



Algorithms for Random Generation and Counting: a Markov Chain Approach (Paperback)

By A. Sinclair

Springer-Verlag New York Inc., United States, 2013. Paperback. Book Condition: New. 235 x 155 mm. Language: English . Brand New Book. This monograph is a slightly revised version of my PhD thesis [86], completed in the Department of Computer Science at the University of Edinburgh 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 problems appear to be intractable for many important structures, so interest has focused on finding efficient randomised algorithms that solve them approximately, 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: simulate 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...



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Reviews

This publication is indeed gripping and intriguing. It is actually written in basic terms and not difficult to understand. I am just pleased to explain how here is the greatest publication we have read through during my own lifestyle and could be the best pdf for at any time.

-- **Ervin Crona**

Thorough information! It's this kind of very good read. It is written in basic words and not hard to understand. You won't feel monotony at anytime of your respective time (that's what catalogues are for regarding should you question me).

-- **Roel Bogisich Sr.**