

Classical and quantum phase transitions

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- 1) What is a quantum phase transition
- 2) Nonzero temperature transitions and crossovers
- 3) Experimental examples
- 4) Theoretical models
- 5) Mean field and Landau theory
- 6) Fluctuations and perturbation theory
- 7) Gaussian theory
- 8) Momentum shell renormalisation group
- 9) The quantum Ising model
- 10) The quantum rotor model
- 11) Correlation functions
- 12) Broken symmetries