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Autore	Auletta Gennaro
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Nota di contenuto	Introduction -- Summary of the Basic Elements of the Theory -- The Main Problems -- The Main Interpretations -- Quantum Computation -- Ontological Ascription and Operations -- Information, Signals, Networks -- Quantum Mechanics, Fields, and Geometry -- Category Theory and Quantum Mechanics.
Sommario/riassunto	This comprehensive volume gives a balanced and systematic treatment of both the interpretation and the mathematical-conceptual foundations of quantum mechanics. It is written in a pedagogical style and addresses many thorny problems of fundamental physics. The first aspect concerns Interpretation. The author raises the central problems: formalism, measurement, non-locality, and causality. The main positions on these subjects are presented and critically analysed. The aim is to show that the main schools can converge on a core interpretation. The second aspect concerns Foundations. Here it is

shown that the whole theory can be grounded on information theory. The distinction between information and signal leads us to integrating quantum mechanics and relativity. Category theory is presented and its significance for quantum information shown; the logic and epistemological bases of the theory are assessed. Of relevance to all physicists and philosophers with an interest in quantum theory and its foundations, this book is destined to become a classic work.