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5.2 Watermarking Using Side Information5.3 Dirty-Paper Codes; 5.4 Summary; Chapter 6. Practical Dirty-Paper Codes; 6.1 Practical Considerations for Dirty-Paper Codes; 6.2 Broad Approaches to Dirty-Paper Code Design; 6.3 Implementing DM with A Simple Lattice Code; 6.4 Typical Tricks in Implementing Lattice Codes; 6.5 Coding with Better Lattices; 6.6 Making Lattice Codes Survive Valumetric Scaling; 6.7 Dirty-Paper Trellis Codes; 6.8 Summary; Chapter 7. Analyzing Errors; 7.1 Message Errors; 7.2 False Positive Errors; 7.3 False Negative Errors; 7.4 ROC Curves 7.5 The Effect of Whitening on Error Rates7.6 Analysis of Normalized Correlation; 7.7 Summary; Chapter 8. Using Perceptual Models; 8.1 Evaluating Perceptual Impact of Watermarks; 8.2 General Form of A Perceptual Model; 8.3 Two Examples of Perceptual Models; 8.4 Perceptually Adaptive Watermarking; 8.5 Summary; Chapter 9. Robust Watermarking; 9.1 Approaches; 9.2 Robustness to Valumetric Distortions; 9.3 Robustness to Temporal and Geometric Distortions; 9.4 Summary; Chapter 10. Watermark Security; 10.1 Security Requirements; 10.2 Watermark Security and Cryptography 10.3 Some Significant Known Attacks10.4 Summary; Chapter 11. Content Authentication; 11.1 Exact Authentication; 11.2 Selective Authentication; 11.3 Localization; 11.4 Restoration; 11.5 Summary; Chapter 12. Steganography; 12.1 Steganographic Communication; 12.2 Notation and Terminology; 12.3 Information-Theoretic Foundations of Steganography; 12.4 Practical Steganographic Methods; 12.5 Minimizing the Embedding Impact; 12.6 Summary; Chapter 13. Steganalysis; 13.1 Steganalysis Scenarios; 13.2 Some Significant Steganalysis Algorithms; 13.3 Summary; Appendix A. Background Concepts A.1 Information Theory

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## Sommario/riassunto

Digital audio, video, images, and documents are flying through cyberspace to their respective owners. Unfortunately, along the way, individuals may choose to intervene and take this content for themselves. Digital watermarking and steganography technology greatly reduces the instances of this by limiting or eliminating the ability of third parties to decipher the content that he has taken. The many techniques of digital watermarking (embedding a code) and steganography (hiding information) continue to evolve as applications that necessitate them do the same. The authors of this second edition

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