## 第一图书网, tushu007.com

# <<科学计算中的蒙特卡罗策略>>

#### 图书基本信息

书名:<<科学计算中的蒙特卡罗策略>>

13位ISBN编号:9787506272582

10位ISBN编号:750627258X

出版时间:2005-6

出版时间:世界图书出版公司

作者: J.S.Liu

页数:343

版权说明:本站所提供下载的PDF图书仅提供预览和简介,请支持正版图书。

更多资源请访问:http://www.tushu007.com

## 第一图书网,tushu007.com

## <<科学计算中的蒙特卡罗策略>>

### 内容概要

An early experiment that conceives the basic idea of Monte Carlo compu-tatios is known as "Buffon'needle", first stated by Georges Louis Leclerc Comte de Buffon in 1777. In this well-known experiment, on throws a needle of length I onto a flat surface with a grid of parallel lines with spacing. It is easy to compute that, under ideal conditions, the chance that the needle will intersect one of the lines in . Thus, if we lep pN be the Proportion of "intersects" in N throws, we can have an estimate of as wjocj will "converge" to as N increases to infinity.

### 第一图书网, tushu007.com

## <<科学计算中的蒙特卡罗策略>>

#### 书籍目录

Preface 1 Introduction and Examples 1.1 The Need of Monte Carlo Techniques 1.2 Scope and Outline of the 1.5 Bioinformatics: 1.3 Computations in Statistical Physics 1.4 Molecular Structure Simulation 1.6 Nonlinear Dynamic System: Target Tracking Finding Weak Repetitive Patterns 1.7 Hypothesis Testing for **Astronomical Observations** 1.8 Bayesian Inference of Multilevel Models 1.9 Monte Carlo and Missing Data Problems 2 Basic Principles: Rejection, Weighting, and Others 2.1 Generating Simple Random Variables 2.2 The Rejection Method 2.3 Variance Reduction Methods 2.4 Exact Methods for Chain-Structured 2.4.1 Dynamic programming 2.4.2 Exact simulation 2.5 Importance Sampling and Weighted Models Sample 2.5.1 An example 2.5.2 The basic idea 2.5.3 The "rule of thumb" for importance sampling.....3 Theory of Sequential Monte Carlo4 Sequential Monte Carlo in Action5 Metropolis Algorithm and Beyond6 The Gibbs Sampler7 Cluster Algorithms for the Ising Model8 General ConditionI Sampling9 Molecular Dynamics and Hybrid Monte Carlo 10 Multievel Sampling and Optimization Methods 11 Population-Based Monte Carlo Methods12 Markov Chains and Their Convergence13 Selected Theoretical TopicsA Basics in Probability and StatisticsReferencesAuthor IndexSubject Index

# 第一图书网, tushu007.com

# <<科学计算中的蒙特卡罗策略>>

### 版权说明

本站所提供下载的PDF图书仅提供预览和简介,请支持正版图书。

更多资源请访问:http://www.tushu007.com