Probabiltés et processus stochastiques

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Christoph BANDT, Siegfried GRAPH, Martina ZÄHLE, (Editors). — **Fractal geometry and stochastics II.** — Progress in probability, vol. 46. — Un vol. relié, 16×24, de X, 292 p. — ISBN 3-7643-6215-4. — Prix: SFr. 98.00. — Birkhäuser, Basel, 2000.

The combination of fractal geometry and stochastic methods can be used to create convincing models in many different areas of science such as biology, chemistry, computer science, mathematics and physics. The present book deals with the mathematical theory needed for this purpose. The book is addressed to mathematicians and scientists who are interested in any of the following topics: fractal dimensions, fractal measures and multifractals, self-similar and self-affine fractals, random fractals, stable processes, ergodic theory and dynamical systems, harmonic analysis and stochastic processes on fractals.

L.C.G. ROGERS, David WILLIAMS. — **Diffusions, Markov processes, and martingales. Vol. 1: Foundations.** — Second edition. — Cambridge Mathematical Library. — Un vol. broché, 15×23, de XVII, 385 p. — ISBN 0-521-77594-9. — Prix: £22.95. — Cambridge University Press, Cambridge, 2000.

The authors' aim is not to present the subject of Brownian motion as a dry part of mathematical analysis, but to convey its real meaning and fascination. The opening, heuristic chapter does just this, and it is followed by a comprehensive and self-contained account of the foundations of the theory of stochastic processes. Chapter III is a lively and readable treatment of the theory of stochastic processes.

L.C.G. ROGERS, David WILLIAMS. — **Diffusions, Markov processes and martingales. Vol. 2: Itô calculus.** — Cambridge mathematical library. — 2nd edition. — Un vol. broché, 15×23, de XIII, 480 p. — ISBN 0-521-77593-0. — Prix: £24.95. — Cambridge University Press, Cambridge, 2000.

Now available in paperback, this book has been prepared with readers' needs in mind, remaining a systematic treatment of the subject whilst retaining its vitality. The second volume follows on from the first, concentrating on stochastic integrals, stochastic differential equations, excursion theory, and the general theory of processes. Much effort has gone into making these subjects as accessible as possible by providing many concrete examples that illustrate techniques of calculation, and by treating all topics from the ground up, starting from simple cases. Many of the examples and proofs are new; some important calculational techniques appeared for the first time in this book. Together with Volume 1: *Foundations*, this book helps equip graduate students for research into a subject of great intrinsic interest and wide application in physics, biology, engineering, finance and computer science.

Statistique

Sampritt CHATTERJEE, Ali S. HADI, Bertram PRICE. — **Regression analysis by example.** — Wiley series in probability and statistics. Texts and references section. — Third edition. — Un vol. relié, 16×24, de XI, 359 p. — ISBN 0-471-31946-5. — Prix: £51.95. — John Wiley, New York, 2000.

This book explains the principles underlying exploratory data analysis, emphasizing data analysis rather than statistical theory. This is not just another edition of the book: it is a major rewriting and reorganization of the previous edition. The new edition is expanded and updated to reflect recent advances in the field, offering in-depth treatment of diagnostic plots, time series regression, multicollinearity, and logic regression. Suitable for anyone with an understanding of