

Foundations of Coding: Compression, Encryption, Error Correction

By Jean-Guillaume Dumas, Jean-Louis Roch, Éric Tannier, Sébastien Varrette

Download now

Read Online 

Foundations of Coding: Compression, Encryption, Error Correction By Jean-Guillaume Dumas, Jean-Louis Roch, Éric Tannier, Sébastien Varrette

Offers a comprehensive introduction to the fundamental structures and applications of a wide range of contemporary coding operations

This book offers a comprehensive introduction to the fundamental structures and applications of a wide range of contemporary coding operations. This text focuses on the ways to structure information so that its transmission will be in the safest, quickest, and most efficient and error-free manner possible. All coding operations are covered in a single framework, with initial chapters addressing early mathematical models and algorithmic developments which led to the structure of code. After discussing the general foundations of code, chapters proceed to cover individual topics such as notions of compression, cryptography, detection, and correction codes. Both classical coding theories and the most cutting-edge models are addressed, along with helpful exercises of varying complexities to enhance comprehension.

- Explains how to structure coding information so that its transmission is safe, error-free, efficient, and fast
- Includes a pseudo-code that readers may implement in their preferential programming language
- Features descriptive diagrams and illustrations, and almost 150 exercises, with corrections, of varying complexity to enhance comprehension

Foundations of Coding: Compression, Encryption, Error-Correction is an invaluable resource for understanding the various ways information is structured for its secure and reliable transmission in the 21st-century world.

 [Download Foundations of Coding: Compression, Encryption, Er ...pdf](#)

 [Read Online Foundations of Coding: Compression, Encryption, ...pdf](#)

Foundations of Coding: Compression, Encryption, Error Correction

By Jean-Guillaume Dumas, Jean-Louis Roch, Éric Tannier, Sébastien Varrette

Foundations of Coding: Compression, Encryption, Error Correction By Jean-Guillaume Dumas, Jean-Louis Roch, Éric Tannier, Sébastien Varrette

Offers a comprehensive introduction to the fundamental structures and applications of a wide range of contemporary coding operations


This book offers a comprehensive introduction to the fundamental structures and applications of a wide range of contemporary coding operations. This text focuses on the ways to structure information so that its transmission will be in the safest, quickest, and most efficient and error-free manner possible. All coding operations are covered in a single framework, with initial chapters addressing early mathematical models and algorithmic developments which led to the structure of code. After discussing the general foundations of code, chapters proceed to cover individual topics such as notions of compression, cryptography, detection, and correction codes. Both classical coding theories and the most cutting-edge models are addressed, along with helpful exercises of varying complexities to enhance comprehension.

- Explains how to structure coding information so that its transmission is safe, error-free, efficient, and fast
- Includes a pseudo-code that readers may implement in their preferential programming language
- Features descriptive diagrams and illustrations, and almost 150 exercises, with corrections, of varying complexity to enhance comprehension

Foundations of Coding: Compression, Encryption, Error-Correction is an invaluable resource for understanding the various ways information is structured for its secure and reliable transmission in the 21st-century world.

Foundations of Coding: Compression, Encryption, Error Correction By Jean-Guillaume Dumas, Jean-Louis Roch, Éric Tannier, Sébastien Varrette **Bibliography**

- Rank: #3526745 in eBooks
- Published on: 2015-01-22
- Released on: 2015-01-22
- Format: Kindle eBook

 [Download Foundations of Coding: Compression, Encryption, Er ...pdf](#)

 [Read Online Foundations of Coding: Compression, Encryption, ...pdf](#)

Download and Read Free Online Foundations of Coding: Compression, Encryption, Error Correction By Jean-Guillaume Dumas, Jean-Louis Roch, Éric Tannier, Sébastien Varrette

Editorial Review

From the Back Cover

Offers a comprehensive introduction to the fundamental structures and applications of a wide range of contemporary coding operations

This book offers a comprehensive introduction to the fundamental structures and applications of a wide range of contemporary coding operations. This text focuses on the ways to structure information so that its transmission will be in the safest, quickest, and most efficient and error-free manner possible. All coding operations are covered in a single framework, with initial chapters addressing early mathematical models and algorithmic developments which led to the structure of code. After discussing the general foundations of code, chapters proceed to cover individual topics such as notions of compression, cryptography, detection, and correction codes. Both classical coding theories and the most cutting-edge models are addressed, along with helpful exercises of varying complexities to enhance comprehension.

- Explains how to structure coding information so that its transmission is safe, error-free, efficient, and fast
- Includes a pseudo-code that readers may implement in their preferential programming language
- Features descriptive diagrams and illustrations, and almost 150 exercises, with corrections, of varying complexity to enhance comprehension

Foundations of Coding: Compression, Encryption, Error-Correction is an invaluable resource for understanding the various ways information is structured for its secure and reliable transmission in the 21st-century world.

Jean-Guillaume Dumas is Professor at the University of Grenoble, where he teaches security, programming languages, cryptology and computer algebra.

Jean-Louis Roch is Associate Professor at the National Polytechnique Institute of Grenoble (INPG), and teaches security, coding theory, cryptology, parallelism, and algorithms.

Éric Tannier is Research Associate at the National French Institute for Computer Science (INRIA). He works in computational biology in the Biometry and Evolutionary Biology Laboratory (LBBE) of the University of Lyon.

Sébastien Varrette is Research Associate at the University of Luxembourg. He works in the High Performance Computing (HPC) area, in particular as regards the security of distributed and/or parallel executions.

About the Author

Jean-Guillaume Dumas is Professor at the University of Grenoble, where he teaches security, programming languages, cryptology, and computer algebra.

Jean-Louis Roch is Associate Professor at the National Polytechnique Institute of Grenoble (INPG), and teaches security, coding theory, cryptology, parallelism, and algorithms.

Éric Tannier is Research Associate at the National French Institute for Computer Science (INRIA). He works in computational biology in the Biometry and Evolutionary Biology Laboratory (LBBE) of the University of Lyon.

Sébastien Varrette is Research Associate at the University of Luxembourg. He works in the High Performance Computing (HPC) area, in particular as regards the security of distributed and/or parallel executions.

Users Review

From reader reviews:

Velma Stuart:

Reading a book can be one of a lot of action that everyone in the world enjoys. Do you like reading book and so. There are a lot of reasons why people enjoyed. First reading a publication will give you a lot of new information. When you read a book you will get new information since book is one of various ways to share the information as well as their idea. Second, studying a book will make an individual more imaginative. When you looking at a book especially fictional works book the author will bring that you imagine the story how the figures do it anything. Third, you are able to share your knowledge to other people. When you read this Foundations of Coding: Compression, Encryption, Error Correction, you could tells your family, friends along with soon about yours book. Your knowledge can inspire the mediocre, make them reading a reserve.

Ricardo Hamilton:

Precisely why? Because this Foundations of Coding: Compression, Encryption, Error Correction is an unordinary book that the inside of the guide waiting for you to snap it but latter it will shock you with the secret that inside. Reading this book close to it was fantastic author who else write the book in such wonderful way makes the content inside of easier to understand, entertaining way but still convey the meaning entirely. So , it is good for you for not hesitating having this anymore or you going to regret it. This unique book will give you a lot of benefits than the other book possess such as help improving your proficiency and your critical thinking means. So , still want to hesitate having that book? If I have been you I will go to the reserve store hurriedly.

Christopher Hickman:

Playing with family in the park, coming to see the sea world or hanging out with pals is thing that usually you will have done when you have spare time, then why you don't try factor that really opposite from that. I activity that make you not sensation tired but still relaxing, trilling like on roller coaster you are ride on and with addition info. Even you love Foundations of Coding: Compression, Encryption, Error Correction, it is possible to enjoy both. It is fine combination right, you still want to miss it? What kind of hangout type is it? Oh seriously its mind hangout men. What? Still don't understand it, oh come on its referred to as reading friends.

Cheri Tow:

Foundations of Coding: Compression, Encryption, Error Correction can be one of your starter books that are good idea. Many of us recommend that straight away because this e-book has good vocabulary which could increase your knowledge in language, easy to understand, bit entertaining but delivering the information. The writer giving his/her effort to get every word into joy arrangement in writing Foundations of Coding: Compression, Encryption, Error Correction but doesn't forget the main position, giving the reader the hottest in addition to based confirm resource data that maybe you can be certainly one of it. This great information can easily drawn you into brand new stage of crucial pondering.

Download and Read Online Foundations of Coding: Compression, Encryption, Error Correction By Jean-Guillaume Dumas, Jean-Louis Roch, Éric Tannier, Sébastien Varrette #GR2K3BD6ZJ0

Read Foundations of Coding: Compression, Encryption, Error Correction By Jean-Guillaume Dumas, Jean-Louis Roch, Éric Tannier, Sébastien Varrette for online ebook

Foundations of Coding: Compression, Encryption, Error Correction By Jean-Guillaume Dumas, Jean-Louis Roch, Éric Tannier, Sébastien Varrette Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Foundations of Coding: Compression, Encryption, Error Correction By Jean-Guillaume Dumas, Jean-Louis Roch, Éric Tannier, Sébastien Varrette books to read online.

Online Foundations of Coding: Compression, Encryption, Error Correction By Jean-Guillaume Dumas, Jean-Louis Roch, Éric Tannier, Sébastien Varrette ebook PDF download

Foundations of Coding: Compression, Encryption, Error Correction By Jean-Guillaume Dumas, Jean-Louis Roch, Éric Tannier, Sébastien Varrette Doc

Foundations of Coding: Compression, Encryption, Error Correction By Jean-Guillaume Dumas, Jean-Louis Roch, Éric Tannier, Sébastien Varrette Mobipocket

Foundations of Coding: Compression, Encryption, Error Correction By Jean-Guillaume Dumas, Jean-Louis Roch, Éric Tannier, Sébastien Varrette EPub

GR2K3BD6ZJ0: Foundations of Coding: Compression, Encryption, Error Correction By Jean-Guillaume Dumas, Jean-Louis Roch, Éric Tannier, Sébastien Varrette