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Nota di contenuto	An introduction to the Hubbard model -- A quantum critical trio: Solvable models of finite temperature crossovers near quantum phase transitions -- Notes on the density matrix renormalization group; Applications to ladder systems -- An introduction to quantum monte carlo methods -- Coupled Luttinger liquids -- On the application of the Non-linear sigma model to spin chains and spin ladders -- Density matrix and renormalization for classical lattice models -- Real-space renormalization group methods applied to quantum lattice hamiltonians -- A critical view of the real-space renormalization group method applied to the hubbard model -- Quantum dissipative systems

	-- Impurity effects in quantum wires -- Skyrmions in the quantum hall effect -- Photoemission bands in systems of strongly correlated electrons -- Van hove scenario of high-T c superconductivity.
Sommario/riassunto	This volume, intended as a contribution to the 10th birthday of high Tc-superconductivity, conveys the essential ideas of the field and addresses researchers as well as graduate students. A special feature is the pedagogical treatment of a variety of modern computational methods to deal with non-pertubative effects in strongly correlated systems. Among the topics treated are the Hubbard models, real space renormalization group methods, quantum phase transitions, the non-linear sigma model, spin ladders and layers, and the quantum Hall effect.