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Collana	Lecture Notes in Physics, , 0075-8450 ; ; 216
Disciplina	536.7
Soggetti	Thermodynamics Statistical physics Dynamical systems Quantum computers Spintronics Quantum physics Complex Systems Quantum Information Technology, Spintronics Quantum Physics Statistical Physics and Dynamical Systems
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Nota di contenuto	Prologue A functional perturbative approach to the classical statistical mechanics -- The structure and statistical mechanics of glass -- The statistical mechanics of surfaces -- Surface effects in phase transitions -- On the Ising spin glass I. Mean field -- On the Ising spin glass II. Fluctuations -- The wetting transition -- Grassmann variables and supersymmetry in the theory of disordered systems -- Rigorous studies of critical behavior -- Anderson transition and nonlinear ?-model -- Non-perturbative renormalisation in field theory -- Stochastic quantization: Regularization and renormalization -- Self avoiding random walk and the renormalisation group -- Field theory of the metal-insulator transitions in restricted symmetries -- Surface tension

and supercooling in solidification theory -- Order and frustration on a random topography -- On the equation  $?? = ?2\sinh ?$  and its applications -- The uses of Zeta-function regularization in the dielectric gauge theory of quark confinement -- One dimensional Heisenberg Ferromagnet equation and the Painleve test -- Nonlinear crystal growth near the roughening-transition -- The dynamics of bose-einstein condensation -- Decay properties of correlations in massless models : The method of correlation inequalities -- Nonasymptotic critical phenomena -- Large n expansions for paramagnetic to helical phase transitions -- The maximal chain model— a one dimensional system with a first-order phase transition -- Directed lattice animals and the Yang-Lee-Edge singularity -- Real space renormalization group treatment of superradiance -- Kondo effect in a one dimensional interacting electron system -- Time-dependent nucleation in systems with conserved order parameter -- Mastersymmetries for completely integrable systems in statistical mechanics -- Scaling approach to self-avoiding random walks and surfaces -- Long-time dynamics of coupled non-linear oscillators -- Nonlinear quantum fluctuation-dissipation relations -- Effects of surface exchange anisotropies on critical and multicritical behavior at surfaces -- Dirichlet forms and schrodinger operators.

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