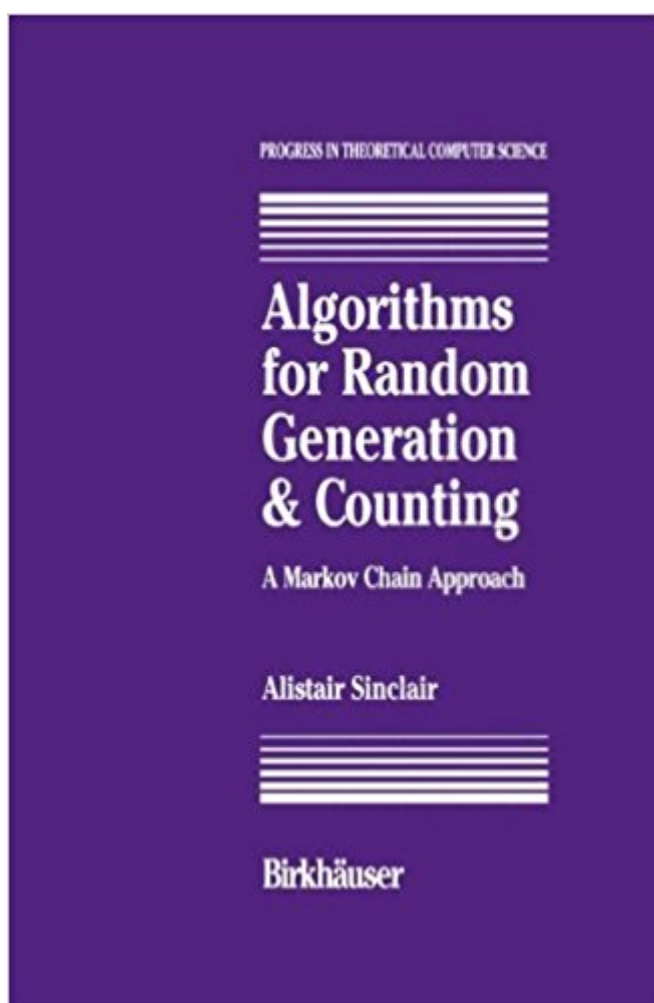The book was found

Algorithms For Random Generation And Counting: A Markov Chain Approach (Progress In Theoretical Computer Science)

Synopsis

This monograph is a slightly revised version of my PhD thesis [86], comÃ Â- pleted in the Department of Computer Science at the University of EdinÃ Â- burgh in June 1988, with an additional chapter summarising more recent developments. Some of the material has appeared in the form of papers [50,88]. The underlying theme of the monograph is the study of two classical problems: counting the elements of a finite set of combinatorial structures, and generating them uniformly at random. In their exact form, these probÃ Â- lems appear to be intractable for many important structures, so interest has focused on finding efficient randomised algorithms that solve them apÃ Â- proxim~ly, with a small probability of error. For most natural structures the two problems are intimately connected at this level of approximation, so it is natural to study them together. At the heart of the monograph is a single algorithmic paradigm: simÃ Â- ulate a Markov chain whose states are combinatorial structures and which converges to a known probability distribution over them. This technique has applications not only in combinatorial counting and generation, but also in several other areas such as statistical physics and combinatorial optimiÃ Â- sation. The efficiency of the technique in any application depends crucially on the rate of convergence of the Markov chain.

Book Information

Algorithms for Random Generation and Counting: A Markov Chain Approach (Progress in

Theoretical Computer Science) Markov Models: Understanding Data Science, Markov Models, and Unsupervised Machine Learning in Python Markov Models: An Introduction to Markov Models Extremal Combinatorics: With Applications in Computer Science (Texts in Theoretical Computer Science. An EATCS Series) Computer Vision: Algorithms and Applications (Texts in Computer Science) Ways of Counting: All the Counting Methods beginning with Permutations and Combinations (Quick Review and Preview Series in Math and Science Book 2) Philosophical And Theoretical Perspectives For Advanced Nursing Practice (Cody, Philosophical and Theoretical Perspectives for Advances Nursing Practice) Blackjack Strategy: Winning at Blackjack:Tips and Strategies for Winning and Dominating at the Casino (Blackjack, Counting Cards, Blackjack Winning, Good at Blackjack, Black Jack, Card Counting) Complete Guide to Carb Counting: How to Take the Mystery Out of Carb Counting and Improve Your Blood Glucose Control Theoretical Nursing: Development and Progress How Many Snails?: A Counting Book (Counting Books (Greenwillow Books)) 1st Grade Computer Basics : The Computer and Its Parts: Computers for Kids First Grade (Children's Computer Hardware Books) Evolutionary Algorithms in Theory and Practice: Evolution Strategies, Evolutionary Programming, Genetic Algorithms Bundle of Algorithms in C++, Parts 1-5: Fundamentals, Data Structures, Sorting, Searching, and Graph Algorithms (3rd Edition) (Pts. 1-5) Practical Algorithms in Pediatric Hematology and Oncology: (Practical Algorithms in Pediatrics. Series Editor: Z. Hochberg) Logic Minimization Algorithms for VLSI Synthesis (The Springer International Series in Engineering and Computer Science) Combinatorial Optimization: Algorithms and Complexity (Dover Books on Computer Science) The Autobiography of Emperor Haile Sellassie I: King of Kings of All Ethiopia and Lord of All Lords (My Life and Ethiopia's Progress) (My Life and ... (My Life and Ethiopia's Progress (Paperback)) Computer Science for the Curious: Why Study Computer Science? (The Stuck Student's Guide to Picking the Best College Major and Career) Practical Algorithms in Pediatric Nephrology: (Practical Algorithms in Pediatrics. Series Editor: Z. Hochberg)