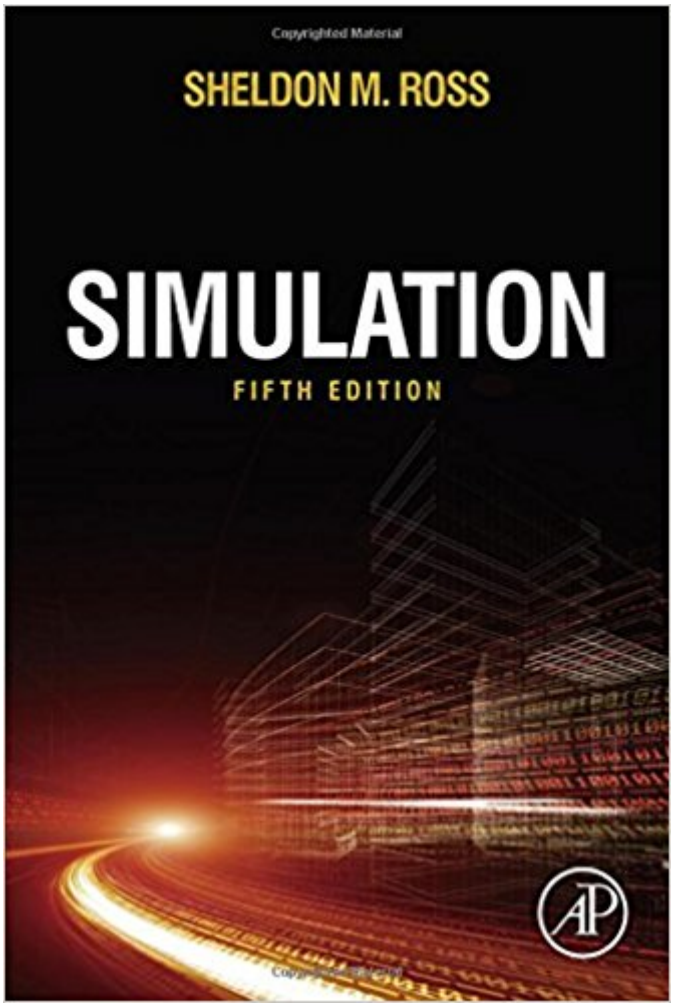
Simulation, Fifth Edition



Synopsis

The 5th edition of RossÃ¢â ¬â„¢s Simulation continues to introduce aspiring and practicing actuaries, engineers, computer scientists and others to the practical aspects of constructing computerized simulation studies to analyze and interpret real phenomena. Readers learn to apply results of these analyses to problems in a wide variety of fields to obtain effective, accurate solutions and make predictions about future outcomes. This latest edition features all-new material on variance reduction, including control variables and their use in estimating the expected return at blackjack and their relation to regression analysis. Additionally, the 5th edition expands on Markov chain monte carlo methods, and offers unique information on the alias method for generating discrete random variables. By explaining how a computer can be used to generate random numbers and how to use these random numbers to generate the behavior of a stochastic model over time, RossÃ¢â ¬â„¢s Simulation, 5th edition presents the statistics needed to analyze simulated data as well as that needed for validating the simulation model.Additional material on variance reduction, including control variables and their use in estimating the expected return at blackjack and their relation to regression analysisAdditional material and examples on Markov chain Monte Carlo methodsUnique material on the alias method for generating discrete random variablesAdditional material on generating multivariate normal vectors

Book Information

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Customer Reviews

"I have always liked RossÃ¢â ¬â„¢ books, as he is simultaneously mathematically rigorous and

very interested in applications. The biggest strength I see is the rare combination of mathematical rigor and illustration of how the mathematical methodologies are applied in practice. Books with practical perspective are rarely this rigourous and mathematically detailed. I also like the variety of exercises, which are quite challenging and demanding excellence from students." --Prof. Krzysztof Ostaszewski, Illinois State University

Sheldon M. Ross is a professor in the Department of Industrial Engineering and Operations Research at the University of Southern California. He received his Ph.D. in statistics at Stanford University in 1968. He has published many technical articles and textbooks in the areas of statistics and applied probability. Among his texts are A First Course in Probability, Introduction to Probability Models, Stochastic Processes, and Introductory Statistics. Professor Ross is the founding and continuing editor of the journal Probability in the Engineering and Informational Sciences. He is a Fellow of the Institute of Mathematical Statistics, and a recipient of the Humboldt US Senior Scientist Award.

probably one of the best Monte Carlo simulation book I have read. Use this along with Monte Carlo methkds in financial engineering to get the most out of this domain area

Excellent!

According to the books I have consulted by S. M. Ross, I consider him tobe a tremendous author, with this book being my absolute favourite. Itis inspirational, clear, creative and (most of all) fun to read.Starting off from the very basics regarding probability, random numbersand generation of random variables, Professor Ross steadily guides thereader through, for instance, simulation with respect to some queueingsystems, validation techniques (e.g. goodness-of-fit tests;Kolmogorov-Smirnov tests), the standard MCMC-methods and various variancereduction techniques. The latter chapter is the one that I found mostenlightening including, for instance, a certainly rewarding section onimportance sampling (weighted simulation). Throughout, a lot ofwell-chosen examples enhance students/readers understanding and interestof the subject.One might note that this is by no means the most advanced or complete bookon Monte Carlo simulation out there, see e.g.Monte Carlo Statistical Methods (Springer Texts in Statistics)orStochastic Simulation: Algorithms and Analysis (Stochastic Modelling and Applied Probability),rather it evolves at an intermediate level covering a few more advancedconcepts as, for example, coupling from the

past. But, having this inmind, this is the book to get. Pure concentrated fun (xiii+274 pages).Final note: In 2006 the fourth edition was launched.Ã Â]

It is was excactly what I was in need of. This book provides you with the essential knowledge for simulation studies.

The cover and some of the contact pages on the inside of the book aren't written in english, but I received the correct version and the contents of the book are in english. Four stars because I can still use it without any inconvenience.

My prof in grad school used this as the text to go along with an introductory R class to keep our costs down. This book is small but has so much in it. Good book for learning the theory behind coding math, but it's not a book on programming.

Arrived in good condition.

This is an excelent textbook explaining what simulation means and how to deepen your knowalge. You have to be a good programmer in order to use this book (and simulation generally)and the author should have added an andex for such a language and how its connection with simualtion (C or C++) although my experience would elect MATLAB as prefernce!! This text does not requir any prior experience regarding simulatin although taking a course in statistics and probability would be advantageous!!

Simulation (4th Edition) Introduction to Scientific Programming and Simulation Using R, Second Edition (Chapman & Hall/CRC The R Series) Understanding Molecular Simulation, Second Edition: From Algorithms to Applications (Computational Science Series, Vol 1) Introduction to Computational Science: Modeling and Simulation for the Sciences, Second Edition Discrete-Event System Simulation (5th Edition) The Death of Drawing: Architecture in the Age of Simulation Modeling Behavior in Complex Public Health Systems: Simulation and Games for Action and Evaluation Defining Excellence in Simulation Programs Lost at Sea, Instrument (Simulation Manual) Manhattan GMAT Test Simulation Booklet w/ Marker Derivatives Analytics with Python: Data Analysis, Models, Simulation, Calibration and Hedging (The Wiley Finance Series)