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	Nota di contenuto	1 The Postulates of Quantum Mechanics -- 2 Virtual Realization of Quantum Computers -- 3 Quantum Computation: Overview -- 4 Quantum Algorithms: Introduction -- 5 Quantum Information: Introduction -- 6 Quantum Error Correction Codes: Introduction -- Appendix A Linear Algebra -- Appendix B Mathematica Application Q3 -- References. .
	Sommario/riassunto	Teaching quantum computation and information is notoriously difficult, because it requires covering subjects from various fields of science, organizing these subjects consistently in a unified way despite their tendency to favor their specific languages, and overcoming the subjects' abstract and theoretical natures, which offer few examples of actual realizations. In this book, we have organized all the subjects required to understand the principles of quantum computation and information processing in a manner suited to physics, mathematics, and engineering courses as early as undergraduate studies.In addition,

we provide a supporting package of quantum simulation software from Wolfram Mathematica, specialists in symbolic calculation software. Throughout the book's main text, demonstrations are provided that use the software package, allowing the students to deepen their understanding of each subject through self-practice. Readers can change the code so as to experiment with their own ideas and contemplate possible applications. The information in this book reflects many years of experience teaching quantum computation and information. The quantum simulation-based demonstrations and the unified organization of the subjects are both time-tested and have received very positive responses from the students who have experienced them.