-Hohenberg Model in the Presence of White Noise
- P.3. Eugenia Corvera (McGill)
Permeability of Lipid Bilayers Containing Cholesterol
- P.4. Philippe Daviet (McGill)
Numerical Study of Orientational Stripes in the Visual Cortex
- P.5. Bruno Grossmann (McGill)
Kinetics of Interface Growth in Driven Systems
- P.6. Loki Jörgensen (McGill)
Monte Carlo Study of Three-Dimensional Dendritic Growth
- P.7. Martin Lacasse (McGill)
Study of a New Monte Carlo Renormalization-Group Method for Domain Growth and Critical Dynamics
- P.8. Mohamed Laradji (McGill)
Dynamics of Micro-phase Separation
- P.9. Bertrand Morin (McGill)
Theory for the Kinetics of an Order-Disorder Transition
- P.10. Nick Provatas (McGill)
Asymptotic Periodicity in One-Dimensional Maps

- P.11. Tao Sun (McGill)
Renormalization-Group Study of Models of Driven Interface Dynamics
- P.12. Ross Thomson (McGill)
Monte Carlo Study of Transverse Spin Freezing in the Three-Dimensional Frustrated Heisenberg Model
- P.13. Jianhua Yao (McGill)
Ostwald Ripening in Exciton Systems
- P.14. Andres M. Somoza and P. Tarazona (Toronto)
Density Functional Theory of the Elastic Constants of a Nematic Liquid Crystal
- P.15. Maria C. Saguí, C. Roland, and R. C. Desai (Toronto)
Dynamics of First Order Phase Transitions in Systems with Long Range Repulsive Interactions
- P.16. Réal Tremblay (Sherbrooke)
Cross Over Exponents in Random Resistor Networks
- P.17. André-Marie Tremblay (Sherbrooke)
Highly Anisotropic Hubbard Model
- P.18. André-Marie Tremblay (Sherbrooke)
Magnetic Properties of the 2D Hubbard Model
- P.19. Barry Frank (Concordia)
- P.20. Marsha A. Singh (Queen's)
Ordering Kinetics in Block Copolymers
- P.21. Kefei Mao and B. C. Eu (McGill)
The Consistency Between the Relativistic Boltzmann Distribution and Planck's Radiation Law
- P.22. T. Samson and C. M. Van Vliet (Montréal)
The Fractional Quantum Hall Effect: Many-Body Master Equation and Functional Integral Approach