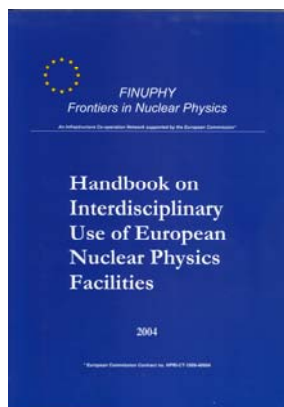
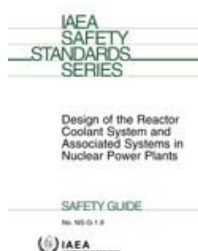


## Publicações Recebidas



Para mais informações sobre FINUPHY:

<http://www.finuphy.org/index.asp>



### Design of the Reactor Coolant System and Associated Systems in Nuclear Power Plants Safety Guide

*Safety Standards Series No. NS-G-1.9*

This publication is a revision and combination of two previous Safety Guides: Safety Series No. 50-SG-D6, Ultimate Heat Sink and Directly Associated Heat Transport Systems for Nuclear Power Plants (1981), and Safety Series No. 50-SG-D13, Reactor Coolant and Associated Systems in Nuclear Power Plants (1986), which are superseded by this new Safety Guide. The revision takes account of developments in the design of the reactor coolant and associated systems in nuclear power plants since the earlier Safety Guides were published in 1981 and 1986, respectively. The other objectives of the revision are to ensure consistency with the Requirements for Design, issued in 2000, and to update the technical content. In addition, an appendix on pressurized heavy water reactors has been included.

STI/PUB/1187, 79 pp.; 4 figures; 2004, ISBN 92-0-103404-0, English. 18.00 Euro

[http://www-pub.iaea.org/MTCD/publications/PDF/Pub1187\\_web.pdf](http://www-pub.iaea.org/MTCD/publications/PDF/Pub1187_web.pdf)

Subject Classification: 0603 - Nuclear power plants; 0612 - Safety analysis; 0702 - Nuclear power operations.



### Commissioning and Quality Assurance of Computerized Planning Systems for Radiation Treatment of Cancer

*Technical Reports Series No. 430*

This report is intended to support hospitals in developing procedures for the commissioning and quality assurance (QA) of computerized treatment planning systems (TPSs). The relatively low cost of today's equipment has made TPSs widely available in industrialized and developing countries, but, with the exception of a few national recommendations for QA in North America and Western Europe, there are no publications available that professionals can follow to develop procedures to check their TPSs. The rationale for the multiple tests described in this report is related to the four major issues of a well structured QA programme in computerized treatment planning, namely education, verification, documentation and communication.

STI/DOC/010/430, 281 pp.; 27 figures; 2004, ISBN 92-0-105304-5, English. 42.00 Euro. Date of Issue: 28 October 2004.

[http://www-pub.iaea.org/MTCD/publications/PDF/TRS430\\_web.pdf](http://www-pub.iaea.org/MTCD/publications/PDF/TRS430_web.pdf)

Subject Classification: 0103 - Medical physics (including dosimetry); 0303 - Dosimetry (techniques).



## Status of Industrial Scale Radiation Treatment of Wastewater and Its Future

IAEA TECDOC Series No. 1407

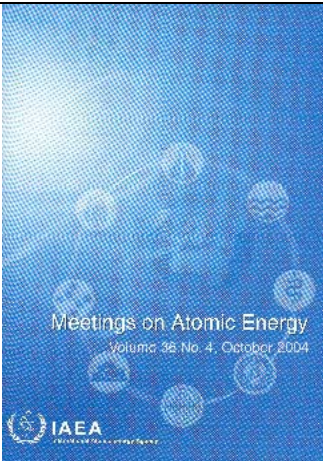
Fundamental studies of the radiation process for wastewater treatment, its analogues and differences to other advanced oxidation technologies and of combined processes are presented in the report. Possible fields of application, technical solutions and economic factors concerning engineering and other applications are addressed as well. Developments concerning accelerator design engineering and construction as well as other features of radiation sources are reviewed in the papers. Further discussions include the design of under-beam systems. Such progress and developments are critical for further applications. A reduction in cost and improvement of technical reliability are expected, especially high power accelerators are needed for environmental applications. The papers point out that such applications should be carefully revised in accordance with the existing regulations and state of the art knowledge. The results of the discussions summarized in the TECDOC may serve as the basis for the preparation of guidelines and feasibility studies for full-scale process implementation. Public awareness and technology acceptance are additional factors to be considered for further dissemination; therefore this publication is a valuable source providing necessary information for engineers, environmentalists and decision makers.

IAEA-TECDOC-1407, 2004, ISBN 92-0-110104-X, English. 15.00 Euro. Date of Issue: 3 November 2004.

Subject Classification: 0500 - Industrial Applications; 1300 - Environment.

[http://www-pub.iaea.org/MTCD/publications/PDF/te\\_1407\\_web.pdf](http://www-pub.iaea.org/MTCD/publications/PDF/te_1407_web.pdf)

## Publicações Periódicas Oferecidas

	<p>This quarterly list comprises conferences, exhibitions and training courses that have been planned on subjects directly or indirectly related to nuclear energy and its peaceful uses.</p> <p>N.B. Exemplos disponíveis na Biblioteca a quem o solicitar.</p>
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## Publicações Adquiridas



### Artificial Neural Nets and Genetic Algorithms

Kurkova, V. , Steele, N. , Neruda, R. , Kary, M. (eds.)

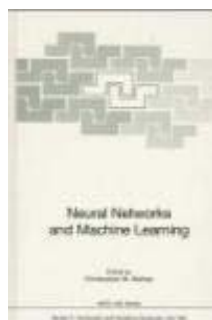
Proceedings of the International Conference in Prague, Czech Republic, 2001

2001. XIII, 504 pages. 375 figures.

The papers in this volume present theoretical insights and reports on successful applications of artificial neural networks and genetic algorithms. A dual affinity with biology is shown as several papers deal with cognition, neurocontrol, and biologically inspired brain models and others describe successful applications of computational methods to biology and environmental science. Theoretical contributions cover a variety of topics including nonlinear approximation by feedforward networks, representation of spiking perceptrons by classical ones, recursive networks and associative memories, learning and generalization, population attractors, and proposal and analysis of new genetic operators or measures. These theoretical studies are augmented by a wide selection of application-oriented papers on topics ranging from signal processing, control, pattern recognition and times series prediction to routing tasks. To keep track of the rapid development of the field of computational intelligence, the scope of the conference has been extended to hybrid methods and tools for which neural networks and evolutionary algorithms are combined with methods of soft computing, fuzzy logic, probabilistic computing, and symbolic artificial intelligence, to computer-intensive methods in control and data processing, and to data mining in meteorology and air pollution.

#### Keywords:

artificial intelligence, neural networks, genetic algorithms/künstliche Intelligenz, neuronale Netze, genetische Algorithmen



### Neural Networks and Machine Learning

Proceedings of the NATO Advanced Study Institute on Generalization in Neural Networks and Machine Learning, held in Cambridge, U.K., August 4-15, 1997

Series : [NATO ASI Series](#)

Subseries : [Computer and Systems Sciences](#) , Vol. 168

Bishop, Christopher M. (Ed.)

1998, XII, 353 pp., Hardcover

ISBN: 3-540-64928-X

#### Contents:

B. D. Ripley:  
"Statistical Principles of Model Fitting"

L. Brieman:  
"Bias-Variance, Regularization, Instability and Stabilization"

J. M. Buhman and N. Tishby:  
"Empirical Risk Optimization: A Statistical Learning Theory of Data Clustering"

E. D. Sontag:  
"VC Dimension of Neural Networks"

R. M. Neal:  
"Assessing Relevance Determination Methods using DELVE"

D. J. C. MacKay:  
"Introduction to Gaussian Processes"

#### Preface:

From July to December 1997, the Isaac Newton Institute for Mathematical Sciences in Cambridge was host to a major international programme entitled "Neural Networks and Machine Learning". Many of the world's leading researchers in the field participated for periods ranging from a few weeks up to six months, and numerous younger scientists also benefited from a variety of conferences and workshops held throughout the programme. The Newton Institute's purpose-designed building provided a superb research environment, as well as an excellent venue for workshops.

H. Zhu, C. K. I. Williams, R. Rohwer and M. Morciniec:  
"Gaussian Regression and Optimal Finite Dimensional Linear Models"

T. S. Jaakkola and M. I. Jordan:  
"Variational Methods and the QMR-DT Database"

D. Barber and C. M. Bishop:  
"Ensemble Learning in Bayesian Neural Networks"

V. Vapnik:  
"The Support Vector Method of Function Estimation"

B. Sallans, G. E. Hinton and Z. Ghahramani:  
"A Hierarchical Community of Experts"

E. B. Baum:  
"Manifesto for an Evolutionary Economics of Intelligence"



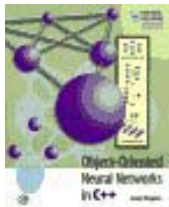
## Practical Neural Network Recipes in C++

by [Timothy Masters](#)

- **Paperback:** 493 pages ; Dimensions (in inches): 0.96 x 9.17 x 7.50
- **Publisher:** Morgan Kaufmann; Book & Disk 1st edition (March 31, 1993)
- **ISBN:** 0124790402



[http://www.amazon.com/gp/reader/0124790402/ref=sib\\_dp\\_rdr/104-5948753-7015907#reader-page](http://www.amazon.com/gp/reader/0124790402/ref=sib_dp_rdr/104-5948753-7015907#reader-page)



## Object-Oriented Neural Networks in C++

by Joey Rogers

- **Paperback:** 300 pages ; Dimensions (in inches): 0.96 x 9.21 x 7.32
- **Publisher:** Morgan Kaufmann; Book & Disk 1st edition (October 15, 1996)
- **ISBN:** 0125931158



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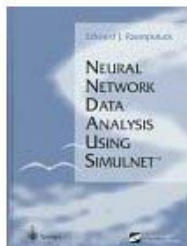
## Neural Networks for Pattern Recognition

by Christopher M. Bishop

- **Paperback:** 504 pages ; Dimensions (in inches): 9.25 x 1.25 x 6.25
- **Publisher:** Oxford University Press; (November 1, 1995)
- **ISBN:** 0198538642



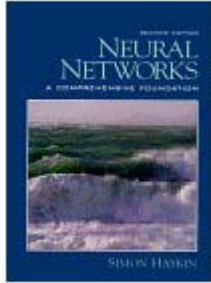
[http://www.amazon.com/gp/reader/0198538642/ref=sib\\_dp\\_pt/104-5948753-7015907#reader-link](http://www.amazon.com/gp/reader/0198538642/ref=sib_dp_pt/104-5948753-7015907#reader-link)



## Neural Network Data Analysis Using Simulnet

by Edward J. Rzepoluck

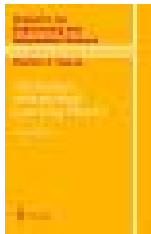
- **Hardcover:** 226 pages ; Dimensions (in inches): 0.85 x 9.59 x 7.24
- **Publisher:** Springer-Verlag; Bk&CD Rom edition (January 15, 1998)
- **ISBN:** 0387982558



## Neural Networks: A Comprehensive Foundation (2nd Edition)

by Simon Haykin

- **Hardcover:** 842 pages ; Dimensions (in inches): 1.43 x 9.54 x 7.10
- **Publisher:** Prentice Hall; 2nd edition (July 6, 1998)
- **ISBN:** 0132733501



## The Nature of Statistical Learning Theory (Statistics for Engineering and Information Science)

by Vladimir N. Vapnik

- **Hardcover:** 214 pages ; Dimensions (in inches): 0.83 x 9.50 x 6.42
- **Publisher:** Springer-Verlag; 2nd edition (December 1, 1999)
- **ISBN:** 0387987800



[http://www.amazon.com/gp/reader/0387987800/ref=sib\\_dp\\_pt/104-5948753-7015907#reader-link](http://www.amazon.com/gp/reader/0387987800/ref=sib_dp_pt/104-5948753-7015907#reader-link)



## Neural Network Analysis, Architectures and Applications

by Antony Browne

- **Hardcover:** 263 pages ; Dimensions (in inches): 9.75 x 0.75 x 6.50
- **Publisher:** Institute of Physics Publishing; (September 1, 1997)
- **ISBN:** 0750304995

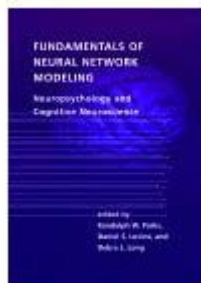


## Emergent Neural Computational Architectures Based on Neuroscience: Towards Neuroscience-Inspired Computing (Lecture Notes in Artificial Intelligence)

by Stefan Wermter, David J. Willshaw, Jim Austin, James Austin

- **Paperback:** 76 pages ; Dimensions (in inches): 9.50 x 0.75 x 6.25
- **Publisher:** Springer-Verlag Telos; (September 1, 2001)
- **ISBN:** 354042363X





## Fundamentals of Neural Network Modeling: Neuropsychology and Cognitive Neuroscience (Computational Neuroscience)

by Randolph W. Parks (Editor), Daniel S. Levine (Editor), Debra L. Long (Editor)

- **Hardcover:** 428 pages ; Dimensions (in inches): 10.50 x 1.25 x 7.50
- **Publisher:** Bradford Books; (December 11, 1998)
- **ISBN:** 0262161753

### Book Description

Over the past few years, computer modeling has become more prevalent in the clinical sciences as an alternative to traditional symbol-processing models. This book provides an introduction to the neural network modeling of complex cognitive and neuropsychological processes. It is intended to make the neural network approach accessible to practicing neuropsychologists, psychologists, neurologists, and psychiatrists. It will also be a useful resource for computer scientists, mathematicians, and interdisciplinary cognitive neuroscientists. The editors (in their introduction) and contributors explain the basic concepts behind modeling and avoid the use of high-level mathematics.

The book is divided into four parts. Part I provides an extensive but basic overview of neural network modeling, including its history, present, and future trends. It also includes chapters on attention, memory, and primate studies. Part II discusses neural network models of behavioral states such as alcohol dependence, learned helplessness, depression, and waking and sleeping. Part III presents neural network models of neuropsychological tests such as the Wisconsin Card Sorting Task, the Tower of Hanoi, and the Stroop Test. Finally, part IV describes the application of neural network models to dementia: models of acetylcholine and memory, verbal fluency, Parkinsons disease, and Alzheimer's disease.

## Artificial Neural Nets and Genetic Algorithms: Proceedings of the International Conference in Portoroz, Slovenia, 1999

by Andrej Dobnikar, Nigel C. Steele, David W. Pearson, Rudolf F. Albrecht

- **Paperback:** 350 pages ; Dimensions (in inches): 10.75 x 0.75 x 8.25
- **Publisher:** Springer-Verlag Telos; (August 1, 1999)
- **ISBN:** 3211833641



## Fundamentals of Nuclear Pharmacy

Saha, Gopal B.

5th ed., 2004, XVII, 383 p. 102 illus

- **Hardcover:** 383 pages ; Dimensions (in inches): 0.91 x 8.98 x 6.86
- **Publisher:** Springer-Verlag; 5th edition (December 1, 2003)
- **ISBN:** 0387403604

### About this book

This is the classic text/reference of nuclear pharmacy, thoroughly updated and judiciously expanded. Generously supplemented with charts, tables, and more than 100 illustrations throughout, each chapter provides the reader with well-delineated descriptions, from the basic atomic structure through the clinical uses of radiopharmaceuticals. Previous editions were unanimously praised for their clarity and accuracy, as Dr. Saha set new standards for making complex theoretical concepts readily understandable for students and practitioners in nuclear pharmacy and nuclear medicine. New features in the Fourth Edition include: - up-to-date descriptions of the latest NRC and FDA regulations - clinical uses of all new radiopharmaceuticals and techniques, including those radiopharmaceuticals having the potential for clinical use - quality control data for all new radiopharmaceuticals - dosimetry data for all new radiopharmaceuticals - an entire new chapter devoted to the therapeutic uses of radiopharmaceuticals - an upgraded section on <sup>99m</sup>Tc chemistry - addition to the <sup>62</sup>Zn-<sup>62</sup>Cu generator in the chapter on "Radionuclide Generators" - latest developments in brain, heart, and tumor imaging - a new section on parathyroid imaging From reviews of the Third Edition: "the strengths of this edition, coupled with its currentness, make this book today's frontrunner among introductory radiopharmacy texts." -Clinical Nuclear Medicine " an excellent overview of all different aspects of nuclear pharmacy consistent, well-written, concise. I can recommend it as a reference in nuclear pharmacy and as a textbook for nuclear medicine technologists." -European Journal of Nuclear Medicine



## Contrast Agents II

Optical, Ultrasound, X-Ray Imaging and Radiopharmaceutical Imaging  
With contributions by numerous experts

by [Werner Krause](#)

- **Hardcover:** 291 pages ; . 138 illus. (Also available as online-version)  
Dimensions (in inches): 9.25 x 1.00 x 6.25
- **Publisher:** Springer-Verlag; (September 17, 2002)
- **ISBN:** 3540434518

Series : [Topics in Current Chemistry](#) , Vol. 222 / 2002

Title: Contrast Agents II -/- Optical, Ultrasound, X-Ray and Radiopharmaceutical Imaging

abstracts online-version:

<http://springerlink.com/app/home/issue.asp?wasp=a5t5amqymh3wvpxhdr02&referrer=parent&backto=journal,22,58;linkingpublicationresults,1:110311,1>

## Publicações Oferecidas



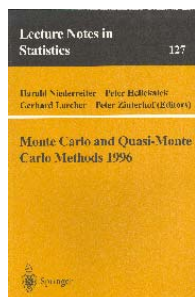
### Relativity, Groups, Particles

Special Relativity and Relativistic Symmetry in Field and Particle Physics

**Sexl**, Roman U., **Urbantke**, Helmuth K.

2001, XII, 388 pp. 56 figs., 1 frontispiece., Softcover

ISBN: 3-211-83443-5



### Monte Carlo and Quasi-Monte Carlo Methods 1996

Proceedings of a Conference at the University of Salzburg, Austria, July 9-12, 1996

Series : [Lecture Notes in Statistics](#) , Vol. 127

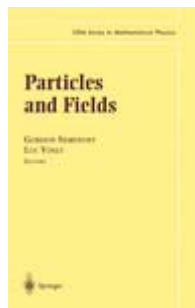
Niederreiter, H.; Hellekalek, P.; Larcher, G.; Zinterhof, P. (Eds.)

1998, XII, 448 pp., Softcover

ISBN: 0-387-98335-X

#### About this book

Monte Carlo methods are numerical methods based on random sampling and quasi-Monte Carlo methods are their deterministic versions. This volume contains the refereed proceedings of the Second International Conference on Monte Carlo and Quasi-Monte Carlo Methods in Scientific Computing which was held at the University of Salzburg (Austria) from July 9--12, 1996. The conference was a forum for recent progress in the theory and the applications of these methods. The topics covered in this volume range from theoretical issues in Monte Carlo and simulation methods, low-discrepancy point sets and sequences, lattice rules, and pseudorandom number generation to applications such as numerical integration, numerical linear algebra, integral equations, binary search, global optimization, computational physics, mathematical finance, and computer graphics. These proceedings will be of interest to graduate students and researchers in Monte Carlo and quasi-Monte Carlo methods, to numerical analysts, and to practitioners of simulation methods.



## Particles and Fields

Series : [CRM Series in Mathematical Physics](#)

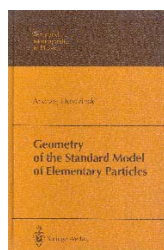
Semenoff, Gordon W.; Vinet, Luc (Eds.)

1999, XVI, 489 p. 52 illus., Hardcover

ISBN: 0-387-98402-X

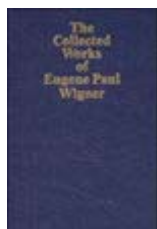
### About this book

The focus of this volume is on quantum field theory: integrable theories, statistical systems, and applications to condensed-matter physics. It covers some of the most significant recent advances in theoretical physics at a level accessible to advanced graduate students. The contributions, each by a noted researcher, discuss such topics as: some remarkable features of integrable Toda field theories (E. Corrigan), properties of a gas of interacting Fermions in a lattice of magnetic ions (J. Feldman & al.), how quantum groups arise in three-dimensional topological quantum field theory (D. Freed), a method for computing correlation functions of solvable lattice models (T. Miwa), matrix models discussed from the point of view of integrable systems (A. Morozov), localization of path integrals in certain equivariant cohomologies (A. Niemi), Calogero-Moser systems (S. Ruijsenaars), planar gauge theories with broken symmetries (M. de Wild Propitius & F.A. Bais), quantum-Hall fluids (A. Capelli & al.), spectral theory of quantum vortex operators (P.I. Ettinghoff).



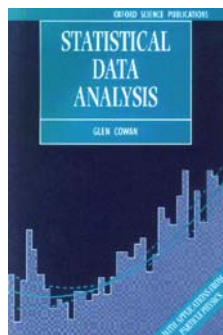
## Geometry of the Standard Model of Elementary Particles, Andrzej Derdzinski

a book in the series *Texts and Monographs in Physics*, Springer-Verlag, 1992 (xii + 199 pp., ISBN 3-540-54356-2).



## The Collected Works of Eugene Paul Wigner. Vol.3/1-2

Ed. by Arthur S. Wightman



## Statistical Data Analysis

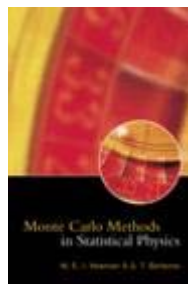
Glen Cowan, Royal Holloway College, University of London

### Description

"Glen Cowan is a particle physicist who seems to have got everything right. Results are stated clearly, without mathematical proof but with enough explanation to satisfy the physicist's need to understand not only how, but also why...Those teaching an advanced undergraduate or graduate course in statistics or physicists will find this a good textbook...Do not be fooled by the fact that it does not have the "textbook look" - the exercises have been made available separately on a Web site. " **CERN Courier**

This book is a guide to the practical application of statistics in data analysis as typically encountered in the physical sciences. It is primarily addressed at students and professionals who need to draw quantitative conclusions from experimental data. Although most of the examples are taken from particle physics, the material is presented in a sufficiently general way as to be useful to people from most branches of the physical sciences.





## Monte Carlo Methods in Statistical Physics

**M. E. J. Newman**, Santa Fe Institute, New Mexico, USA, and **G. T. Barkema**, Institute for Theoretical Physics, Utrecht University, The Netherlands

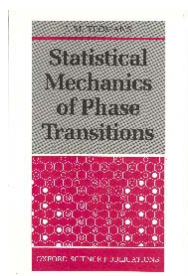
0-19-851797-1

Publication date: 11 February 1999

Clarendon Press 490 pages, 1 halftone, numerous line figures, 234mm x 156mm

### Description

This book provides an introduction to Monte Carlo simulations in classical statistical physics aimed both at students beginning work in the field and at more experienced researchers who wish to learn more about Monte Carlo methods. The material covered includes methods for both equilibrium and out of equilibrium systems, and common algorithms like the Metropolis and heat-bath algorithms. Also discussed are more sophisticated methods such as continuous time Monte Carlo, cluster algorithms, multigrid methods, entropic sampling and simulated tempering.



## Statistical Mechanics of Phase Transitions

by [J.M. Yeomans](#)

- **Paperback:** 168 pages ; Dimensions (in inches): 0.46 x 9.22 x 6.14
- **Publisher:** Oxford University Press; (April 1, 1992)
- **ISBN:** 0198517300

### Book Description

Recent developments have led to a good understanding of universality: why phase transitions in systems as diverse as magnets, fluids, liquid crystals, and superconductors can be brought under the same theoretical umbrella and accurately described by simple models. This book describes the physics underlying universality and then lays out the theoretical approaches now available for studying phase transitions. Traditional techniques, mean-field theory, series expansions, and the transfer matrix, are described; the Monte Carlo method is covered; and two chapters are devoted to the renormalization group which led to a breakthrough in the field. The book will be useful as a textbook for a course in phase transitions, as an introduction for graduate students undertaking research in related fields, and as an overview for scientists in other disciplines who work with phase transitions but who are not aware of the current tools of theoretical physics.



[http://www.amazon.com/gp/reader/0198517300/ref=sib\\_dp\\_pt/104-5948753-7015907#reader-link](http://www.amazon.com/gp/reader/0198517300/ref=sib_dp_pt/104-5948753-7015907#reader-link)

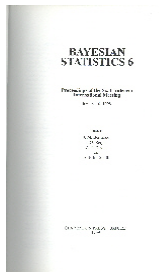


## Neutron Scattering – 1981 (Argonne National Laboratory)

Edited by John Faber, Jr.

AIP Conference Proceedings n° 89

AIP, New York, 1982



## **Bayesian Statistics 6** - Proceedings of the Sixth Valencia International Meeting

Edited by: **José M. Bernardo**, Professor of Statistics, Universitat de Valencia, Spain,

**James O. Berger**, Professor of Statistics, Duke University, USA,

**A. P. Dawid**, Professor of Statistics, University College London, and

**Adrian F. M. Smith**, Principal, Queen Mary and Westfield College, London

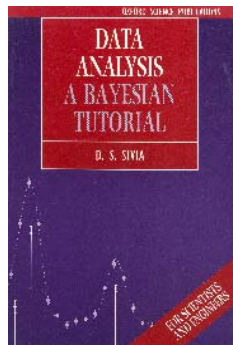
ISBN: 0-19-850485-3

### **Description**

The Valencia International Meetings on Bayesian Statistics, held every four years, provide the main forum for researchers in the area to come together to present and discuss frontier developments in the field. The resulting Proceedings provide a definitive, up-to-date overview, encompassing a wide range of theoretical and applied research. This sixth Proceedings is no exception, and will be an indispensable reference to all statisticians.

### **Contents/contributors**

- **I. INVITED PAPERS (With discussion)**
- Bayesian Inference on Latent Structure in Time Series
- Information Theory and the Risk of Bayes Procedures
- Quantifying Surprise in the Data and Model Verification
- Bayesian Methods in the Atmospheric Sciences
- Nested Hypothesis Testing: The Bayesian Reference Criterion
- Bayesian Models for Spatially Correlated Disease and Exposure Data
- Bayesian Model Averaging and Model Search Strategies
- Hierarchical Models for DNA Profiling Using Heterogeneous Databases
- On the Dangers of Modelling Through Continuous Distributions: A Bayesian Perspective
- Bayesian Methods in Signal and Image Processing
- Functional Magnetic Resonance Imaging and Spatio-Temporal Inference
- Simulation Methods for Model Criticism and Robustness Analysis
- Exact Sampling for Bayesian Inference: Towards General Purpose Algorithms
- Spatial Regression for Marked Point Processes
- Bayesian Model Choice: What and Why?
- Another Look at Conditionally Gaussian Markov Random Fields
- Simulated Sintering: Markov Chain Monte Carlo With Spaces of Varying Dimensions
- Markov Chain Monte Carlo Convergence Diagnostics: A Review
- Issues in Service Quality Modelling
- Simulation-Based Optimal Design
- Regression and Classification Using Gaussian Process Priors
- Uncertainty Analysis and other Inference Tools for Complex Computer Codes
- Decision Models in Screening for Breast Cancer
- Time-Varying Covariances: a Factor Stochastic Volatility Approach
- Old and Recent Results on the Relationship Between Predictive Inference and Statistical Modelling either in Nonparametric or Parametric Form
- Bayesian and Frequentist Approaches to Parametric Predictive Inference
- Inference-Robust Institutional Comparisons: A Case Study of School Examination Results
- Computationally Efficient Methods for Selecting Among Mixtures of Graphical Models
- Spatial Dependence and Errors-in-Variables in Environmental Epidemiology
- Robustifying Bayesian Procedures
- **II. CONTRIBUTED PAPERS**
- Pearson Type II Errors-in-Variables Models
- Bayesian Analysis of Animal Abundance Data via MCMC
- Convergence Assessment for Reversible Jump MCMC Simulations
- Fixed-Lag Smoothing using Sequential Importance Sampling
- The Nile Revisited: Changepoint Analysis with Autocorrelation
- Non-Stationary Spatial Modelling
- Bayesian Wavelet Analysis with a Model Complexity Prior
- Bayesian Analysis of Cepheid Variable Data
- A Bayesian Analysis of Stochastic Unit Root Models
- Optimal Design for Quantal Bioassay via Monte Carlo Methods
- Bayesian Estimation of a Location Parameter Using the Haar Basis
- On the Different Structures of Posterior Distributions with Respect to the Prior Distribution
- A Bayesian Proposal for the Analysis of Stationary and Nonstationary AR(1) Time Series
- Bayes Sequential Decision Theory in Clinical Trials
- Simplifying Complex Designs: Bayes Linear Experimental Design for Grouped Multivariate Exchangeable systems
- Extremes of Mixed Environmental Processes
- Graphical Diagnostics for the Bayes Linear Analysis of Hierarchical Linear Models with Applications to Educational Data



## Data Analysis - A Bayesian Tutorial

D. S. Sivia, Rutherford Appleton Laboratory and St Catherine's College, Oxford

- **Paperback:** 240 pages ; Dimensions (in inches): 0.45 x 9.14 x 6.28
- **Publisher:** Oxford University Press; (July 1, 1996)
- **ISBN:** 0198518897

### Description

"... this book takes the mystery out of statistics by providing a clear rationale for some of the most widely-used procedures." -**Zeitschrift fur Kristallographie**

Statistics lectures have often been viewed with trepidation by engineering and science students taking an ancillary course in this subject. Whereas there are many texts showing 'how' statistical methods are applied, few provide a clear explanation for non-statisticians of how the principles of data analysis can be based on probability theory. *Data Analysis: A Bayesian Tutorial* provides a text, putting emphasis as much on understanding 'why' and 'when' certain statistical procedures should be used as 'how'. This difference in approach makes the text ideal as a tutorial guide for senior undergraduates and research students, in science and engineering. After explaining the basic principles of Bayesian probability theory, their use is illustrated with a variety of examples ranging from elementary parameter estimation to image processing. With its central emphasis on a few fundamental rules, this book takes the mystery out of statistics by providing a clear rationale for some of the most widely-used procedures.

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## Approximating Integrals Via Monte Carlo and Deterministic Methods

by [Michael Evans](#), [Tim Swartz](#)

- **Hardcover:** 288 pages ; Dimensions (in inches): 0.82 x 9.50 x 6.44
- **Publisher:** Oxford University Press; 1st edition (May 15, 2000)
- **ISBN:** 0198502788

### Description

This book is designed to introduce graduate students and researchers to the primary methods useful for approximating integrals. The emphasis is on those methods that have been found to be of practical use, focusing on approximating higher-dimensional integrals with coverage of the lower-dimensional case as well. Included in the book are asymptotic techniques, multiple quadrature and quasi-random techniques and a complete development of Monte Carlo algorithms. For the Monte Carlo section important sampling methods, variance reduction techniques and the primary Markov Chain Monte Carlo algorithms are covered. This book brings these various techniques together for the first time, and provides an accessible textbook and reference for researchers in a wide variety of disciplines.