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Convolutional Codes and Their Trellis; 4.5 Minimal Trellises; 4.6 Minimum-Span Generator Matrices; 4.7 Systematic Construction of the PC-Trellis; 4.8 Tail-Biting Trellises
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 5.8 Log-APP and Approximations 5.9 Error Analysis and Distance Spectrum; 5.10 Random Coding Analysis of Optimal Decoding; 5.11 Random Coding Analysis of Sequential Decoding; 5.12 Some Final Remarks; 6 Low-Density Parity-Check Codes; 6.1 Introduction; 6.2 LDPC Codes and Graphs; 6.3 LDPC Decoding via Message Passing; 6.4 Analysis Techniques; 6.4.1 (Error) Probability Evolution for Binary Erasure Channels; 6.4.2 Error Mechanism of LDPCs on BECs; 6.4.3 Binary Symmetric Channels and the Gallager Algorithms; 6.4.4 The AWGN Channel; 6.5 Code Families and Construction
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 8.2 Parallel Concatenated Convolutional Codes

Sommario/riassunto

This new edition has been extensively revised to reflect the progress in error control coding over the past few years. Over 60% of the material has been completely reworked, and 30% of the material is original.

- Convolutional, turbo, and low density parity-check (LDPC) coding and polar codes in a unified framework
- Advanced research-related developments such as spatial coupling
- A focus on algorithmic and implementation aspects of error control coding