

List of Publications

Kazuo Hida

I. Original Papers

1. K. Hida and Y. Ono: Theory of the $\cos \phi$ term in the Josephson tunneling current: J. Low Temp. Phys. **29**, 355-367 (1977).
2. K. Hida: Phase transitions in nonequilibrium superconductors induced by quasiparticle injection: J. Low Temp. Phys. **32**, 881-893 (1978).
3. K. Hida: The two-gap state induced by the singular I-V characteristics of Josephson tunnel junctions : Phys. Lett. **68A**, 71-73 (1978).
4. K. Hida: The phase separation and the diffusive instabilities accompanied by the nematic-isotropic transition of the liquid crystalline mixtures : Prog. Theor. Phys. **62**, 915-926 (1979).
5. K. Hida: The phase separation and the diffusive instabilities accompanied by the nematic-isotropic transition of the liquid crystalline mixturesII : Prog. Theor. Phys. **64**, 1082-1085 (1980).
6. K. Hida: Rigorous derivation of the distribution of the eigenstates of the quantum Heisenberg-Ising chain with XY-like anisotropy : Phys. Lett. **84A**, 338-340 (1981).
7. K. Hida: A lattice model theory of the reentrant nematic-smectic A transition : J. Phys. Soc. Jpn. **50**, 3869-3875 (1981).
8. M. Imada, K. Hida and M. Ishikawa: Thermodynamics of the massive Thirring model and the quantum sine-Gordon system: Phys. Lett. **90A**, 79-82 (1982).
9. M. Imada, K. Hida and M. Ishikawa: The finite temperature properties of the massive Thirring model and the quantum sine-Gordon model: J. Phys. **C16**, 35-48 (1983).
10. K. Hida, M. Imada and M. Ishikawa: Thermodynamics of the quantum sine-Gordon model with finite winding number: Phys. Lett. **93A**, 341-343 (1983).
11. K. Hida, M. Imada and M. Ishikawa: Commensurate-incommensurate crossover in quantum sine-Gordon model: J. Phys. **C16**, 4945- 4958 (1983).
12. K. Hida, T. Miyazaki and M. Kitamura: Soliton dynamics in the discrete classical Heisenberg chain - Velocity modulation and stochastic depinning - : Phys. Lett. **98A**, 119-121 (1983).
13. M. Ishikawa, K. Hida and M. Imada: Isothermal excitations of the massive Thirring and the quantum sine-Gordon model: Prog. Theor. Phys. **72**, 710-721 (1984).
14. M. Ishikawa and K. Hida: Thermodynamics of the lattice quantum sine-Gordon model

- and the lattice massive Thirring model: J. Phys. **C17**, 5103-5120 (1984).
15. K. Hida and U. Eckern: Quantum dynamics of the sine-Gordon model in the presence of dissipation : Phys. Rev. **B30**, 4096-4098 (1984).
 16. K. Hida: Quantum thermal crossover in the dissipative dynamics of the sine-Gordon model: Z. Phys. **B61**, 223-229 (1985).
 17. K. Hida: Finite temperature properties of the damped one dimensional quantum sine-Gordon model: Phys. Rev. **B32**, 4539-4545 (1985).
 18. K. Hida: Quantum Brownian motion of solitons in the sine-Gordon model : J. Phys. Soc. Jpn. **55**, 3321-3325 (1986).
 19. K. Hida: Quantum effect on the chaos in Josephson junction : J. Phys. Soc. Jpn. **55**, 3694-3697 (1986).
 20. K. Hida: Finite temperature correction to the mobility of the strongly damped sine-Gordon soliton - effect of the frequency cut-off - : J. Phys. Soc. Jpn. **55**, 3698-3700 (1986).
 21. S. Nakaya and K. Hida: Quantum tunnelling of nonlinear Klein-Gordon system with dissipation in high external field: J. Phys. Soc. Jpn. **55**, 3768-3777 (1986).
 22. K. Hida: Effect of quantum fluctuation on the onset of chaos in Josephson junctions : J. Phys. Soc. Jpn. **56**, 2325-2331 (1987).
 23. K. Hida: Dissipation and quantum-classical correspondence in nonlinear nonintegrable system : J. Phys. Soc. Jpn. **57**, 75-79 (1988)
 24. K. Hida: A spin wave theory of the high T_c oxide superconductor : J. Phys. Soc. Jpn. **57**, 1544-1547 (1988).
 25. S. Nagasawa and K. Hida: Quantum Monte Carlo study of the quasi-one-dimensional many bipolaron system: J. Phys Soc. Jpn. **57**, 3506-3513 (1988).
 26. K. Hida: Theory of the spin wave mediated high T_c superconductivity : J. Phys. Soc. Jpn. **58**, 1387-1393 (1989).
 27. K. Hida: Slave fermion theory of the coupled spin-hole model of the high T_c superconductors : J. Phys. Soc. Jpn. **58**, 2260-2263 (1989).
 28. K. Hida: Bosonization theory of the one dimensional coupled spin- fermion model : J. Phys. Soc. Jpn. **59**, 667-676 (1990).
 29. T. Matsuda and K. Hida: Ground state properties of the double layer quantum Heisenberg antiferromagnet- Spin wave approximation - : J. Phys. Soc. Jpn. **59**, 2223-2229 (1990).

30. K. Hida: Low temperature properties of the double layer quantum Heisenberg antiferromagnet- Modified spin wave approximation - : J. Phys. Soc. Jpn. **59**, 2230-2236 (1990).
31. K. Hida: Haldane gap in the spin-1/2 double chain Heisenberg antiferromagnet - Numerical Diagonalization and projector Monte Carlo study : J. Phys. Soc. Jpn. **60**, 1347-1354 (1991).
32. K. Hida: Haldane gap in the spin-1/2 double chain anisotropic Heisenberg antiferromagnet : J. Phys. Soc. Jpn. **60**, 1939-1942 (1991).
33. K. Hida: Crossover between the Haldane gap phase and the dimer phase in the spin 1/2 alternating Heisenberg chain : Phys. Rev. **B45** 2207-2212 (1992)
34. K. Hida: Quantum disordered state without frustration in the double layer Heisenberg antiferromagnet - Dimer expansion and projector Monte Carlo study - : J. Phys. Soc. Jpn. **61** 1013-1018 (1992) .
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36. K. Hida: Ground state phase diagram of the spin 1/2 ferromagnetic-antiferromagnetic alternating Heisenberg chain with anisotropy : Phys. Rev. **B46** 8268-8275 (1992).
37. K. Hida: Generalized string order in the spin 1/2 alternating Heisenberg chain : J. Phys. Soc. Jpn. **62** 439-442 (1993).
38. K. Hida: Ground state phase diagram of the spin 1/2 alternating Heisenberg chain with anisotropy on the antiferromagnetic bond : J. Phys. Soc. Jpn. **62** 1463-1465 (1993).
39. K. Hida: Critical exponents of the ground state phase transitions of the spin 1/2 ferromagnetic-antiferromagnetic alternating Heisenberg chain with anisotropy : J. Phys. Soc. Jpn. **62** 1466-1469 (1993).
40. K. Hida: XY phase in the ground state of the spin-1/2 alternating Heisenberg chain : J. Phys. Soc. Jpn. **62** 3357-3360 (1993).
41. K. Hida: Magnetic properties of the spin-1/2 ferromagnetic-ferromagnetic-antiferromagnetic trimerized Heisenberg chain : J. Phys. Soc. Jpn. **63** 2359-2364 (1994).
42. K. Hida: Excitation spectrum of the spin 1/2 ferromagnetic-antiferromagnetic alternating Heisenberg chain : J. Phys. Soc. Jpn. **63** 2514-2517 (1994).

43. K. Hida: Density matrix renormalization group study of the spin 1/2 Heisenberg ladder with antiferromagnetic legs and ferromagnetic rungs : J. Phys. Soc. Jpn. **64** 4896-4900 (1995).
44. K. Hida: Modified spin wave theory of the bilayer square lattice frustrated quantum Heisenberg antiferromagnet: J. Phys. Soc. Jpn. **65** 594-600 (1996).
45. K. Hida: Density matrix renormalization group method for random quantum one-dimensional systems - Application to the random spin-1/2 antiferromagnetic Heisenberg chain - : J. Phys. Soc. Jpn. **65** 895-898 (1996); errata ibid. 3412.
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47. K. Hida: Density matrix renormalization group study of random dimerized antiferromagnetic Heisenberg chains : J. Phys.Soc. Jpn. **66** 3237-3241 (1997).
48. K. Hida: Interacting boson theory of the magnetization process of the spin-1/2 ferromagnetic-antiferromagnetic alternating Heisenberg chain: J. Phys. Soc. Jpn. **67** 1416-1421 (1998).
49. K. Hida: Dimer expansion study of the bilayer square lattice frustrated quantum Heisenberg antiferromagnet: J. Phys. Soc. Jpn. **67** 1540-1543 (1998).
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52. W. Chen and K. Hida: Ground state phase diagram of the one dimensional $S=1/2$ XXZ model with dimerization and quadrumerization: J. Phys. Soc. Jpn. **68** 2779-2782 (1999) .
53. K. Hida: Density matrix renormalization group study of the Haldane phase in random one-dimensional antiferromagnets: Phys. Rev. Lett. **83** 3297-3300 (1999) .
54. K. Hida: Density matrix renormalization group study of the $S = 1/2$ antiferromagnetic Heisenberg chains with quasiperiodic exchange modulation: J. Phys. Soc. Jpn. **68** 3177-3180 (1999).
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 61. K. Hida: Ground State Phase Transition in the $S = 1$ Distorted Kagome Heisenberg Antiferromagnets, J. Phys. Soc. Jpn. **71** 1027-1030 (2002).
 62. K. Hida: Ground State Phase Diagram of the Distorted $S=1$ Kagomé Heisenberg Antiferromagnets with Single-site Anisotropy: J. Phys. Soc. Jpn. **71** 3021-3023 (2002),
 63. K. Hida: Random Magnetism in $S=1/2$ Heisenberg Chains with Bond Alternation and Randomness on the Strong Bonds, J. Phys. Soc. Jpn, **72**, 688-693 (2003) 2002
 64. K. Hida : Magnetization Plateaux in Random Frustrated $S=1/2$ Heisenberg Chains, J. Phys. Soc. Jpn, **72**, 911 (2003)
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 70. K. Hida and I. Affleck: Quantum vs. Classical Magnetization Plateaus of $S=1/2$

Frustrated Heisenberg Chains : J. Phys. Soc. Jpn. 74, 1849-1857 (2005).

71. K. Hida and W. Chen: Emergence of Long Period Antiferromagnetic Orders from Haldane Phase in $S=1$ Heisenberg Chains with D-Modulation: to be published in J. Phys. Soc. Jpn. 74, No. 7 cond-mat/0504125

II. Proceedings

1. K. Hida: GL theory of the upper critical fields of coupled fibrous superconductors : Proceedings of the 16th International Conference on Low Temperature Physics, Los Angeles, USA, Physica **107B**, 127-128 (1981).
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3. M. Imada, K. Hida and M. Ishikawa: Statistical mechanics of one dimensional XYZ spin chain, massive Thirring model and quantum sine-Gordon model: Proceedings of the 17th International Conference on Magnetism, Kyoto, Japan, J. Mag. Mag. Mat. **31-34**, 1221-1222 (1983).
4. M. Ishikawa and K. Hida: Finite temperature properties of the lattice sine-Gordon model: Proceedings of the 17th International Conference on Low Temperature Physics, Karlsruhe, West Germany, 1355-1356 (1984).
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9. K. Hida: Density matrix renormalization group study of the spin-1/2 Heisenberg ladder: Proceedings of the Hayashibara Forum '95: International Symposium on Coherent Approaches to Fluctuations, Kyoto, Japan 253-256 (1995).
10. W. Chen, K. Hida and H. Nakano: Magnetization plateaus in one dimensional $S = 1/2$ Heisenberg model with dimerization and quadrumerization: Proceedings of the 4-th International Symposium on Advanced Physical Fields, Quantum Phenomena in Advanced Matrics at High Magnetic Fields, Tsukuba, Japan 227-230 (1999).
11. K. Hida: Density Matrix Renormalization Group Study of the $S = 1/2$ Anisotropic Antiferromagnetic Heisenberg Chains with Quasiperiodic Exchange Modulation, in "Frontiers in Magnetism - Nanoscale, Glassy and Quantum Magnetisim" Supplement A to J. Phys. Soc. Jpn. **69**, 311-318 (2000).
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15. K. Hida: DMRG Study of the $S=1/2$ Heisenberg Chains with Bond Alternation and Randomness on the Strong Bonds: Proceedings of ISSP-Kashiwa 2001 Correlated Electrons, Kashiwa, Japan, 2001, J. Phys. and Chem. Solids 63 (2002) 1443-1445.
16. K. Hida: Magnetic Properties of $S=1/2$ Heisenberg Chains with Bond Alternation and Randomness on the Strong Bonds: Proceedings of the Yukawa-Institute-for-Theoretical-Physics International Workshop, "Order, Disorder, and Dynamics in Quantum Spin Systems", Kyoto, Japan 2001, Prog. Theor. Phys. Suppl. 145 (2002) 320.
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20-27 August 2002, Physica B 329-333 (2003) 992-993.

18. K. Hida: Renormalization Group Studies of the Fibonacci Quantum Spin Chains: Proceedings of International Conference on Statistical Physics of Quantum Systems – novel orders and dynamics – July 17–20, 2004, Sendai, Japan, to be published in J. Phys. Soc. Jpn. Suppl.
19. K. Hida and I. Affleck : Magnetization Plateau of the $S=1/2$ Frustrated Heisenberg Chain with Period 3 Parity Invariant Exchange Modulation, Proceedings of International Symposium on Quantum Spin Systems, Nov. 30 – Dec. 3, 2004, Hayama, Japan, to be published in Prog. Theor. Phys. Suppl.