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Nota di contenuto	1. Error control in digital communications and storage -- 2. Brief introduction to abstract algebra -- 3. Binary block codes -- 4. Reed-Solomon codes -- 5. Convolutional codes -- 6. Modern codes.
Sommario/riassunto	This practical resource provides you with a comprehensive understanding of error control coding, an essential and widely applied area in modern digital communications. The goal of error control coding is to encode information in such a way that even if the channel (or storage medium) introduces errors, the receiver can correct the errors and recover the original transmitted information. This book includes the most useful modern and classic codes, including block, Reed Solomon, convolutional, turbo, and LDPC codes. You find clear guidance on code construction, decoding algorithms, and error correcting performances. Moreover, this unique book introduces computer simulations integrally to help you master key concepts. Including a companion DVD with MATLAB programs and supported with over 540 equations, this hands-on reference provides you with an in-depth treatment of a wide range of practical implementation issues. DVD Included! Contains carefully designed MATLAB programs that you can apply to your projects in the field.