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Nota di contenuto	State vector reduction in relativistic quantum mechanics: An introduction -- Quantum measurements, open systems and dynamical entropy -- EEQT — A way out of the quantum trap -- Stochastic unraveling of relativistic quantum measurements -- Some lessons from relativistic reduction models -- Effective theories of coupled classical and quantum variables -- Are there unsolved problems in the interpretation of quantum mechanics? -- Collapse models.
Sommario/riassunto	This book treats modern aspects of open systems, measurement, and decoherence in relativistic quantum theory. It starts with a comprehensive introduction to the problems related to measuring local and nonlocal observables and the constraints imposed by the causality principle. In the articles that follow, the emphasis lies on new theoretical models. Quantum dynamical semigroups and stochastic processes in Hilbert space are introduced, as are dynamical reduction models. Further topics include relativistic generalizations of the continuous spontaneous localization model and of the quantum state

diffusion model and decoherence and the dynamical selection of preferred basis sets in the framework of continuous measurement theory and of the decoherent histories approach. Mathematical aspects of quantum measurement theory and dynamical entropies are also studied from the viewpoint of the operational approach to quantum mechanics.