

CURRICULUM VITAE OF DANIEL L. STEIN

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Education

Ph.D., Condensed Matter Theory, Princeton University, 1979.
Adviser: P.W. Anderson.
M.S. in Physics, Princeton University, 1977.
Sc.B. in Physics, Brown University, 1975.

Honors and Awards

John Simon Guggenheim Memorial Foundation Fellowship, 2014–2015
Exemplary Civilian Service Medal, U.S. Air Force, 2012
Fellow of the American Association for the Advancement of Science,
elected 2008
Provost Faculty Fellow, New York University, 2005–2006
Fellow of the American Physical Society, elected 1999
UA Commission on the Status of Women Vision 2000 Award, 1999
UA College of Science Distinguished Teaching Award, 1995
Alfred P. Sloan Fellow, 1985–1989
C.E. Proctor Graduate Fellow, Princeton University, 1978–1979
Brown University Undergraduate Physics Prize, 1975

Appointments

2018–	External Professor, Santa Fe Institute
2006–2012	Dean of Science, Faculty of Arts & Science, New York University
2005–	Professor of Physics and Mathematics, New York University
1997–2005	Professor of Mathematics, University of Arizona
1995–2005	Head, Department of Physics, University of Arizona
1993–2005	Professor of Physics, University of Arizona
1989–2002	Member of External Faculty, The Santa Fe Institute, Santa Fe, NM
1988–2005	Member of Applied Mathematics Program, University of Arizona
1987–1993	Associate Professor of Physics, University of Arizona
1980–1987	Assistant Professor of Physics, Princeton University
1980–1980	Instructor, Princeton University
1979–1980	Research Associate, Princeton University

Other Professional Activities

2022–	Advisory Board, William Hurt Scholars Program, Caltech
2017–	External Examiner for Undergraduate Science Program, University of Hong Kong
2015–	Co-Director, Joint Physics Research Institute, NYU Shanghai
2013–2016	Co-Chair, Science Board, Santa Fe Institute
2013–2017	External Examiner in Physics, University of Hong Kong
2008–2012	Member, Air Force Scientific Advisory Board
2006–2007	Chair, APS Onsager Prize Selection Committee
2006–	Honorary Member, Scientific Board, Marmaris Center for Theoretical and Applied Physics, Marmaris, Turkey.
2005–2006	Vice Chair, APS Onsager Prize Selection Committee
2003–	Honorary General Member, Aspen Center for Physics
1999–2002	Scientific Steering Committee, Santa Fe Institute
1999–2001	Treasurer, Aspen Center for Physics
1995–1997	Member, American Physical Society Committee on Membership
1995–1997	Assistant Treasurer, Aspen Center for Physics
1994–1995	Member, American Physical Society Committee on Oversight of Publications
1992–1995	Trustee, Aspen Center for Physics
1991–1999, 2001–	Member, Science Board, Santa Fe Institute
1988–1998	Director, Complex Systems Summer School, Santa Fe Institute
1989–1990	Secretary, Aspen Center for Physics
August 1989	Member, Space Launch Strategy Task Force, Defense Science Board
1988–2014	Consultant, Institute for Defense Analyses
1987–2003	General Member, Aspen Center for Physics
1985–1988	Member, Defense Science Study Group, Institute for Defense Analyses
1984–1986	Consultant, AT&T Bell Laboratories, Murray Hill, N.J.
June 1980	Consultant, Xerox Palo Alto Research Laboratories

Editorial Boards

2008–	Member of Editorial Board, <i>Advances in Condensed Matter Physics</i>
2000–2003	Member of Editorial Board, <i>Journal of Statistical Physics</i>
1994–2002	Book Review Editor, <i>Complexity</i>
1991–1996	Steering Committee, Colloquia Series, <i>Reviews of Modern Physics</i>

Professional Societies

American Physical Society
New York Academy of Sciences
American Association for the Advancement of Science
Association for Mathematical Research (founding member)

Publications

July 19, 2022

1. “Boundary Value Problem Involving a Simple Fokker-Planck Equation”, D.L. Stein and I.B. Bernstein, *Phys. Fluids* **19**, 811 – 814 (1976).
2. “Boojums in Superfluid $^3\text{He-A}$ and Cholesteric Liquid Crystals”, D.L. Stein, R.D. Pisarski and P.W. Anderson, *Phys. Rev. Lett.* **40**, 1269 – 1272 (1978).
3. “Kosterlitz-Thouless Phase Transitions in Two-Dimensional Liquid Crystals”, D.L. Stein, *Phys. Rev. B* **19**, 2397 – 2399 (1978).
4. “A Topological Theorem and its Applications to Condensed Matter Systems”, D.L. Stein, *Phys. Rev. A* **19**, 1708 – 1711 (1979).
5. “Phase Transitions in Two-Dimensional Superfluid ^3He ”, D.L. Stein and M.C. Cross, *Phys. Rev. Lett.* **42**, 504 – 507 (1979).
6. “Localization in Impurity Bands”, L. Fleishman and D.L. Stein, *J. Phys. C* **12**, 4817 – 4825 (1979).
7. “A Finite-Circuit-Element Code for Modeling the Compression of a Gyration Charged-Particle Beam”, D.L. Book, P.J. Turchi, and D.L. Stein, *J. Comp. Phys.* **33**, 271 – 289 (1979).
8. “Surface Singularities in Nematics and Some Notes on Cholesterics”, R.D. Pisarski and D.L. Stein, *J. Phys. (Paris)* **41**, 345 – 349 (1980).
9. “Optical vs. Transport Processes in Chalcogenide Glass”, D.C. Licciardello and D.L. Stein, *J. Phys. Chem.* **13**, L391 – L396 (1980).
10. “Dissipative Structures, Broken Symmetry, and the Theory of Equilibrium Phase Transitions”, D.L. Stein, *J. Chem. Phys.* **72**, 2869 – 2874 (1980).
11. “Are Grand Unified Theories Compatible with Standard Cosmology?”, M.B. Einhorn, D.L. Stein and D. Toussaint, *Phys. Rev. D* **21**, 3295 – 3298 (1980).
12. “Topological Physics Illustrated in the Laboratory”, T. Rosenbaum and D.L. Stein, *Am. J. Phys.* **49**, 128 – 133 (1981).
13. “Critical Behavior of Linear Φ^4 Models with $G \times G'$ Symmetry”, R.D. Pisarski and D.L. Stein, *Phys. Rev. B* **23**, 3549 – 3552 (1981).

14. “Excitations and Metastability in Amorphous Semiconductors”, D.C. Licciardello, D.L. Stein and F.D.M. Haldane, *Phil. Mag.* **43**, 189 – 201 (1981).
15. “The Renormalization Group and Global $G \times G'$ Theories about Four Dimensions”, R.D. Pisarski and D.L. Stein, *J. Phys. A* **14**, 3341 – 3355 (1981).
16. “P-Wave Superfluidity in Neutron Stars and ^3He ”, J.A. Sauls and D.L. Stein, *Physica B+C* **107**, 55 – 56 (1981).
17. “Magnetic Vortices in a Rotating 3P_2 Neutron Superfluid”, J.A. Sauls, D.L. Stein and J. Serene, *Phys. Rev. D* **25**, 967 – 975 (1982).
18. “Evidence for Magnetic Coupling in the Thermal Boundary Resistance Between Liquid ^3He and Platinum”, T. Perry, K. Deconde, D.L. Stein, and J. Sauls, *Phys. Rev. Lett.* **48**, 1831 – 1834 (1982).
19. “Ground State of Superfluid $^3\text{He-A}$ in a Sphere”, P. Hirschfeld and D.L. Stein, *J. Low Temp. Phys.* **51**, 257 – 263 (1983).
20. “A One-Dimensional Spin Glass Model with Long-Range Random Interactions”, G. Kotliar, P.W. Anderson, and D.L. Stein, *Phys. Rev. B* **27**, 602 – 605 (1983).
21. “Vortices in Rotating $^3\text{He-A}$ ”, A.L. Fetter, J.A. Sauls, and D.L. Stein, *Phys. Rev. B* **28**, 5061 – 5074 (1983).
22. “Broken Symmetry, Emergent Properties, Dissipative Structures, Life and Its Origin: Are They Related?”, P.W. Anderson and D.L. Stein, in *Basic Notions of Condensed Matter Physics*, P.W. Anderson (Benjamin-Cummings, CA, 1984), pp. 262 – 287.
23. “A Thermodynamic Model of the Lamellar (L_α) to Hexagonal (H_{II}) Phase Transition in Liquid-Water Membranes”, G. Kirk, S. Gruner, and D.L. Stein, *Biochemistry* **23**, 1093 – 1102 (1984).
24. “NMR of Textures in Rotating $^3\text{He-A}$ ”, V.Z. Vulovic, D.L. Stein, and A.L. Fetter, *Phys. Rev. B* **29**, 6090 – 6095 (1984).
25. “A Proposed Method for Polarizing Liquid ^3He ”, S.A. Langer, K. DeConde, and D.L. Stein, *J. Low Temp. Phys.* **57**, 249 – 263 (1984).
26. “A Model for the Origin of Biological Catalysis”, D.L. Stein and P.W. Anderson, *Proc. Natl. Acad. Sci. USA* **81**, 1751 – 1753 (1984).
27. “Paramagnon Contribution to Nuclear Spin Relaxations in Nearly Magnetic Fermi Systems”, P. Hirschfeld and D.L. Stein, in *LT-17*, eds. U. Eckern, A. Schmidt, W. Weber and H. Wuhl (Elsevier, 1984), pp. 135 – 136.

28. "Theory of Dynamic Polarization of Liquid ^3He ", K. DeConde, S.A. Langer, and D.L. Stein, in *LT-17*, eds. U. Eckern, A. Schmidt, W. Weber and H. Wuhl, (Elsevier, 1984), pp. 477 – 478.
29. "A Model for the Origin of Biological Information", D.L. Stein, *Int. J. Quant. Chem: Biology Symposium* **11**, 73 – 86 (1984).
30. "Models of Hierarchically Constrained Dynamics for Glassy Relaxation", R.G. Palmer, D.L. Stein, E. Abrahams and P.W. Anderson, *Phys. Rev. Lett.* **53**, 958 – 961 (1984).
31. "Broken Ergodicity in Glass", R.G. Palmer and D.L. Stein, in *Relaxation in Complex Systems*, eds. K.L. Ngai and G.B. Wright (U.S. GPO, Washington, 1985), pp. 253 – 259.
32. "A Model of Protein Conformational Substates", D.L. Stein, *Proc. Natl. Acad. Sci.* **82**, 3670 – 3672 (1985).
33. "Palmer *et al.* Respond", R.G. Palmer, D.L. Stein, E. Abrahams, and P.W. Anderson, *Phys. Rev. Lett.* **54**, 365 (1985).
34. "To Polarize Liquid ^3He by Spin Transfer", K. DeConde, S.A. Langer, and D.L. Stein, in *Workshop on Polarized ^3He Beams and Targets*, eds. R.W. Dunford and F.P. Calaprice (Am. Inst. Phys., N.Y., 1985), pp. 145 – 153.
35. "Dynamics on Ultrametric Spaces", A.T. Ogielski and D.L. Stein, *Phys. Rev. Lett.* **55**, 1634 – 1637 (1985).
36. "Selforganization in Prebiological Systems: A Model for the Origin of Genetic Information", D.S. Rokhsar, D.L. Stein, and P.W. Anderson, *J. Mol. Evol.* **23**, 119 – 126 (1986).
37. "Proteins and Disordered Systems: Static and Dynamic Properties", D.L. Stein, *Phys. Scripta* **34**, 92 – 96 (1986).
38. "The Glass Model of Proteins", D.L. Stein, *Comments on Mol. and Cell. Biophys.* **3**, 373 – 386 (1986) (invited).
39. "Two-Level Systems in Proteins: Thermodynamic and Dynamic Effects", D.L. Stein, in *Tunneling: Proceedings of the 19th Jerusalem Symposium in Quantum Chemistry and Biochemistry*, eds. J. Jortner and B. Pullman (D. Reidel Publishing Company, Dordrecht, Holland, 1986), pp. 407 – 411.
40. "Terbium Luminescence-Lifetime Heterogeneity and Protein Equilibrium Conformational Dynamics", R.H. Austin, D.L. Stein, and J. Wang, *Proc. Natl. Acad. Sci. USA*

- 84, 1541 – 1545 (1987).
41. “Condensed Matter Biophysics: Structure and Dynamics of Large Biomolecules”, D.L. Stein, in *Structure, Dynamics, and Function of Biomolecules*, eds. A. Ehrenberg, R. Rigler, A. Graslund and L. Nilsson (Springer-Verlag, Berlin, 1987), pp. 70 – 74.
 42. “Comment on ‘Intractable Computations with Golf Course Potentials’”, G. Baskaran and D.L. Stein, *Phys. Rev. Lett.* **59**, 373 (1987).
 43. “The Protein as a Glassy System”, D.L. Stein, in *Protein Structure: Molecular and Electronic Reactivity*, eds. R. Austin, E. Buhks, B. Chance, D. DeVault, P.L. Dutton, H. Frauenfelder, and V.I. Goldanskii (Springer-Verlag, NY, 1987), pp. 85 – 93.
 44. “Statics and Dynamics of Complex Systems”, D.L. Stein, in *Chance and Matter*, eds. J. Souletie, J. Vannimenus, and R. Stora (North-Holland, Amsterdam, 1987), pp. 577 – 610.
 45. “Ground State of the $\pm J$ Spin Glass”, D.L. Stein, G. Baskaran, S. Liang, and M. Barber, *Phys. Rev. B* **36**, 5567 – 5571 (1987).
 46. “The Nature of the Glass Transition”, D.L. Stein and R.G. Palmer, *Phys. Rev. B* **38**, 12 035 – 12 038 (1988).
 47. “Disordered Systems: Mostly Spin Glasses”, D.L. Stein, in *Lectures in the Sciences of Complexity*, ed. D.L. Stein (Addison-Wesley, NY, 1989), pp. 301 – 355.
 48. “Glasses I: Phenomenology”, D.L. Stein and R.G. Palmer, in *Lectures in the Sciences of Complexity*, ed. D.L. Stein (Addison-Wesley, NY, 1989), pp. 759 – 771.
 49. “Glasses II: Models for Glassy Relaxation”, R.G. Palmer and D.L. Stein, in *Lectures in the Sciences of Complexity*, ed. D.L. Stein (Addison-Wesley, NY, 1989), pp. 771 – 787.
 50. “Mean Exit Times Over Fluctuating Barriers”, D.L. Stein, R.G. Palmer, J.L. van Hemmen, and C.R. Doering, *Phys. Lett. A* **136**, 353 – 357 (1989).
 51. “Escape Over A Fluctuating Barrier: The White Noise Limit”, D.L. Stein, R.G. Palmer, C.R. Doering, J.L. van Hemmen, and R. McLaughlin, *J. Phys. A Lett.* **23**, L203 – L208 (1990).
 52. “Broken Symmetry and Domain Structure in Ising-Like Systems”, C.M. Newman and D.L. Stein, *Phys. Rev. Lett.* **65**, 460 – 463 (1990).

53. “What Can Physics Do For Biology?”, D.L. Stein, in *Molecular Evolution on Rugged Landscapes: Proteins, RNA, and the Immune Response*, eds. S. Kauffman and A. Perelson, (Addison-Wesley, Reading, MA, 1990), pp. 39 – 46.
54. “Discussion of Complexity Measures”, D.L. Stein and H. Bohr, in *Characterizing Complex Systems*, ed. H. Bohr (World Scientific, Singapore, 1990), pp. 3 – 13.
55. “Endothelial Surface Charge of Intestinal Mucosal Capillaries and its Modulation by Dextran”, Ann L. Baldwin, Ning Z. Wu, and D.L. Stein, *J. Microvascular Research* **42**, 160 – 178 (1991).
56. “Biological Transport Processes and Space Dimension”, W. Nadler and D.L. Stein, *Proc. Natl. Acad. Sci. USA* **88**, 6750 – 6754 (1991).
57. “Broken Symmetry and Domain Structure”, C.M. Newman and D.L. Stein, *Mod. Phys. Lett. B* **5**, 621 – 623 (1991). (Invited)
58. “Multiple States and Thermodynamic Limits in Short-Ranged Ising Spin Glass Models”, C.M. Newman and D.L. Stein, *Phys. Rev. B* **46**, 973 – 982 (1992).
59. “Transition-Rate Theory for Nongradient Drift Fields”, R.S. Maier and D.L. Stein, *Phys. Rev. Lett.* **69**, 3691 – 3695 (1992).
60. “Chaotic Size Dependence in Spin Glasses”, C.M. Newman and D.L. Stein, in *Cellular Automata and Cooperative Systems*, eds. E. Goles and N. Boccara (Kluwer, Netherlands, 1993), pp. 525 – 529.
61. “Escape Problem for Irreversible Systems”, R.S. Maier and D.L. Stein, *Phys. Rev. E* **48**, 931 – 938 (1993).
62. “Exotic States in Long-Range Spin Glasses”, A. Gandolfi, C.M. Newman, and D.L. Stein, *Comm. Math. Phys.* **157**, 371 – 387 (1993).
63. “Effect of Focusing and Caustics on Exit Phenomena in Systems Lacking Detailed Balance”, R.S. Maier and D.L. Stein, *Phys. Rev. Lett.* **71**, 1783 – 1786 (1993).
64. “Spin Glass Model with Dimension-Dependent Ground State Multiplicity”, C.M. Newman and D.L. Stein, *Phys. Rev. Lett.* **72**, 2286 – 2289 (1994).
65. “Random Walk in a Strongly Inhomogeneous Environment and Invasion Percolation”, C.M. Newman and D.L. Stein, *Annales de L’Institut Henri Poincaré* **31**, 249 – 261 (1995).

66. “Random Walks on a Fluctuating Lattice: A Renormalization Group Approach Applied in One Dimension”, C.D. Levermore, W. Nadler and D.L. Stein, *Phys. Rev. E* **51**, 2779 – 2786 (1995).
67. “Broken Ergodicity and the Geometry of Rugged Landscapes”, D.L. Stein and C.M. Newman, *Phys. Rev. E* **51**, 5228 – 5238 (1995).
68. “Optimal Paths, Caustics, and Boundary Layer Approximations in Stochastically Perturbed Dynamical Systems”, R.S. Maier and D.L. Stein, in *Proceedings of the 1995 Design Engineering Technical Conferences: Vibration of Nonlinear, Random and Time-Varying Systems*, Fifteenth Biennial ASME Conference on Mechanical Vibration and Noise, Vol. 3, Part A (American Society of Mechanical Engineers, NY, 1995), pp. 903 – 910.
69. “The Weak-Noise Characteristic Boundary Exit Problem: Old and New Results”, R.S. Maier and D.L. Stein, in *Fluctuations and Order: The New Synthesis*, ed. M. Milonias (Springer-Verlag, NY, 1996), pp. 109 – 119.
70. “Non-Mean-Field Behavior of Realistic Spin Glasses”, C.M. Newman and D.L. Stein, *Phys. Rev. Lett.* **76**, 515 – 518 (1996).
71. “A Scaling Theory of Bifurcations in the Symmetric Weak-Noise Escape Problem”, R.S. Maier and D.L. Stein, *J. Stat. Phys.* **83**, 291 – 357 (1996).
72. “Reaction-Diffusion Description of Biological Transport Processes in Arbitrary Dimensions”, W. Nadler and D.L. Stein, *J. Chem. Phys.* **104**, 1918 – 1936 (1996).
73. “Ground State Structure in a Highly Disordered Spin Glass Model”, C.M. Newman and D.L. Stein, *J. Stat. Phys.* **82**, 1113 – 1132 (1996).
74. “Spatial Inhomogeneity and Thermodynamic Chaos”, C.M. Newman and D.L. Stein, *Phys. Rev. Lett.* **76**, 4821 – 4824 (1996).
75. “Random Walks on Random Partitions in One Dimension”, W. Nadler, T.-J. Huang, and D.L. Stein, *Phys. Rev. E* **54**, 4037 – 4047 (1996).
76. “Oscillatory Behavior of the Rate of Escape through an Unstable Limit Cycle”, R.S. Maier and D.L. Stein, *Phys. Rev. Lett.* **77**, 4860 – 4863 (1996).
77. “Limiting Exit Location Distributions in the Stochastic Exit Problem”, R.S. Maier and D.L. Stein, *SIAM J. Appl. Math.* **57**, 752 – 790 (1997).
78. “Thermodynamic Chaos and the Structure of Short-Range Spin Glasses”, C.M. Newman and D.L. Stein, in *Mathematical Aspects of Spin Glasses and Neural Networks*,

eds. A. Bovier and P. Picco (Birkhäuser, Boston, 1997), pp. 243 – 287.

79. “Metastate Approach to Thermodynamic Chaos”, C.M. Newman and D.L. Stein, *Phys. Rev. E* **55**, 5194 – 5211 (1997).
80. “Experiments on Critical Phenomena in a Noisy Exit Problem”, D.G. Luchinsky, R.S. Maier, R. Mannella, P.V.E. McClintock, and D.L. Stein, *Phys. Rev. Lett.* **79**, 3109 – 3112 (1997).
81. “Simplicity of State and Overlap Structure in Finite-Volume Realistic Spin Glasses”, C.M. Newman and D.L. Stein, *Phys. Rev. E* **57**, 1356 – 1366 (1998).
82. “Observation of saddle point avoidance in noise-induced escape”, D.G. Luchinsky, R.S. Maier, R. Mannella, P.V.E. McClintock, and D.L. Stein, *Phys. Rev. Lett.* **82**, 1806 – 1809 (1999).
83. “Short-Range Spin Glasses: A Status Report”, C.M. Newman and D.L. Stein, in *XI-Ith International Congress of Mathematical Physics ICMP 1997*, eds. D. De Wit, A.J. Bracken, M.D. Gould and P.A. Pearce (International Press, Boston, 1999), pp. 167 – 172.
84. “Equilibrium Pure States and Nonequilibrium Chaos”, C.M. Newman and D.L. Stein, *J. Stat. Phys.* **94**, 709 – 722 (1999).
85. “Blocking and Persistence in the Zero-Temperature Dynamics of Homogeneous and Disordered Ising Models”, C.M. Newman and D.L. Stein, *Phys. Rev. Lett.* **82**, 3944 – 3947 (1999).
86. “Metastable States in Spin Glasses and Disordered Ferromagnets”, C.M. Newman and D.L. Stein, *Phys. Rev. E* **60**, 5244 – 5260 (1999).
87. “Experimental Evidence for Skewing and Saddle-Point Avoidance in a Noisy Exit Problem”, G.P. Golubev, D.G. Luchinsky, R.S. Maier, R. Mannella, P.V.E. McClintock, and D.L. Stein, in *Proceedings of Stochastic Dynamics Conference, Minsk, 1998*.
88. “Dynamics of Ising Spin Systems at Zero Temperature”, S. Nanda, C.M. Newman and D.L. Stein, in *On Dobrushin’s Way (from Probability Theory to Statistical Physics)*, R. Minlos, S. Shlosman and Y. Suhov, eds., Amer. Math. Soc. Transl. (2) 198 (2000), pp. 183-194 .
89. “The Birth of a Cusp: The Unfolding of a ‘Boundary Catastrophe’”, R.S. Maier and D.L. Stein, in *Stochaos: Stochastic and Chaotic Dynamics in the Lakes*, D.S. Broomhead, E.A. Luchinskaya, P.V.E. McClintock and T. Mullin, eds. (American Institute of Physics, Melville, NY, 2000), pp. 26 – 33.

90. “Nature of Ground State Incongruence in Two-Dimensional Spin Glasses”, C.M. Newman and D.L. Stein, *Phys. Rev. Lett.* **84**, 3966 – 3969 (2000).
91. “Zero-Temperature Dynamics of Ising Spin Systems Following a Deep Quench: Results and Open Problems”, C.M. Newman and D.L. Stein, *Physica A* **279**, 159 – 168 (2000). (Invited)
92. “How an Anomalous Cusp Bifurcates in a Weak-Noise System”, R.S. Maier and D.L. Stein, *Phys. Rev. Lett.* **85**, 1358 – 1361 (2000).
93. “Zero Temperature Dynamics of $\pm J$ Spin Glasses and Related Ising Models”, A. Gandolfi, C.M. Newman and D.L. Stein, *Comm. Math. Phys.* **214**, 373 – 387 (2000).
94. “Realistic Spin Glasses Below Eight Dimensions: A Highly Disordered View”, C.M. Newman and D.L. Stein, *Phys. Rev. E* **63**, 16101-1 – 16101-9 (2001).
95. “Noise-Activated Escape from a Sloshing Potential Well”, R.S. Maier and D.L. Stein, *Phys. Rev. Lett.* **86**, 3942 – 3945 (2001).
96. “Are There Incongruent Ground States in 2D Edwards-Anderson Spin Glasses?”, C.M. Newman and D.L. Stein, *Comm. Math. Phys.* **224**, 205 – 218 (2001). (Invited)
97. “Interfaces and the Question of Regional Congruence in Spin Glasses”, C.M. Newman and D.L. Stein, *Phys. Rev. Lett.* **87**, 077201-1 – 077201-4 (2001).
98. “Aging in 1D Discrete Spin Models and Equivalent Systems”, L.R. Fontes, M. Isopi, C.M. Newman, and D.L. Stein, *Phys. Rev. Lett.* **87**, 110201-1 – 110201-4 (2001).
99. “Droplet Nucleation and Domain Wall Motion in a Bounded Interval”, R.S. Maier and D.L. Stein, *Phys. Rev. Lett.* **87**, 270601-1 – 270601-4 (2001).
100. “The State(s) of Replica Symmetry Breaking: Mean Field Theories vs. Short-Ranged Spin Glasses”, C.M. Newman and D.L. Stein, *J. Stat. Phys.* **106**, 213 – 244 (2002).
101. “Finite-Dimensional Spin Glasses: States, Excitations, and Interfaces”, C.M. Newman and D.L. Stein, *Annales Henri Poincaré* **4**, Suppl. 1, S497 – S503 (2003).
102. “Topical Review: Ordering and Broken Symmetry in Short-Ranged Spin Glasses”, C.M. Newman and D.L. Stein (invited), *Journal of Physics: Condensed Matter* **15**, R1319 – R1364 (2003).
103. “Effects of Weak Spatiotemporal Noise on a Bistable One-Dimensional System”, R.S. Maier and D.L. Stein (invited), in *Noise in Complex Systems and Stochastic Dynamics*,

- eds. L. Schimansky-Geier, D. Abbott, A. Neiman, and C. Van den Broeck, SPIE Proceedings Series, v. 5114 (SPIE — The Society for Optical Engineering, Bellingham, WA, 2003), pp. 67–78.
104. “Nonrealistic Behavior of Mean Field Spin Glasses”, C.M. Newman and D.L. Stein, *Phys. Rev. Lett.* **91**, 197205 (2003).
 105. “Spin Glasses: Still Complex After All These Years?”, D.L. Stein, in *Decoherence and Entropy in Complex Systems*, ed. H.-T. Elze (Springer, Berlin, 2004).
 106. “Critical Behavior of the Kramers Escape Rate in Asymmetric Classical Field Theories”, D.L. Stein, *J. Stat. Phys.* **114**, 1537 – 1556 (2004).
 107. “Fluctuational Instabilities of Alkali and Noble Metal Nanowires”, J. Bürki, C. Stafford, and D.L. Stein, in *Noise in Complex Systems and Stochastic Dynamics II*, eds. Z. Gingl, J.M. Sancho, L. Schimansky-Geier, and J. Kertesz, SPIE Proceedings Series, v. 5471 (SPIE — The Society for Optical Engineering, Bellingham, WA, 2004), pp. 367–379.
 108. “Zero Temperature Dynamics of 2D and 3D Ising Ferromagnets”, P. Sundaramurthy and D.L. Stein, *J. Phys. A: Math. Gen.* **38**, 349 – 362 (2005).
 109. “Large Fluctuations, Classical Activation, Quantum Tunneling, and Phase Transitions”, D.L. Stein, *Brazil. J. Phys.* **35**, 242 – 252 (2005) (invited).
 110. “Thermally Induced Magnetic Switching in Thin Ferromagnetic Annuli”, Kirsten Martens, D.L. Stein, and A.D. Kent, in *Noise in Complex Systems and Stochastic Dynamics III*, eds. L.B. Kish, K. Lindenberg, and Z. Gingl, SPIE Proceedings Series, v. 5845 (SPIE — The Society for Optical Engineering, Bellingham, WA, 2005), pp. 1–11.
 111. “Theory of Metastability in Simple Metal Nanowires”, J. Bürki, C.A. Stafford, and D.L. Stein, *Phys. Rev. Lett.* **95**, 090601-1–090601-4 (2005).
 112. “Local vs. Global Variables for Spin Glasses”, C.M. Newman and D.L. Stein, in *Spin Glass Theory*, eds. E. Bolthausen and A. Bovier (Springer, Berlin, 2006), pp. 145–158.
 113. “Short-Range Spin Glasses: Results and Speculations”, C.M. Newman and D.L. Stein, in *Spin Glass Theory*, eds. E. Bolthausen and A. Bovier (Springer, Berlin, 2006), pp. 159–175.
 114. “Magnetic Reversal in Nanoscopic Ferromagnetic Rings”, Kirsten Martens, D.L. Stein, and A.D. Kent, *Phys. Rev. B* **73**, 054413-1 – 054413-10 (2006).
 115. “Comment on ‘Nonlinear current-voltage curves of gold quantum point contacts’”, J. Bürki, C.A. Stafford, and D.L. Stein, *Appl. Phys. Lett.* **88**, 166101 (2006).

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3. “Spin Glasses and Biology”, edited by D.L. Stein (World Scientific Publishing Co., Singapore, 1992)
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5. “Methods of Statistical Physics”, by Tomoyasu Tanaka, *SIAM Review* **45**, 620 (2003).

Conference Organization

1. “Workshop on Disordered Systems”, Aspen Center for Physics, Summer 1985. Co-organizer with D.S. Fisher and R.G. Palmer.
2. “Program on *Relaxation and Reaction Kinetics in Complex Systems*”, Institute for Theoretical Physics, Santa Barbara, January 1 – June 30, 1987. Co-organizer with R.G. Palmer and P.G. Wolynes.
3. “Conference on *Relaxation and Reaction Kinetics in Complex Systems*”, Institute for Theoretical Physics, Santa Barbara, June 15 – 19, 1987. Co-organizer with R.G. Palmer and P.G. Wolynes.
4. “Summer School on Complex Systems”, Director, Santa Fe, NM, June 13 – July 8, 1988.
5. “Summer School on Complex Systems”, Santa Fe, NM, June 5 – June 30, 1989, Associate director; E. Jen, director.
6. “Workshop on Glasses, Biomolecules, and Evolution”, Member of Organizing Committee, Santa Fe, NM, May 1990.
7. “Summer School on Complex Systems”, Santa Fe, NM, June 4 – June 29, 1990, Co-director with Lynn Nadel, (Head of Cognitive Science, University of Arizona).
8. “Summer School on Complex Systems”, Santa Fe, NM, June 3 – June 28, 1991, Co-director with Lynn Nadel, (Head of Cognitive Science, University of Arizona).
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14. “Summer School on Complex Systems”, Santa Fe, NM, June 2 – June 27, 1997, Co-director with Lynn Nadel, (Head of Cognitive Science, University of Arizona).
15. “Fluctuations, Escape, and Optimal Control”, Traverse City, MI, August 17 – 21, 1997, member of Organizing Committee.
16. “Summer School on Complex Systems”, Santa Fe, NM, June 1 – June 26, 1998, Co-director with Lynn Nadel, (Head of Cognitive Science, University of Arizona).
17. “International Conference on Stochastic and Chaotic Dynamics”, Ambleside, England, August 16 – 20, 1999, member of International Technical Committee.
18. “First International Workshop DICE 2002: Decoherence, Information, Complexity, and Entropy”, Piombino, Italy, September, 2002, member of International Advisory Board.
19. “Second International Workshop DICE 2004: Decoherence, Information, Complexity, and Entropy”, Piombino, Italy, September, 2004, member of International Advisory Board.
20. “Workshop on Current Topics in Micromagnetics”, Courant Institute, NYU, New York, June 1 – 3, 2005; member of Organizing Committee.
21. “Stochastic Processes in Mathematical Physics”, Florence, Italy, June 19 – 23, 2006; member of Organizing Committee.
22. “Summer School on Spin Glasses”, Institut de Mathématique de Jussieu and Institut Henri Poincaré, June 25 – July 6, 2007; member of Scientific Committee.
23. “Disordered Systems: Spin Glasses”, a workshop as part of the CRM 2008-2009 Thematic Program: *Probabilistic Methods in Mathematical Physics*, co-organizer with Gerard ben Arous, Erwin Bolthausen, and Marc Mézard, June 8 – 13, 2009, Montreal, Canada.

24. “2013 Interdisciplinary Symposium on Complex Systems”, Prague, Czech Republic, September 10 – 13, 2013; member of Program Committee.
25. “2014 Interdisciplinary Symposium on Complex Systems”, Florence, Italy, September 15 – 18, 2014; member of Program Committee.
26. “2015 Interdisciplinary Symposium on Complex Systems”, Grenoble, France, September 14 – 17, 2015; member of Program Committee.
27. “International Conference on the Frontiers in Atomic, Molecular, and Optical Physics”, Shanghai, China, May 23 – 26, 2016; member of Conference Scientific Committee.
28. “Motion of Interfaces”, Shanghai, China, March 31 – April 2, 2017; member of Organizing Committee.
29. “International Conference on Emergent Phenomena in Quantum Materials”, Shanghai, China, May 30 – June 1, 2018; member of Organizing Committee.
30. “Mathematical Physics of Non-Periodic Structures”, Bedlewo, Poland, July 9 – July 13, 2018; member of Organizing Committee.
31. “Changes of State: A Symposium in Honor of Thomas F. Rosenbaum”, University of Chicago, April 1–3, 2022; co-organizer.
32. “Spin Dynamics at the Nanoscale and its Applications: A Symposium in Honor of Andy Kent”, New York University, September 23–24, 2022; co-organizer.