Introduction to Probability and Stochastic Processes with Applications

Liliana Blanco Castantilde;eda, Viswanathan Arunachalam, Selvamuthu Dharmaraja
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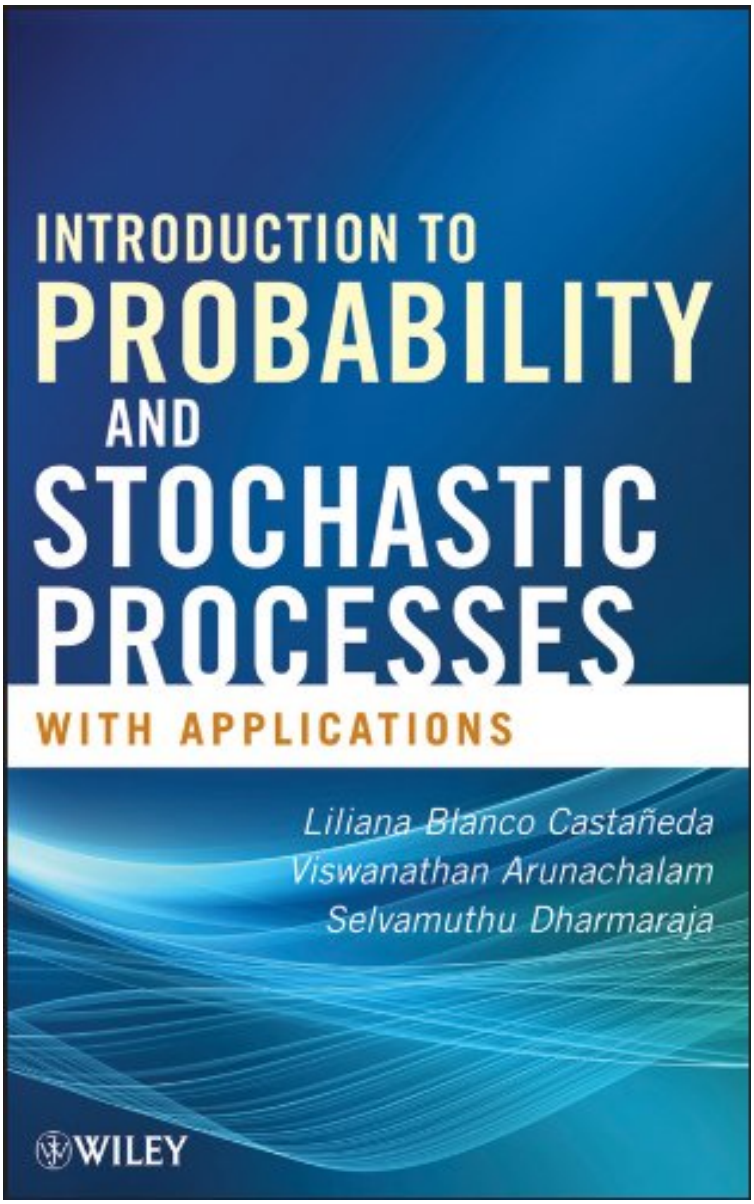

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Liliana Blanco Castantilde;eda, Viswanathan Arunachalam, Selvamuthu Dharmaraja : Introduction to Probability and Stochastic Processes with Applications before purchasing it in order to gage whether or not it would be worth my time, and all praised Introduction to Probability and Stochastic Processes with Applications:

An easily accessible, real-world approach to probability and stochastic processes Introduction to Probability and Stochastic Processes with Applications presents a clear, easy-to-understand treatment of probability and stochastic processes, providing readers with a solid foundation they can build upon throughout their careers. With an emphasis on applications in engineering, applied sciences, business and finance, statistics, mathematics, and operations research, the book features numerous real-world examples that illustrate how random phenomena occur in nature and how to use probabilistic techniques to accurately model these phenomena. The authors discuss a broad range of topics, from the basic concepts of probability to advanced topics for further study, including Itocirc; integrals, martingales, and sigma algebras. Additional topical coverage includes: Distributions of discrete and continuous random variables frequently used in applications Random vectors, conditional probability, expectation, and multivariate normal distributions The laws of large numbers, limit theorems, and convergence of sequences of random variables Stochastic processes and related applications, particularly in queueing systems Financial mathematics, including pricing methods such as risk-neutral valuation and the Black-Scholes formula Extensive appendices containing a review of the requisite mathematics and tables of standard distributions for use in applications are provided, and plentiful exercises, problems, and solutions are found throughout. Also, a related website features additional exercises with solutions and supplementary material for classroom use. Introduction to Probability and Stochastic Processes with Applications is an ideal book for probability courses at the upper-undergraduate level. The book is also a valuable reference for researchers and practitioners in the fields of engineering, operations research, and computer science who conduct data analysis to make decisions in their everyday work.

ldquo;The choice of material and the presentation make this book an excellent first introduction into probability theory and stochastic processes from upper undergraduate level onwards in all the areas mentioned above. It may also serve math students at the very initial stages of their studies as a stepping stone to get a sound grasp of some basic concepts of probability.rdquo; nbsp;(Contemporary Physics, 13 August 2012)nbsp;nbsp;From the Back CoverAn easily accessible, real-world approach to probability and stochastic processesIntroduction to Probability and Stochastic Processes with Applications presents a clear, easy-to-understand treatment of probability and stochastic processes, providing readers with a solid foundation they can build upon throughout their careers. With an emphasis on applications in engineering, applied sciences, business and finance, statistics, mathematics, and operations research, the book features numerous real-world examples that illustrate how random phenomena occur in nature and how to use probabilistic techniques to accurately model these phenomena.The authors discuss a broad range of topics, from the basic concepts of probability to advanced topics for further study, including Itocirc; integrals, martingales, and sigma algebras. Additional topical coverage includes:Distributions of discrete and continuous random variables frequently used in applicationsRandom vectors, conditional probability, expectation, and multivariate normal distributionsThe laws of large numbers, limit theorems, and convergence of sequences of random variablesStochastic processes and related applications, particularly in queueing systemsFinancial mathematics, including pricing methods such as risk-neutral valuation and the Black-Scholes formulaExtensive appendices containing a review of the requisite mathematics and tables of standard distributions for use in applications are provided, and plentiful exercises, problems, and solutions are found throughout. Also, a related website features additional exercises with solutions and supplementary material for classroom use. Introduction to Probability and Stochastic Processes with Applications is an ideal book for probability courses at the upper-undergraduate level. The book is also a valuable reference for researchers and practitioners in the fields of engineering, operations research, and computer science who conduct data analysis to make decisions in their everyday work.About the AuthorLILIANA BLANCO CASTANtilde;EDA, DrRerNat, is Associate Professor in the Department of Statistics at the National University of Colombia and the author of several journal articles and three books on basic and advanced probability.VISWANATHAN ARUNACHALAM, PhD, is Associate Professor in the Department of Mathematics at the Universidad de los Andes, Colombia. He has published numerous journal articles in areas such as optimization, stochastic processes, and the mathematics of financial derivatives.SELVAMUTHU DHARMARAJA, PhD, is Associate Professor in the Department of Mathematics and the Bharti School of Telecommunication Technology and Management at the Indian Institute of Technology Delhi. The author of several journal articles, he is Associate Editor for the International Journal of Communication Systems.