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Nota di contenuto	Information measures in simple coding problems -- Source coding and hypothesis tsting; information measures -- Types and typical sequences -- Formal properties of Shannon's information measures -- Non-block source coding -- Blowing up lemma: a combinatorial digression -- Two-terminal systems -- The noisy channel coding problem -- Rate-distortion trade-off in source coding and the source-channel transmission problem -- Computation of channel capacity and [delta]-distortion rates -- A covering lemma and the error exponent in source coding -- A packing lemma and the error exponent in channel coding -- The compund channel revisited: zero-error information theory and extremal combinatorics -- Arbitrarily varying channels -- Multi-terminal systems -- Separate coding of correlated sources --

Multiple-access channels -- Entropy and image size characterization -- Source and channel networks -- Information-theoretic security.

Sommario/riassunto

Csiszar and Korner's book is widely regarded as a classic in the field of information theory, providing deep insights and expert treatment of the key theoretical issues. It includes in-depth coverage of the mathematics of reliable information transmission, both in two-terminal and multi-terminal network scenarios. Updated and considerably expanded, this new edition presents unique discussions of information theoretic secrecy and of zero-error information theory, including the deep connections of the latter with extremal combinatorics. The presentations of all core subjects are self contained, even the advanced topics, which helps readers to understand the important connections between seemingly different problems. Finally, 320 end-of-chapter problems, together with helpful solving hints, allow readers to develop a full command of the mathematical techniques. It is an ideal resource for graduate students and researchers in electrical and electronic engineering, computer science and applied mathematics.