

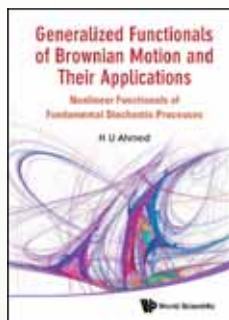
GENERALIZED FUNCTIONALS OF BROWNIAN MOTION AND THEIR APPLICATIONS

Nonlinear Functionals of Fundamental Stochastic Processes

by **N U Ahmed** (University of Ottawa, Canada)

This invaluable research monograph presents a unified and fascinating theory of generalized functionals of Brownian motion and other fundamental processes.

Contents: Background Materials; Regular Functionals of Brownian Motion, Fractional Process, and Levy Process; Generalized Functionals of the First Kind; Functional Analysis on Wiener Measure Space and Their Dual Spaces; L_2 -Based Generalized Functionals; L_p -Based Generalized Functionals; $W^{s,p}$ -Based Generalized Functionals and Their Extensions; Malliavin Calculus and Applications Thereof; Evolution Equations on Fock Spaces.



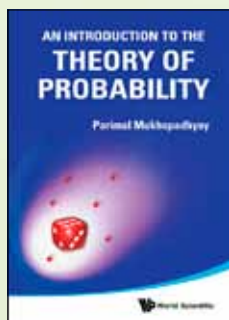
316pp **Nov 2011**
978-981-4366-36-6 **US\$88** **£58**

AN INTRODUCTION TO THE THEORY OF PROBABILITY

by **Parimal Mukhopadhyay** (Indian Statistical Institute, India)

This book provides a systematic exposition of the theory in a setting which contains a balanced mixture of the classical approach and the modern day axiomatic approach.

Contents: Classical Theory and Its Limitations; Axiomatic Approach; Random Variables and Distributions; Expectation of a Discrete Random Variable; Properties of Probability Distributions in R^1 ; Generating Functions; Some Discrete Distributions in R^1 ; Some Continuous Distributions in R^1 ; Probability Distributions in R^n ; Probability Distribution of Functions of Random Variables; Convergence of a Sequence of Random Variables.



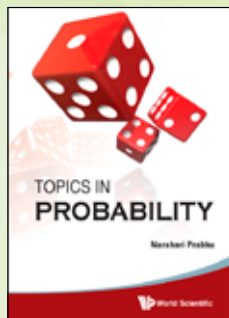
492pp **Sep 2011**
978-981-4313-42-1 **US\$74** **£49**

TOPICS IN PROBABILITY

by **Narahari Prabhu** (Cornell University, USA)

Recent research in probability has been concerned with applications such as data mining and finance models. Some aspects of the foundations of probability theory have receded into the background. Yet, these aspects are very important and have to be brought back into prominence.

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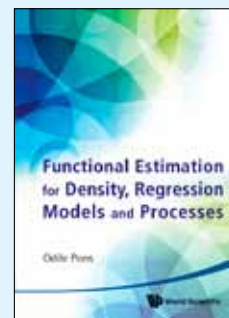
96pp **Jul 2011**
978-981-4335-47-8 **US\$39** **£26**

FUNCTIONAL ESTIMATION FOR DENSITY, REGRESSION MODELS AND PROCESSES

by **Odile Pons** (INRA, France)

This book presents a unified approach on nonparametric estimators for models of independent observations, jump processes and continuous processes. New estimators are defined and their limiting behavior is studied. From a practical point of view, the book expounds on the construction of estimators for functionals of processes and densities, and provides asymptotic expansions and optimality properties from smooth estimators.

Contents: Introduction; Kernel Estimator of a Density; Kernel Estimator of a Regression Function; Limits for the Varying Bandwidths Estimators; Nonparametric Estimation of Quantiles; Nonparametric Estimation of Intensities for Stochastic Processes; Estimation in Semi-Parametric Regression Models; Diffusion Processes; Applications to Time Series.



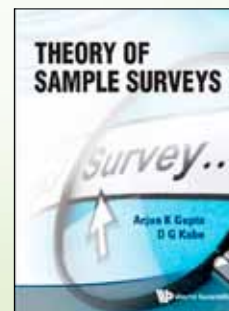
212pp **Mar 2011**
978-981-4343-73-2 **US\$75** **£49**

THEORY OF SAMPLE SURVEYS

by **Arjun K Gupta** (Bowling Green State University, USA) & **D G Kabe** (St Mary's University, Canada)

This book is the culmination of the lecture notes developed by the authors. The approach is theoretical in the sense that it gives mathematical proofs of the results in sample surveys. Intended as a textbook for a one-semester course for undergraduate seniors or first-year graduate students, a prerequisite basic knowledge of algebra, calculus, and statistical theory is required to master the techniques described in this book.

Contents: Simple Random Sampling; Sampling with Varying Probabilities of Selection; Stratified Sampling; Systematic Sampling; Ratio Method of Estimation; Regression Method of Estimation; Cluster Sampling; Sub-Sampling Two-Stage and Three-Stage Sampling; Double Sampling; Non-Sampling Errors.



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Professor Emeritus

School of Electrical Engineering and Computer Science
University of Central Florida and Kennedy Space Center,
Florida, USA



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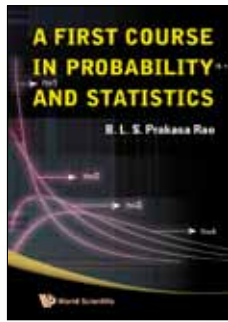
by **B L S Prakasa Rao** (University of Hyderabad, India)

"This book is a concise and very good first course in probability and statistics by an expert who has taught the subject for many years in India and the United States of America."

Mathematical Reviews

This book contains a large number of solved examples and chapter-end exercises designed to reinforce the probability theory and emphasize statistical applications.

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332pp	Dec 2008	
978-981-283-653-3	US\$81	£45
978-981-283-654-0(pbk)	US\$48	£26

Lecture Notes Series, Institute for Mathematical Sciences, National University of Singapore

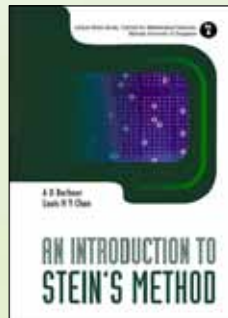
AN INTRODUCTION TO STEIN'S METHOD

by **A D Barbour** (University of Zürich, Switzerland) & **Louis H Y Chen** (National University of Singapore, Singapore)

"All the lectures have been given by eminent experts working in the area of Stein's method and provide details and unsolved problems along with a list of very useful references. These lectures will be very valuable for both experts and researchers wishing to explore the powerful approximation method proposed by Charles Stein."

Mathematical Reviews

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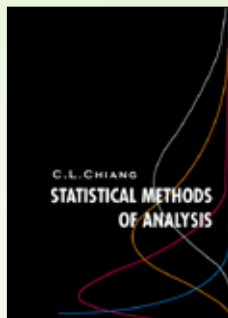
240pp	Apr 2005	
978-981-256-280-7	US\$108	£72
978-981-256-330-9(pbk)	US\$55	£37

STATISTICAL METHODS OF ANALYSIS

by **Chin Long Chiang** (University of California, Berkeley, USA)

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Acta Scientiarum Mathematicarum



656pp	Oct 2003	
978-981-238-309-9	US\$125	£83
978-981-238-310-5(pbk)	US\$66	£43

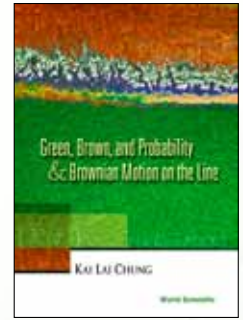
GREEN, BROWN, AND PROBABILITY AND BROWNIAN MOTION ON THE LINE

by **Kai Lai Chung** (Stanford University, USA)

"It makes excellent reading for anyone interested in the interplay between analysis and probability theory. The various historical quotes and references are interesting for their own sake."

Journal of the American Statistical Association

Contents: *Green, Brown, and Probability:* Green's Ideas; Probability and Potential; Process; Random Time; Markov Property; Brownian Construct; The Trouble with Boundary; Return to Green; Strong Markov Property; Transience; Last but Not Least; Least Energy; *Brownian Motion on the Line:* Exit and Return; Time and Place; A General Method; Drift; Dirichlet and Poisson Problems; Feynman-Kac Functionals; *Stopped Feynman-Kac Functional:* Introduction; The Results; The Connections.



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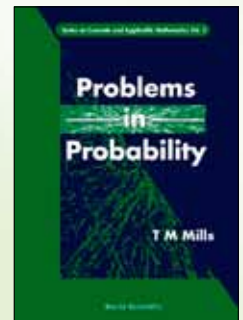
PROBLEMS IN PROBABILITY

by **T M Mills** (La Trobe University, Australia)

"The solutions are detailed and complete rather than merely answers ... The bibliography, containing about 70 references, includes many well-known and standard texts and several important historical works ... Problems in Probability is a welcome and affordable addition to the toolbox of resources for instructors of undergraduate probability."

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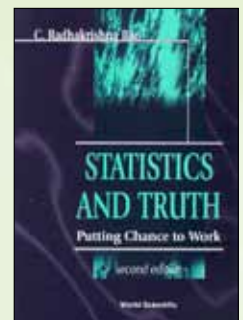
by **C Radhakrishna Rao** (Pennsylvania State University)

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212pp	Aug 1997	
978-981-02-3111-8	US\$59	£39

