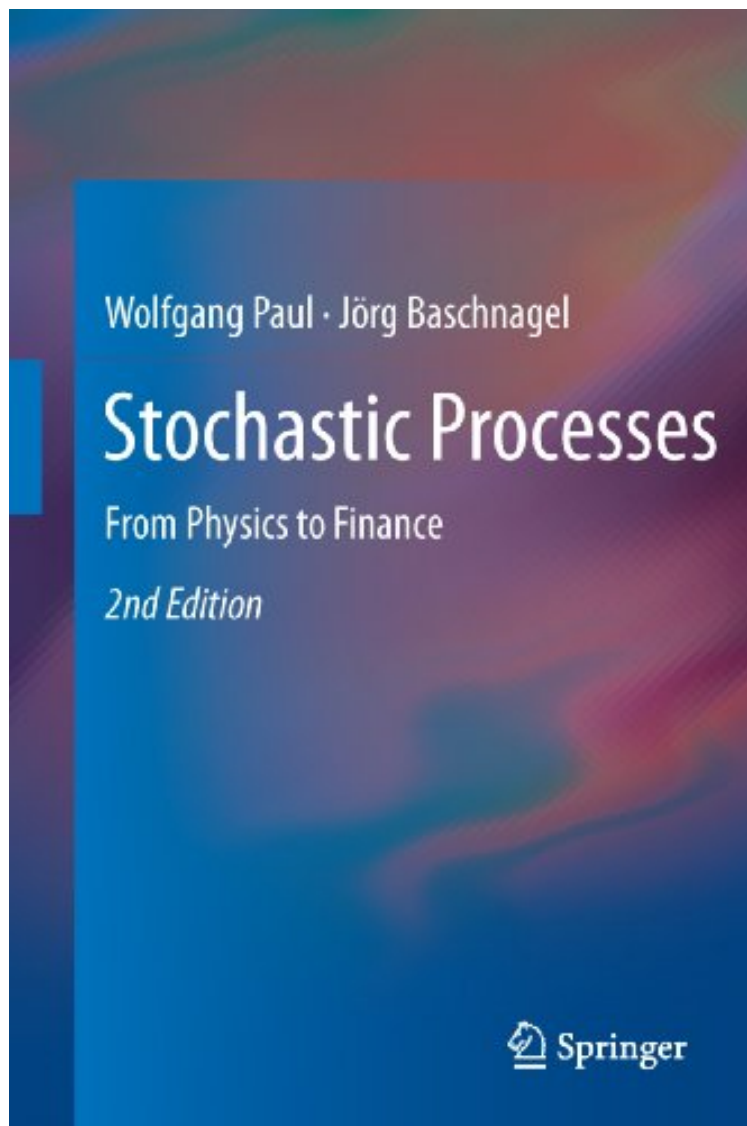


(Download ebook) Stochastic Processes: From Physics to Finance

Stochastic Processes: From Physics to Finance

Wolfgang Paul, Jörg Baschnagel
DOC | *audiobook | ebooks | Download PDF | ePub



#2726383 in eBooks 2013-07-11 2013-07-11 File Name: B00E3BRAJG | File size: 67.Mb

Wolfgang Paul, Jörg Baschnagel : Stochastic Processes: From Physics to Finance before purchasing it in order to gauge whether or not it would be worth my time, and all praised Stochastic Processes: From Physics to Finance:

0 of 3 people found the following review helpful. Five Stars By Mathematical foundations Pahl The book is in pristine condition, thanks a lot

This book introduces the theory of stochastic processes with applications taken from physics and finance.

Fundamental concepts like the random walk or Brownian motion but also Levy-stable distributions are discussed. Applications are selected to show the interdisciplinary character of the concepts and methods. In the second edition of the book a discussion of extreme events ranging from their mathematical definition to their importance for financial crashes was included. The exposition of basic notions of probability theory and the Brownian motion problem as well as the relation between conservative diffusion processes and quantum mechanics is expanded. The second edition also enlarges the treatment of financial markets. Beyond a presentation of geometric Brownian motion and the Black-Scholes approach to option pricing as well as the econophysics analysis of the stylized facts of financial markets, an introduction to agent based modeling approaches is given.

From the book reviews: "The authors, both physicists, have revised their successful book first published in 2000. ... the stochastic processes are presented clearly in mathematical language, e.g., with measure theoretical formalism, which makes the book readable for mathematicians. Its value for mathematicians, especially those who are already familiar with the basic ideas of mathematical finance, is in the many examples from physics, that provide a broad overview of the basic models and ideas of statistical physics." (Peter E. Kloeden, SIAM , Vol. 56 (4), December, 2014)

From the Back Cover This book introduces the theory of stochastic processes with applications taken from physics and finance. Fundamental concepts like the random walk or Brownian motion but also Levy-stable distributions are discussed. Applications are selected to show the interdisciplinary character of the concepts and methods. In the second edition of the book a discussion of extreme events ranging from their mathematical definition to their importance for financial crashes was included. The exposition of basic notions of probability theory and the Brownian motion problem as well as the relation between conservative diffusion processes and quantum mechanics is expanded. The second edition also enlarges the treatment of financial markets. Beyond a presentation of geometric Brownian motion and the Black-Scholes approach to option pricing as well as the econophysics analysis of the stylized facts of financial markets, an introduction to agent based modeling approaches is given.