

1. Record Nr.	UNISA996418177103316
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Titolo	Quantum Error Correction [[electronic resource]] : Symmetric, Asymmetric, Synchronizable, and Convolutional Codes / / by Giuliano Gadioli La Guardia
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2020
ISBN	3-030-48551-X
Edizione	[1st ed. 2020.]
Descrizione fisica	1 online resource (234 pages)
Collana	Quantum Science and Technology, , 2364-9054
Disciplina	006.3843
Soggetti	Quantum computers Spintronics Coding theory Information theory Electrical engineering Quantum Information Technology, Spintronics Quantum Computing Coding and Information Theory Communications Engineering, Networks
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	1 Introduction to Quantum Mechanics -- 2 Introduction to Quantum Computation and Information -- 3 Quantum Error-Correcting Codes -- 4 Quantum Code Construction -- 5 Asymmetric Quantum Code Construction -- 6 Quantum Convolutional Code Construction -- Index.
Sommario/riassunto	This text presents an algebraic approach to the construction of several important families of quantum codes derived from classical codes by applying the well-known Calderbank-Shor-Steane (CSS) construction, the Hermitian, and the Steane's enlargement construction to certain classes of classical codes. These quantum codes have good parameters and have been introduced recently in the literature. In addition, the book presents families of asymmetric quantum codes with good parameters and provides a detailed description of the procedures adopted to construct families of asymmetric quantum convolutional

codes. Featuring accessible language and clear explanations, the book is suitable for use in advanced undergraduate and graduate courses as well as for self-guided study and reference. It provides an expert introduction to algebraic techniques of code construction and, because all of the constructions are performed algebraically, it equips the reader to construct families of codes, rather than only codes with specific parameters. The text offers an abundance of worked examples, exercises, and open-ended problems to motivate the reader to further investigate this rich area of inquiry. End-of-chapter summaries and a glossary of key terms allow for easy review and reference.
