

CURRICULUM VITAE

February 24, 2002

Theodore Ross Kirkpatrick

Education

B.S., Physics University of California at Los Angeles	1977
Ph.D., Theoretical Physics The Rockefeller University, NYC	1981

Honors

Graduated with honors - U.C.L.A.	1977
F. Lee Kinsey Award for Outstanding Graduating Senior	1977
Graduate Fellow - The Rockefeller University	1977-1981
Presidential Young Investigator Award	1984-1989
Washington Academy of Science Award for the Physical Sciences	1985
Maryland Academy of Sciences Distinguished Young Scientist	1985
Fellow of the American Physical Society	1990

I certify that this curriculum vitae is corrected and up to date:

Signed: \_\_\_\_\_ Date: \_\_\_\_\_

## **THEODORE ROSS KIRKPATRICK**

### Academic Experience

Research Associate, theoretical statistical mechanics Institute for Physical Science and Technology University of Maryland, College Park	1981-1983
Assistant Professor, theoretical statistical mechanics Institute for Physical Science and Technology and Department of Physics and Astronomy University of Maryland, College Park	1983-1987
Associate Professor, theoretical statistical mechanics Institute for Physical Science and Technology and Department of Physics and Astronomy University of Maryland, College Park	1987-1991
Professor, theoretical statistical mechanics Institute for Physical Science and Technology and Department of Physics and Astronomy University of Maryland, College Park	1991-present

### Research Interests

Theoretical statistical mechanics and condensed matter physics with emphasis on nonequilibrium properties.

## **THEODORE ROSS KIRKPATRICK**

### Selected Professional Activities

#### **I Conferences and Workshops organized or co-organized**

Symposium in Honor of E.G.D. Cohen - 1988

Aspen Winter School on Localization - January 1990

Symposium in Honor of M. E. Fisher - 1991

Workshop on Quantum Phase Transitions, Telluride, Colorado, July 1995

Localization 1996 Conference, Eugene, Oregon - July 1996

Dynamical Theory Conference, Leiden, The Netherlands, July 1998

Localization 1999 Conference, Hamburg, Germany, August 1999

Symposium in Honor of J. R. Dorfman, 2002

Workshop on Quantum Phase Transitions, Dresden, Germany, June-July 2003

#### **II National Panels**

Department of Energy Panel on Superconductivity - 1991

Department of Energy Panel on Microgravity - 1993

Department of Energy Panel on Strongly Correlated Electron Systems - 1996

National Science Foundation Panel for the site visit to the Institute of Theoretical Physics in Santa Barbara - 1999

National Science Foundation Panel on Mathematical Physics - 2000

#### **III Editorial Boards**

Physical Review Letters - Condensed Matter Division Associate Editor 2001-2003

## THEODORE ROSS KIRKPATRICK

### Publications

1. "Kinetic Theory of Light Scattering From a Fluid Not in Equilibrium", T. R. Kirkpatrick, E.G.D. Cohen, and J. R. Dorfman, Phys. Rev. Lett. 42, 862-865 (1979).
2. "Hydrodynamic Theory of Light Scattering From a Fluid in a Nonequilibrium Steady State", T. R. Kirkpatrick, E. G. D. Cohen, and J. R. Dorfman, Phys. Rev. Lett. 44, 472-475 (1980).
3. "Light Scattering in a Fluid Far From Equilibrium", T. R. Kirkpatrick and E.G.D. Cohen, Phys. Lett. 78A, 350-353 (1980).
4. "Kinetic Theory of Dense Gases Not in Equilibrium", J. R. Dorfman and T. R. Kirkpatrick in Systems Far From Equilibrium, L. Garrido, ed. (Springer-Verlag, 1980), pp. 263-289.
5. "Pair Correlation Function Near a Convective Instability", T. R. Kirkpatrick and E.G.D. Cohen, Phys. Lett. 88A, 44-47 (1982).
6. "Time Dependent Transport in a Fluid with Static Traps", T. R. Kirkpatrick, J. Chem. Phys. 76, 4255-4258 (1982).
7. "Fluctuations in a Nonequilibrium Steady State: Basic Equations", T. R. Kirkpatrick E.G.D. Cohen, and J. R. Dorfman, Phys. Rev. A26, 950-971 (1982).
8. "Light Scattering by a Fluid in a Nonequilibrium Steady State: I-Small Gradients", T. R. Kirkpatrick, E.G.D. Cohen, and J. R. Dorfman, Phys. Rev. A26, 972-994 (1982).
9. "Light Scattering by a Fluid in a Nonequilibrium Steady State: II-Large Gradients", T. R. Kirkpatrick, E.G.D. Cohen, and J. R. Dorfman, Phys. Rev. A26, 995-1014 (1982).
10. "Electron Mobility in Gases at Low Temperatures: The Quantum Mechanical Lorentz Gas, I", T. R. Kirkpatrick and J. R. Dorfman, J. Stat. Phys. 30, 67-106 (1983).
11. "Divergences and Long Time Tails in Two and Three Dimensional Hard Core Quantum Lorentz Gases, T. R. Kirkpatrick and J. R. Dorfman, Phys. Rev. A28, 1022-1046 (1983).
12. "Transport Theory for a Weakly Interacting Condensed Bose Gas", T. R. Kirkpatrick and J. R. Dorfman, Phys. Rev. A28, 2576-2579 (1983).
13. "Kinetic Theory of Fluctuations Near a Convective Instability", T. R. Kirkpatrick and E.G.D. Cohen, J. Stat. Phys. 33, 639-694 (1984).
14. "Kinetic Theory of Fluctuations in Fluids Far From Equilibrium", E.G.D. Cohen and T. R. Kirkpatrick.

In Statistical Physics and Chaos in Fusion Plasmas, C. W. Horton and L. E. Reichl, ed. (John Wiley and Sons, 1984), p. 171.

15. "Long Range Boundary Effects in Simple Fluids", J. C. Nieuwoudt, T. R. Kirkpatrick and J. R. Dorfman, J. Stat. Phys. 34, 203-223 (1984).

### **THEODORE ROSS KIRKPATRICK**

#### **Publications** (cont'd)

16. "Nonanalytic Hydrodynamic Dispersion Relations in Superfluid Helium", T. R. Kirkpatrick Phys. Rev. B 29, 3966-3974 (1984).
17. "Correlation Functions in Quantum Hard Sphere Fluids at Short Times or High Frequencies and High Energy Neutron Scattering", T. R. Kirkpatrick, Phys. Rev. B 30 1266-1281 (1984).
18. "Anomalous Diffusion of Charged Particles in a Strong Magnetic Field", M. C. Marchetti, T. R. Kirkpatrick and J. R. Dorfman, Phys. Rev. A 29, 2960-2962 (1984).
19. "Large Long Time Tails and Shear Waves in Dense Classical Liquids", T. R. Kirkpatrick Phys. Rev. Lett. 53, 1735-1738 (1984).
20. "Transport in a Dilute but Condensed Nonideal Bose Gas: Kinetic Equations", T. R. Kirkpatrick and J. R. Dorfman, J. Low Temp. Phys. 58, 301-331 (1985).
21. "Transport Coefficients in a Dilute but Condensed Bose Gas", T. R. Kirkpatrick and J. R. Dorfman, J. Low Temp. Phys. 58, 399-415 (1985).
22. "Time Correlation Functions and Transport Coefficients in a Dilute Super-fluid", T. R. Kirkpatrick and J. R. Dorfman, J. Low Temp. Phys. 59, 1-18 (1985).
23. "Aspects of Localization", T. R. Kirkpatrick and J. R. Dorfman in Fundamental Problems in Statistical Mechanics, VI E.G.D. Cohen, ed. (North Holland, 1985) pp. 365-398.
24. "Mode Coupling Theory of the Glass Transition", T. R. Kirkpatrick, Phys. Rev. A31, 939-943 (1985).
25. "Localization of Acoustic Waves", T. R. Kirkpatrick, Phys. Rev. B 31, 5746-5755 (1985).
26. "Generalized Hydrodynamic Equations for Hard Sphere Particles and Short Wavelength Collective Modes", T. R. Kirkpatrick, Phys. Rev. A32, 3130-3133 (1985).
27. "Nonlinear Current Fluctuation in a Metallic Resistor at Low Temperatures", T. R. Kirkpatrick and J. R. Dorfman, Phys. Rev. Lett. 54, 2631-2634 (1985).
28. "Kinetic Equation for a Weakly Interacting Electron Gas", M. C. Marchetti, T. R. Kirkpatrick, J. R. Dorfman, and E.G.D. Cohen, J. Stat. Phys. 41, 37-93 (1985).

29. "Kinetic Theory of Long Time Tails in Velocity Correlation Functions in a Moderately Dense Electron Gas", M. C. Marchetti and T. R. Kirkpatrick, J. Stat. Phys. 41, 621-660 (1985).
30. "Initial State Dependence of Nonlinear Kinetic Equations: The Classical Electron Gas", M. C. Marchetti, E.G.D. Cohen, J. R. Dorfman and T. R. Kirkpatrick, J. Stat. Phys. 41, 75-93 (1985).
31. "Mode Coupling Theory of Long Time Tails in a Classical Electron Gas", M. C. Marchetti and T. R. Kirkpatrick, Phys. Rev. A32, 2981-2989 (1985).

## **THEODORE ROSS KIRKPATRICK**

### **Publications** (cont'd.)

32. "Localization and Scattering of Acoustic Waves in a One-Dimensional Random System: A Proposed Experiment", C. A. Condat and T. R. Kirkpatrick, Phys. Rev. B32, 495-498 (1985).
33. "Third Sound Propagation on a Periodic Substrate", C. A. Condat and T. R. Kirkpatrick Phys. Rev. B32, 4392-4397 (1985).
34. "Anomalous Mode Coupling Effects in Dense Classical Liquids", T. R. Kirkpatrick J. of Non-Crystalline Solids 75, 437-442 (1985).
35. "Molecular Dynamics Study of Self-Diffusion in a Thin Film Lennard-Jones System", S. Das Sarma, K. E. Khor, Sun-Mok Paik and T. R. Kirkpatrick, Chem. Phys. Lett. 120, 97-101 (1985).
36. "Anderson Localization and Delocalization in an Electric Field", T. R. Kirkpatrick Phys. Rev. B 33, 780-788 (1986).
37. "Recent Results in the Kinetic Theory of Hard Sphere Systems", J. R. Dorfman and T. R. Kirkpatrick in Molecular Dynamics Simulations of Statistical-Mechanical Systems, G. Ciccotti and W. Hoover, eds. (Plenum Press, New York, 1987) pp. 260-293.
38. "Mode Coupling Theory of the Large Long Time Tails in the Stress-Tensor Autocorrelation Function", T. R. Kirkpatrick and J. C. Nieuwoudt, Phys. Rev. A33, 2651-2657 (1986).
39. "Mode Coupling Theory of the Intermediate Time Behavior of the Velocity Autocorrelation Function", T. R. Kirkpatrick and J. C. Nieuwoudt, Phys. Rev. A33, 2658-2662 (1986).
40. "Localization and Resonant Transmission of Third-Sound Waves on a Random Substrate", C. A. Condat and T. R. Kirkpatrick, Phys. Rev. B33, 3102-3114 (1986).
41. "Stability Analysis of a Dense Hard Sphere Fluid Subjected to a Large Shear-Shear Induced Ordering", T. R. Kirkpatrick and J. C. Nieuwoudt, Phys. Rev. Lett 56, 885-888 (1986).
42. "Time Correlation Functions and Transport in Dense Simple Liquids", T. R. Kirkpatrick, Kinam 7A, 121-134 (1986).

43. "Universal Coefficients of Perturbation Expansion for the Anderson Localization Problem", D. Belitz and T. R. Kirkpatrick, Phys. Rev. B33, 7332-7335 (1986).
44. "Non-Analytic Behavior of Ultrasonic Attenuation in Disordered Electronic Systems", T. R. Kirkpatrick and D. Belitz, Phys. Rev. B34, 2168-2175 (1986).
45. "Ordering in the Parallel Hard Hyper-Cube Gas", T. R. Kirkpatrick, J. Chem. Phys. 85, 3515-3519 (1986).
46. "On the Observability of Acoustical and Optical Localization", C. A. Condat and T. R. Kirkpatrick, Phys. Rev. Letts. 58, 226-229 (1987).

### **THEODORE ROSS KIRKPATRICK**

#### **Publications** (cont'd.)

47. "Crossover in the Anderson Transition: Acoustic Localization with a Flow", S. M. Cohen, J. Machta, T. R. Kirkpatrick and C. A. Condat, Phys. Rev. Lett. 58, 785-788 (1987).
48. "Hydrodynamic Theory of Electron Transport in a Strong Magnetic Field", M. C. Marchetti, T. R. Kirkpatrick, and J. R. Dorfman, J. Stat. Phys. 46, 679-708 (1987).
49. "On the Kinetics of Crystal Growth from a Supercooled Melt", B. Bagchi and T. R. Kirkpatrick, Proc. Ind. Acad. Sci. (Chem. Sci.) 96, 465472 (1986).
50. "Critical Behavior of Transverse Sound Attenuation at a Mobility Edge", T. R. Kirkpatrick and D. Belitz, Phys. Rev. B34, 9008-9111 (1986).
51. "On the Connection Between Some Kinetic and Equilibrium Theories of Glasses", T. R. Kirkpatrick and P. G. Wolynes, Phys. Rev. A 35, 3072-3079 (1987).
52. "Acoustic Localization in One Dimension in the Presence of a Flow Field", C. A. Condat, T. R. Kirkpatrick and S. M. Cohen, Phys. Rev. B 35, 4653-4661 (1987).
53. "Dynamics of the Structural Glass Transition and the P-Spin Interaction Spin Glass Model", T. R. Kirkpatrick and D. Thirumalai, Phys. Rev. Lett. 58, 2091-2094 (1987).
54. "Dynamics of the Structural Glass Transition and the P-Spin Interaction Spin Glass Model", T. R. Kirkpatrick and D. Thirumalai, Phys. Rev. B36, 5388-5397 (1987).
55. "Stable and Metastable States in Mean Field Potts and Structural Glasses", T. R. Kirkpatrick and P. G. Wolynes, Phys. Review B36, 8552-8564 (1987).
56. "A Mean Field Soft Spin Potts Glass Model: Statics and Dynamics", T. R. Kirkpatrick and D. Thirumalai, Phys. Rev. B37, 5342-5350 (1988).
57. "Acoustic Localization and Resonant Scattering", C. A. Condat and T. R. Kirkpatrick, Phys. Rev. B36,

6782-6793 (1987).

58. "A Comparison Between Dynamical Theories and Metastable States in Regular and Glassy Mean Field Spin Models with Underlying First-Order-Like Phase Transitions", T. R. Kirkpatrick and D. Thirumalai, Phys. Rev. A37, 4439-4448 (1988).
59. "Random Solutions From a Regular Density Functional Hamiltonian: A Static and Dynamical Theory for the Structural Glass Transition", T. R. Kirkpatrick and D. Thirumalai, J. Phys. A 22, L149-155 (1989).
60. "Mean Field Potts Glass Model: Initial Condition Effects on Dynamics and Properties of Metastable States", D. Thirumalai and T. R. Kirkpatrick, Phys. Rev. B 38, 4881-4892 (1988).

### **THEODORE ROSS KIRKPATRICK**

#### **Publications** (cont'd.)

61. "Localization of Acoustic Waves", C. A. Condat and T. R. Kirkpatrick in Classical Localization Ping Sheng, editor (World Scientific, Singapore, 1989).
62. "Microscopic Theory of Dynamics in an Orientationally Ordered Fluid", T. R. Kirkpatrick J. Chem. Phys. 89, 5020-5032 (1988).
63. "Interacting Disordered Electrons and the Metal-Insulator Transition: The Field Theoretic Approach Reanalyzed", D. Belitz and T. R. Kirkpatrick, Nuc. Phys. B 316, 509-525 (1989).
64. "Ergodic Behavior in Supercooled Liquids and in Glasses", D. Thirumalai, R. D. Mountain, and T. R. Kirkpatrick Phys. Rev. A 39, 3563-3574 (1989).
65. "Infinite Range Ising Spin Glass in a Transverse Field", D. Thirumalai, Q. Li and T. R. Kirkpatrick, J. Phys. A 22, 3339-3349 (1989).
66. "Scaling and Droplet Notions for the Dynamics of Viscous Liquids Near an Ideal Glassy State", T. R. Kirkpatrick, D. Thirumalai and P. G. Wolynes, Phys. Rev. A 40, 1045-1054 (1989).
67. "Existence of a Phase Transition in Finkel'shtein's Model for a Disordered Fermi Liquid", T. R. Kirkpatrick and D. Belitz, Phys. Rev. B 40, 5227-5230 (1989).
68. "Does the Velocity Auto-Correlation Function Oscillate in a Hard Sphere Crystal?", T. R. Kirkpatrick, J. Stat. Phys. 57, 483-496 (1989).
69. "Crossover and Scaling Phenomena in a Disordered Fermi Liquid", D. Belitz and T. R. Kirkpatrick, Phys. Rev. Lett. 63, 1296-1299 (1989).
70. "Mean Field Theory and Fluctuations in Potts Spin Glasses: I" G. Cwilich and T. R. Kirkpatrick, J.



Phys. A 22, 4971-4987 (1989).

71. "Stability of Dense Simple Fluids Subjected to Large Shear-Shear-Induced Ordering", T. R. Kirkpatrick and J. C. Nieuwoudt, Phys. Rev. A 40, 5238-5248 (1989).
72. "Approaching the Metal Insulator Transition", T. R. Kirkpatrick and D. Belitz, Phys. Rev. B 41, 11082-11100 (1990).
73. "Kinetic Theory of Transport in a Hard Sphere Crystal", T. R. Kirkpatrick, Shankar P. Das, M. H. Ernst and J. Piasecki, J. Chem. Phys. 92, 3768-3780 (1990).
74. "Spin Freezing Transition in the Disordered Electron Problem", T. R. Kirkpatrick and D. Belitz, J. Phys. Condens. Matter 2, 5259-5264 (1990).
75. "Self-Avoiding Walks and Manifolds in Random Environments", J. Machta and T. R. Kirkpatrick, Phys. Rev. A 41, 5345-5356 (1990).

## **THEODORE ROSS KIRKPATRICK**

### **Publications** (cont'd.)

76. "Magnetic Anomalies in Disordered Electronic Systems", D. Belitz and T. R. Kirkpatrick, Physica A 167, 259-278 (1990).
77. "Disorder Induced Triplet Superconductivity", T. R. Kirkpatrick and D. Belitz, Phys. Rev. Lett. 66, 1533-1536 (1991).
78. "A New Phase of Disordered Fermi Systems", D. Belitz and T. R. Kirkpatrick Phys. Rev. B 44, 955-968 (1991).
79. "Direct Calculation of Conductance and Conductance Fluctuations in a Disordered Fermi Liquid", C. V. De Souza and T. R. Kirkpatrick, Phys. Rev. B 43, 10132-10142 (1991).
80. "Critical Behavior of Ultrasonic Attenuation Near Interactive Driven Metal-Insulator Transitions", V. Dobrosavljevic, T. R. Kirkpatrick, C. Chen and D. Belitz, Phys. Rev. B 44, 5432-5443 (1991).
81. "Crossover Behavior for a Noninteracting Disordered Electronic System in the Presence of a Weak Magnetic Field", Jian-Yang Yuan and T. R. Kirkpatrick, J. Stat. Phys. 64, 309 (1991).
82. "Soft Modes in CA-Fluids at Finite Waves Numbers", R. Brito, M. H. Ernst and T. R. Kirkpatrick in Proceedings Euromech Colloquium 267. Coimbra. Portugal Series on Advances in Mathematics for Applied Sciences, A. S. Alves, editor (World Scientific, Singapore, 1990).
83. "Staggered Diffusivities in Lattice Gas Cellular Automata", R. Brito, M. H. Ernst and T. R. Kirkpatrick, J. Stat. Phys. 63, 283 (1991).
84. "New Phases of the Disordered Fermi Liquid", D. Belitz and T. R. Kirkpatrick in Localization 1990:

- International Conference on Localization, K. A. Benedict and J. T. Chalker; eds. IOP Physics Conference Series vol. 108, p. 41-52.
85. "Kinetic Theory for Lattice Gas Cellular Automata", T. R. Kirkpatrick and M. H. Ernst, Phys. Rev. A 44, 8051-8061 (1991).
  86. "A New Universality Class for the Metal-Insulator Transition Problem", T. R. Kirkpatrick and D. Belitz, J. Phys. Cond. Matt. 4, L37-L42 (1992).
  87. "Critical Behavior at the Pseudo-Magnetic Phase Transition in Disordered Fermi Liquids", T. R. Kirkpatrick and D. Belitz, Phys. Rev. B 45, 3187-3197 (1992).
  88. "Disordered p-Spin Interaction Models on Husimi Trees", H. Rieger and T. R. Kirkpatrick, Phys. Rev. B 45, 9722-9777 (1992).
  89. "Even Parity Spin-Triplet Superconductivity in Disordered Electronic Systems", D. Belitz and T. R. Kirkpatrick, Phys. Rev. B 46, 8393-8408 (1992).

### **THEODORE ROSS KIRKPATRICK**

#### **Publications** (cont'd.)

90. "Kondo Effect Near the Metal-Insulator Transitions", V. Dobrosavljevic, T. R. Kirkpatrick and B. G. Kotliar, Phys. Rev. Lett. 69, 1113-1116 (1992).
91. "Suppression of Superconductivity by Disorder", T. R. Kirkpatrick and D. Belitz, Phys. Rev. Lett 68, 3232-3235 (1992).
92. "Logarithmic Corrections to Scaling Near the Metal-Insulator Transition", T. R. Kirkpatrick and D. Belitz, Phys. Rev. Lett.70, 974-977 (1993)
93. "Critical Behavior of the Density of States at the Metal-Insulator Transition", D. Belitz and T. R. Kirkpatrick Phys. Rev. B 48, 14072-14079 (1993).
94. "Cooperons at the Metal-Insulator Transition Revisited: Constraints on the Renormalization Group and a Conjecture", T. R. Kirkpatrick and D. Belitz, Phys. Rev. B 50, 8272-8287 (1994).
95. "The Anderson-Mott Transition", D. Belitz and T. R. Kirkpatrick, Rev. Mod. Phys.66, 261-380 (1994).
96. "The Disordered Electron Problem: From the Metal-Insulator Transition to Disordered Superconductors", D. Belitz and T. R. Kirkpatrick, in 'Ordering Disorder: Prospect and Retrospect in Condensed Matter Physics', edited by V. Srivastava, A. K. Bhatuaga, and D. G. Naugle, AIP Cont. Proc. No. 286 (AIP, New York, 1994).
97. "Generic Long-Range Correlations in Molecular Fluids", J. R. Dorfman, T. R. Kirkpatrick and J. V. Sengers, Ann. Rev. Phys. Chem. 45, 213-239 (1994).

98. "Landau Theory for the Metal-Insulator Transition", T. R. Kirkpatrick and D. Belitz, Phys. Rev. Lett. 73, 862-866 (1994).
99. "Density Expansion for the Mobility of Electrons in Helium Gas", K.I. Wysokinski, W. Park, D. Belitz and T. R. Kirkpatrick, Phys. Rev. Lett. 73, 2571-2575 (1994).
100. "The Anderson-Mott Transition as a Random Field Problem", T. R. Kirkpatrick and D. Belitz, Phys. Rev. Lett. 74, 1178-1181 (1995).
101. "Order Parameter Description of the Anderson-Mott Transition", D. Belitz and T. R. Kirkpatrick, Z. Phys. B 13, 513-526 (1995).
102. "Superconductor Glass Phase in Strongly Disordered Bulk Systems", A. Latz and T. R. Kirkpatrick, J. Phys. Cond. Matt. 7, L103-107 (1995).
103. "Density Expansion for the Mobility in a Quantum Lorentz Gas", K. I. Wysokinski, W. Park, D. Belitz and T. R. Kirkpatrick, Phys. Rev. E52, 612 (1995).

## **THEODORE ROSS KIRKPATRICK**

### **Publications** (cont'd.)

104. "Long Range Correlations in Nonequilibrium Lorentz Gases", M. Yoshimura and T. R. Kirkpatrick, Phys. Rev. E 52, 2676 (1995).
105. "Are Disordered Spin Glass Models Relevant for the Structural Glass Problem?", T. R. Kirkpatrick and D. Thirumalai, Transport Theory and Statistical Physics, 24, 927 (1995).
106. "The Cavity Approach for Metastable Glassy States Near Random First Order Phase Transitions", T. R. Kirkpatrick and D. Thirumalai, J. de Phys. I5, 777 (1995).
107. "Anderson-Mott Transition as a Quantum Glass Problem", D. Belitz and T. R. Kirkpatrick Phys. Rev. B52, 13922-13935 (1995).
108. "Quantum Ferromagnetic Transition in Disordered Itinerant Electron Systems", D. Belitz and T. R. Kirkpatrick, Europhys. Lett. 35, 201-206 (1996).
109. "Quantum Critical Behavior of Disordered Itinerant Ferromagnets", T. R. Kirkpatrick and D. Belitz, Phys. Rev. B53, 14364-14376 (1996).
110. "Long-Range Order-Versus Random Singlet Phases in Antiferromagnetic Systems with Quenched Disorder", T. R. Kirkpatrick and D. Belitz, Phys. Rev. Lett. 76, 2571-2574 (1996).
111. "Long-Range Correlations and Generic Scale Invariance in Classical Fluids and Disordered Electron Systems", T. R. Kirkpatrick and D. Belitz, J. Stat. Phys. 87, 1307-1322 (1997).
112. "Breakdown of Landau-Ginzburg-Wilson Theory for Certain Quantum Phase Transitions", Thomas

- Vojta, D. Belitz, R. Narayanan, and T. R. Kirkpatrick, *Europhys. Lett.* **36**, 191-196 (1996)
113. "Long-Range Correlations in Nonequilibrium Disordered Electronic Systems", M. Yoshimura and T. R. Kirkpatrick, *Phys. Rev. B* **54** 7109-7120 (1996).
114. "Nonanalytic Behavior of the Spin Susceptibility in Clean Fermi Systems", D. Belitz, T. R. Kirkpatrick and Thomas Vojta, *Phys. Rev. B* **55**, 9452-9462 (1997).
115. "Quantum Critical Behavior of Itinerant Ferromagnets", D. Belitz and T. R. Kirkpatrick, *J. Phys. Conden. Matter* **8**, 9707-9722 (1996).
116. "A Metal-Insulator Transition as a Quantum Glass Problem", T. R. Kirkpatrick and D. Belitz, in *Complex Behavior of Glassy Systems*, M. Rubi ed. (Springer-Verlag, 1997), pp. 241-255.
117. "Quantum Critical Behavior of Clean Itinerant Ferromagnets", Thomas Vojta, D. Belitz, R. Narayanan, and T. R. Kirkpatrick, *Z. Phys. B* **103**, 451-461 (1997).
118. "An Effective Field-Theory Approach to Persistent Currents", H. J. Bussemaker and T. R. Kirkpatrick *Phys. Rev. B* **56** 4529-4540 (1997).
119. "Theory of Many-Fermion Systems", D. Belitz and T. R. Kirkpatrick *Phys. Rev. B* **56**, 6513-6541 (1997).

### **THEODORE ROSS KIRKPATRICK**

#### **Publications** (cont'd.)

120. "Quantum Phase Transitions in Electronic Systems", T. R. Kirkpatrick and D. Belitz, in *Electron Correlations in the Solid State*, Norman H. March (editor) Imperial College Press (London 1999), p. 297-370.
121. "Metal-superconductor-transition at Zero Temperature: A case of unusual scaling", T. R. Kirkpatrick and D. Belitz, *Phys. Rev. Lett.* **79**, 3042-3045 (1997).
122. "Are MOSFETs Triplet Superconductors?", T. R. Kirkpatrick and D. Belitz, *Phys. Rev. B* **58**, 8214 (1998).
123. "Theory of Many-fermions Systems II: The case of Coulomb interactions", D. Belitz, F. Evers, and T. R. Kirkpatrick, *Phys. Rev. B* **58**, 9710-9723 (1998).
124. "Spin Wave Dispersion in Itinerant Quantum Magnets", D. Belitz, T. R. Kirkpatrick, A. J. Millis, and Thomas Vojta, *Phys. Rev. B* **58**, 14155-14158 (1998).
125. "Quantum Kinetic Theory: The Disordered Electron Problem", T. R. Kirkpatrick and D. Belitz, in *Dynamics: Models and Kinetic Methods for Nonequilibrium Many-Body Systems*, John Karkheck (editor) Kluwer-Academic Publisher (Dordrecht, 2000) p. 379-398.
126. "Quantum Phase Transitions", D. Belitz and T. R. Kirkpatrick, in *Dynamics: Models and Kinetic*

*Methods for Nonequilibrium Many-Body Systems*, John Karkheck (editor) Kluwer-Academic Publisher (Dordrecht, 2000), p. 399-424.

127. "Properties of Spin-Triplet, Even-Parity Super-Conductors", D. Belitz and T. R. Kirkpatrick, Phys. Rev. B 60, 3185-3498 (1999).
128. "First Order Transitions and Multicritical Points in Weak Itinerant Ferromagnets", D. Belitz, T. R. Kirkpatrick, and Thomas Vojta, Phys. Rev. Lett. 82, 4707-4710 (1999).
129. "Influence of Rare Regions on Magnetic Quantum Phase Transitions", Rajesh Narayanan, Thomas Vojta, D. Belitz, and T. R. Kirkpatrick, Phys. Rev. Lett. 82, 5132-5235 (1999).
130. "On the Critical Behavior of Disordered Quantum Magnets: The Relevance of Rare Regions", Rajesh Narayanan, Thomas Vojta, D. Belitz, and T. R. Kirkpatrick, Phys. Rev. B 60, 10150-10163 (1999).
131. "The Disordered Fermi-Liquid Fixed Point and its Instabilities", D. Belitz and T. R. Kirkpatrick, Ann. Phys. (Leipzig) 8, 765-774 (1999).
132. "Rare Regions and Annealed Disorder on Quantum Phase Transitions", R. Narayanan, Thomas Vojta, D. Belitz, and T. R. Kirkpatrick, Ann. Phys. (Leipzig) 8, 185-188 (1999).
133. "Quantum Critical Behavior of Itinerant Ferromagnets", Thomas Vojta, D. Belitz, T. R. Kirkpatrick, and R. Narayanan, Ann. Phys. (Leipzig) 8, 593-602 (1999).

## **THEODORE ROSS KIRKPATRICK**

### **Publications** (cont'd.)

134. "The Influence of Anderson Localization on the Mode Decay of Excited Nonlinear Systems", K. A. Snyder and T. R. Kirkpatrick, Ann. Phys. (Leipzig) 8, 241-244 (1999).
135. "Theory of Disordered Itinerant Ferromagnets I: Metallic Phase", T. R. Kirkpatrick and D. Belitz, Phys. Rev. B 62, 952-965 (2000).
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### **THEODORE ROSS KIRKPATRICK**

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