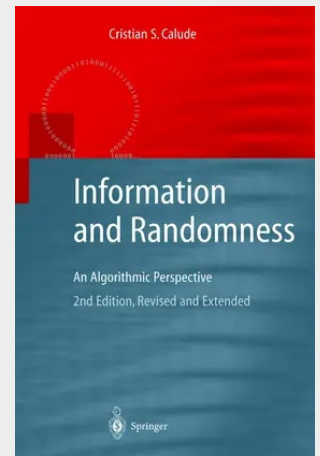


Information and Randomness

An Algorithmic Perspective

The first edition of the monograph *Information and Randomness: An Algorithmic Perspective* by Cristian Calude was published in 1994. In my Foreword I said: "The research in algorithmic information theory is already some 30 years old. However, only the recent years have witnessed a really vigorous growth in this area. The present book by Calude fits very well in our series. Much original research is presented, making the approach richer in consequences than the classical one. Remarkably, however, the text is so self-contained and coherent that the book may also serve as a textbook. All proofs are given in the book and, thus, it is not necessary to consult other sources for classroom instruction." The vigorous growth in the study of algorithmic information theory has continued during the past few years, which is clearly visible in the present second edition. Many new results, examples, exercises and open problems have been added. The additions include two entirely new chapters: "Computably Enumerable Random Reals" and "Randomness and Incompleteness". The really comprehensive new bibliography makes the book very valuable for a researcher. The new results about the characterization of computably enumerable random reals, as well as the fascinating Omega Numbers, should contribute much to the value of the book as a textbook. The author has been directly involved in these results that have appeared in the prestigious journals *Nature*, *New Scientist* and *Pour la Science*.

The first edition of the monograph *Information and Randomness: An Algorithmic Perspective* by Cristian Calude was published in 1994. In my Foreword I said: "The research in algorithmic information theory is already some 30 years old. However, only the recent years have witnessed a really vigorous growth in this area. The present book by Calude fits very well in our series. Much original research is presented, making the approach richer in consequences than the classical one. Remarkably, however, the text is so self-contained and coherent that the book may also serve as a textbook. All proofs are given in the book and, thus, it is not necessary to consult other sources for classroom instruction." The vigorous growth in the study of algorithmic information theory has continued during the past few years, which is clearly visible in the present second edition. Many new results, examples, exercises and open problems have been added. The additions include two entirely new chapters: "Computably Enumerable Random Reals" and "Randomness and Incompleteness". The really comprehensive new bibliography makes the book very valuable for a researcher. The new results about the characterization of computably enumerable random reals, as well as the fascinating Omega Numbers, should contribute much to the value of the book as a textbook. The author has been directly involved in these results that have appeared in the prestigious journals *Nature*, *New Scientist* and *Pour la Science*.



85,59 €

79,99 € (zzgl. MwSt.)

Lieferfrist: bis zu 10 Tage

Artikelnummer: 9783540434665

Medium: Buch

ISBN: 978-3-540-43466-5

Verlag: Springer Berlin Heidelberg

Erscheinungstermin: 12.09.2002

Sprache(n): Englisch

Auflage: 2. Auflage 2002

Serie: Texts in Theoretical Computer Science. An EATCS Series

Produktform: Gebunden

Gewicht: 1900 g

Seiten: 468

Format (B x H): 160 x 241 mm

