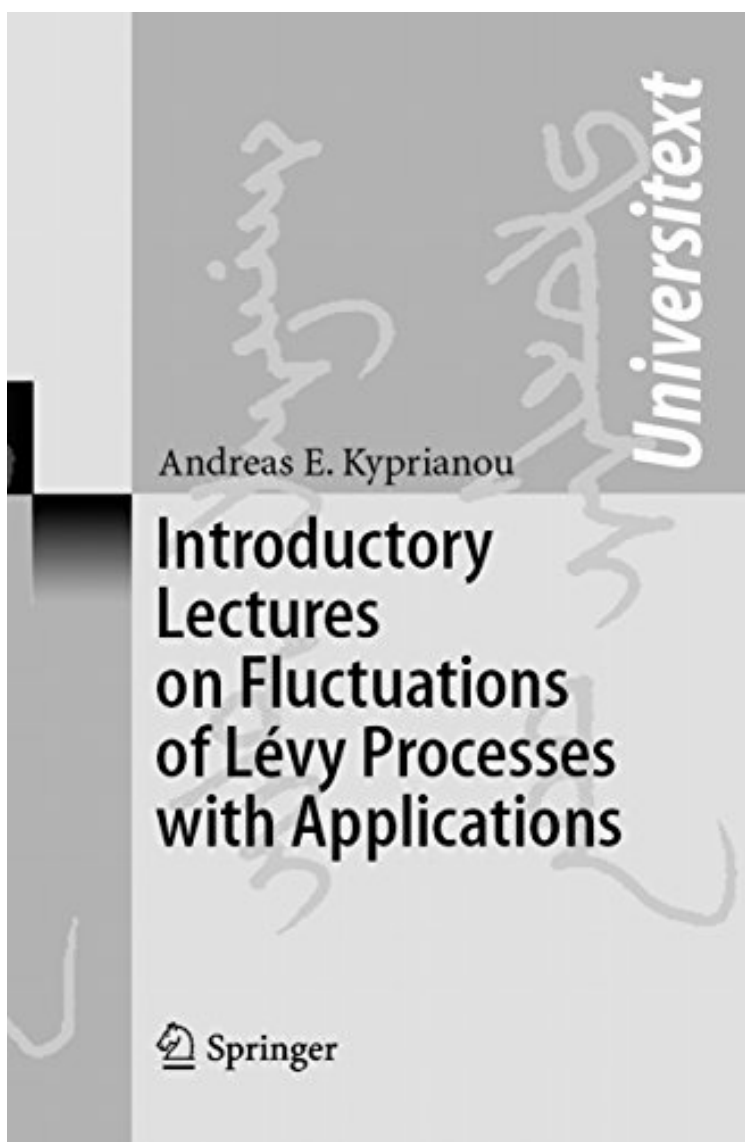


(Online library) Introductory Lectures on Fluctuations of Lévy Processes with Applications
(Universitext)

Introductory Lectures on Fluctuations of Lévy Processes with Applications (Universitext)

Andreas Kyprianou

*audiobook / *ebooks / Download PDF / ePub / DOC*



[Download](#)

[Read Online](#)

#3723179 in eBooks 2006-12-18 2006-12-18 File Name: B00FC3C9QI | File size: 25.Mb

Andreas Kyprianou : Introductory Lectures on Fluctuations of Lévy Processes with Applications (Universitext) before purchasing it in order to gauge whether or not it would be worth my time, and all praised Introductory Lectures on Fluctuations of Lévy Processes with Applications (Universitext):

This textbook forms the basis of a graduate course on the theory and applications of Lévy processes, from the perspective of their path fluctuations. The book aims to be mathematically rigorous while still providing an intuitive feel for underlying principles. The results and applications often focus on the case of Lévy processes with jumps in only one direction, for which recent theoretical advances have yielded a higher degree of mathematical transparency and explicitness.

From the reviews: "This textbook is an introduction to fine path-properties of real Lévy processes with a view towards applications. It is written in a more pedagogical tone, with many exercises for which answers are given. This monograph is mainly intended as a textbook for graduate students, as the author says in the introduction, but it should also be useful for researchers wishing to become better acquainted with the fluctuation theory of Lévy processes, and its applications." (Thomas D. Simon, *Mathematical Surveys*, Issue 2008 a) From the Back Cover Lévy processes are the natural continuous-time analogue of random walks and form a rich class of stochastic processes around which a robust mathematical theory exists. Their mathematical significance is justified by their application in many areas of classical and modern stochastic models including storage models, renewal processes, insurance risk models, optimal stopping problems, mathematical finance and continuous-state branching processes. This text book forms the basis of a graduate course on the theory and applications of Lévy processes, from the perspective of their path fluctuations. Central to the presentation are decompositions of the paths of Lévy processes in terms of their local maxima and an understanding of their short- and long-term behaviour. The book aims to be mathematically rigorous while still providing an intuitive feel for underlying principles. The results and applications often focus on the case of Lévy processes with jumps in only one direction, for which recent theoretical advances have yielded a higher degree of mathematical transparency and explicitness. Each chapter has a comprehensive set of exercises with complete solutions. About the Author Andreas Kyprianou has a degree in Mathematics from the University of Oxford and a Ph.D. in Probability Theory from The University of Sheffield. He is currently a Professor of Probability at the University of Bath, having held academic positions in Mathematics and Statistics Departments at the London School of Economics, Edinburgh University, Utrecht University and Heriot-Watt University, besides working for nearly two years as a research mathematician in the oil industry. His research is focused on pure and applied probability.