

Bayesian Analysis of Gene Expression Data

Bani K. Mallick, Texas A&M University, USA

David Lee Gold, University at Buffalo, The State University of New York, USA

Veerabhadran Baladandayuthapani, University of Texas MD Anderson Cancer Center, USA

The field of high-throughput genetic experimentation is evolving rapidly, with the advent of new technologies and new venues for data mining. Bayesian methods play a role central to the future of data and knowledge integration in the field of Bioinformatics. This book is devoted exclusively to Bayesian methods of analysis for applications to high-throughput gene expression data, exploring the relevant methods that are changing Bioinformatics. Case studies, illustrating Bayesian analyses of public gene expression data, provide the backdrop for students to develop analytical skills, while the more experienced readers will find the review of advanced methods challenging and attainable.

This book:

- Introduces the fundamentals in Bayesian methods of analysis for applications to high-throughput gene expression data.
- Provides an extensive review of Bayesian analysis and advanced topics for Bioinformatics, including examples that extensively detail the necessary applications.
- Accompanied by website featuring datasets, exercises and solutions.

Bayesian Analysis of Gene Expression Data offers a unique introduction to both Bayesian analysis and gene expression, aimed at graduate students in Statistics, Biomedical Engineers, Computer Scientists, Biostatisticians, Statistical Geneticists, Computational Biologists, applied Mathematicians and Medical consultants working in genomics. Bioinformatics researchers from many fields will find much value in this book.



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ISBN 978-0-470-51766-6



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