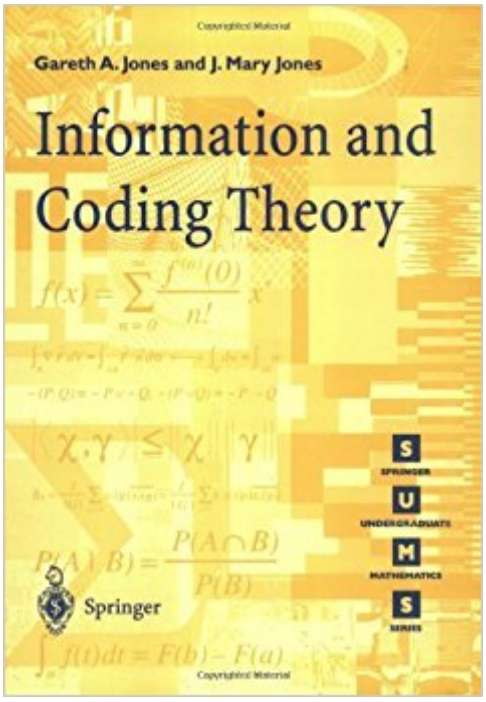
Information And Coding Theory (Springer Undergraduate Mathematics Series)



Synopsis

This text is an elementary introduction to information and coding theory. The first part focuses on information theory, covering uniquely decodable and instantaneous codes, Huffman coding, entropy, information channels, and Shannonâ ™s Fundamental Theorem. In the second part, linear algebra is used to construct examples of such codes, such as the Hamming, Hadamard, Golay and Reed-Muller codes. Contains proofs, worked examples, and exercises.

Book Information

File Size: 2364 KB

Print Length: 210 pages

Publisher: Springer; 2000 edition (October 10, 2008)

Publication Date: July 31, 2000

Sold by:Â Digital Services LLC

Language: English

ASIN: B000PC6D1I

Text-to-Speech: Enabled

X-Ray: Not Enabled

Word Wise: Not Enabled

Lending: Not Enabled

Enhanced Typesetting: Not Enabled

Best Sellers Rank: #426,161 Paid in Kindle Store (See Top 100 Paid in Kindle Store) #28 inÂ Kindle Store > Kindle eBooks > Nonfiction > Science > Mathematics > Pure Mathematics > Combinatorics #29 inÂ Kindle Store > Kindle eBooks > Nonfiction > Science > Mathematics > Pure Mathematics > Number Theory #112 inÂ Kindle Store > Kindle eBooks > Computers & Technology > Computer Science > Systems Analysis & Design

Customer Reviews

Using part A, B and C do the following.... sums up most of the book. very light on basic information, if you are just string with the materiel this is not the right book. honestly if this was not required by university would not have bought.

Incomplete proofs, very short solution to exercise questions (just a hint), too much back and forth between chapters and unexplained theorems. Unless you need this book for school, don’t buy this book.

Not all subjects are included: Arithmetic Codes, Jpeg, LZ77 etc. Answers are on back of book, they are simple and more details are needed from student

I taught an introductory undergraduate course on information theory to a small class with this book as the course book. While this book does not provide a basket full of lemmas and deep insight for doing research on quantifying information, it does what it aims to do flawlessly: provide a very accessible, lean, to-the-point and self-contained survey of the main theorems of information and coding theory. If only the undergraduate course I took back in the day had used this book as the course book.

This is a great introductory book. Other than some basic math you need no other background to get started with this book. It is an effective tool for learn information theory. The Authors take a "build from the ground up" approach. A lot of authors try to go straight to information and entropy and then talk about source and code languages. In my opinion, starting the other way around actually makes things clearer as to what the information content that you are studying is.

(Undergraduate Texts in Mathematics) Mathematics and Its History (Undergraduate Texts in Mathematics) Reading, Writing, and Proving: A Closer Look at Mathematics (Undergraduate Texts in Mathematics) The Mathematics of Nonlinear Programming (Undergraduate Texts in Mathematics)