

<<图像分析、随机场和动态蒙特卡罗方法>>

图书基本信息

书名：<<图像分析、随机场和动态蒙特卡罗方法>>

13位ISBN编号：9787506238250

10位ISBN编号：750623825X

出版时间：1999-3

出版时间：世界图书出版公司

作者：G.Winkler

页数：324

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>

## <<图像分析、随机场和动态蒙特卡>>

### 内容概要

This text is concerned with a probabilistic approach to image analysis as initiated by U. GRENANDER, D. and S. GEMAN, B.R. HUNT and many others, and developed and popularized by D. and S. GEMAN in a paper from 1984. It formally adopts the Bayesian paradigm and therefore is referred to as 'Bayesian Image Analysis'. There has been considerable and still growing interest in prior models and, in particular, in discrete Markov random field methods. Whereas image analysis is replete with ad hoc techniques, Bayesian image analysis provides a general framework encompassing various problems from imaging. Among those are such 'classical' applications like restoration, edge detection, texture discrimination, motion analysis and tomographic reconstruction. The subject is rapidly developing and in the near future is likely to deal with high-level applications like object recognition. Fascinating experiments by Y. CHOW, U. GRENANDER and D.M. KEENAN(1987), (1990) strongly support this belief.

书籍目录

Introduction Part . Bayesian Image Analysis: Introduction 1. The Bayesian Paradigm 1.1 The Space of Images  
1.2 The Space of Observations 1.3 Prior and Posterior Distribution 1.4 Bayesian Decision Rules 2. Cleaning  
Dirty Pictures 2.1 Distortion of Images 2.1.1 Physical Digital Imaging Systems 2.1.2 Posterior Distributions  
2.2 Smoothing 2.3 Piecewise Smoothing 2.4 Boundary Extraction 3. Random Fields 3.1 Markov Random  
Fields 3.2 Gibbs Fields and Potentials 3.3 More on Potentials Part . The Gibbs Sampler and Simulated  
Annealing 4. Markov Chains: Limit Theorems 4.1 Preliminaries 4.2 The Contraction Coefficient 4.3  
Homogeneous Markov Chains 4.4 Inhomogeneous Markov Chains 5. Sampling and Annealing 5.1 Sampling  
5.2 Simulated Annealing 5.3 Discussion 6. Cooling Schedules 6.1 The ICM Algorithm 6.2 Exact MAPE  
Versus Fast Cooling 6.3 Finite Time Annealing 7. Sampling and Annealing Revisited 7.1 A Law of Large  
Numbers for Inhomogeneous Markov Chains 7.2 A General Theorem 7.3 Sampling and Annealing Under  
Constraints Part . More on Sampling and Annealing 8. Metropolis Algorithms 9. Alternative Approaches  
10. Parallel Algorithms Part . Texture Analysis 11. Partitioning 12. Texture Models and Classification Part  
. Parameter Estimation 13. Maximum Likelihood Estimators 14. Spatial ML Estimation Part . Supplement 15. A  
Glance at Neural Networks 16. Mixed Applications Part . Appendix A. Simulation of Random Variables B. The  
Perron-Frobenius Theorem C. Concave Functions D. A Global Convergence Theorem for Descent  
Algorithms References Index

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>