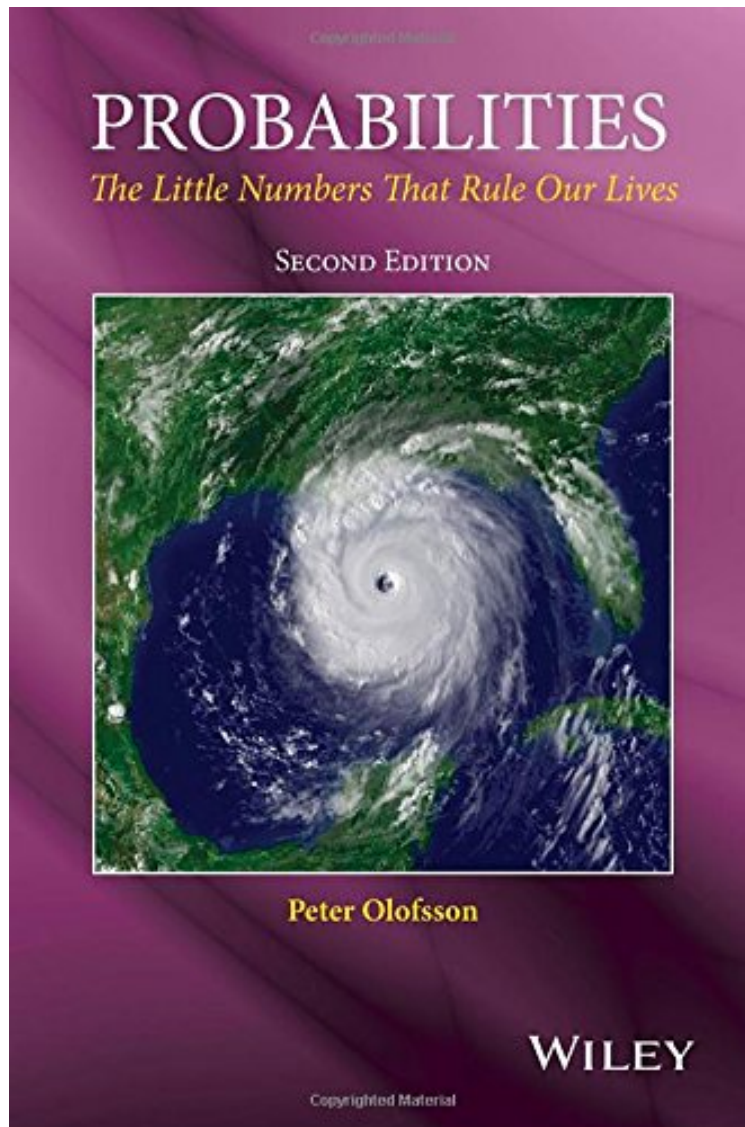


(Get free) Probabilities: The Little Numbers That Rule Our Lives

## Probabilities: The Little Numbers That Rule Our Lives

*Peter Olofsson*

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**Peter Olofsson : Probabilities: The Little Numbers That Rule Our Lives** before purchasing it in order to gage whether or not it would be worth my time, and all praised Probabilities: The Little Numbers That Rule Our Lives:

0 of 0 people found the following review helpful. A very unique and valuable work.By Gregory V. BardI have yet to read the book cover to cover, but from my initial skimming this book is extremely unusual in the following ways. First, it is very clear. Second, the author's style is extremely engaging and even humorous. Third, the author is pointing out properties that are very interesting, relevant, and applicable, but which the standard textbooks entirely omit. This book takes probability---a topic that is difficult for nearly every student---and it makes it much more comprehensible

and accessible. There are lots of applications as well. 0 of 0 people found the following review helpful. Five Stars By Mark D. Halx A great book, even for the non-math-literate. Those little numbers matter!! 1 of 1 people found the following review helpful. Crystal Clear Explanations and Engaging Style Make this a Must-Read By AYABANSI cannot say enough good things about this book and would give it more than five stars if I could. This book is a must-read for anyone even remotely interested in/connected to probability, or, for that matter, anyone who appreciates good writing. The authors naturally engaging style and broad scope makes this book a real treat. Moreover, each chapter is so full of interesting ideas that I felt like I learned more from this book than many much longer books. The author has a real gift for making complex concepts seem perfectly natural. Maybe this is due to my previous physics background, but I also absolutely loved how Olofsson uses extreme limiting situations to illuminate key ideas! For convenience, I included my review of the first edition below with some updates. Once I started Probabilities, I found I did not want to go back to Ross (the required book for my probability class at the time) even though Ross is pretty decent. Many people (including some professional mathematicians I know) do not like probability because it is often counterintuitive. However, Olofsson uses this to his advantage, highlighting the counterintuitive results as something that makes the subject so fascinating. In fact, Probabilities has a chapter called Surprising Probabilities: When Intuition Struggles. Most importantly, Probabilities uses these counterintuitive results to help develop insight. The book often starts off with the intuitive thinking for a problem and then uses more in-depth analysis to show why it is in fact incorrect. And it makes this surprisingly fun! As far as learning outcomes are concerned, I would say that the way Probabilities extracts insight from examples and extrapolates them to more general ideas is one of the biggest advantages it has over Ross. Whereas Ross presents a large number of miscellaneous standalone examples, Olofsson successfully builds up examples and clearly pinpoints the key to approaching them. Here's an illustrative excerpt from Probabilities:\*\*\*Just like in the case of the children, there is a difference between the two pieces of information. And just like in the case of the children, there is more information in the case where something specific, in this case the ace of spades, has been identified. In the first case, we are asking for the probability of more than one ace given at least one ace; in the second, given one particular ace.\*\*\*As another example, I was really grateful to Olofsson for pointing out that a class of problems can be easily solved through the recursive use of the law of total probability. Of course, Ross uses exactly this principle in a number of examples, but I don't believe he ever explicitly gives it a name. There is also no practical way to go through all of the examples included in Ross and skipping a key example may result in missing an important concept. I was impressed by the fact that Probabilities managed to cover the key examples without leaving out anything major and without having anything seem like it was inserted just for the sake of completeness. Further, while Ross provides formal proofs of key results, Olofsson helps develop intuition into understanding why they actually hold. Finally, Olofsson anticipates challenges and potential misunderstandings and addresses them head-on. For instance, the section on random walks starts off with a fair game where two players flip coins, with heads meaning Player A wins and tails meaning Player B wins. It includes:\*\*\*As the game is fair, it seems reasonable to expect each player to be in the lead about half the time, with the lead passing from one to the other every now and then. Perhaps the lead changes, what, 20 times or so? Let me puncture these beliefs immediately. The most likely individual scenario is that the lead never changes and that one player is ahead all the time!\*\*\*Probabilities is written in an informal yet sophisticated style (it does include equations). The book manages to sound natural without sacrificing clarity. It gets straight to the point without giving up a certain creativity and imagination in style. Typically, when I'm reading a book like this, I find that there are at least a few passages that I have to re-read because they are not 100% clear the first time. Yet I cannot remember having to do this even once in this book. It helped that the author is very articulate and could draw on a wide range of knowledge outside of coins and balls in urns. I personally really appreciated the multiple references to other books on the topic. Instead of listing them in ABC order in a Bibliography at the end, Olofsson intersperses them naturally throughout the text. As an added side-bonus (for me anyway), the book included more references to Sweden than a typical book written by a US-based author, and I enjoyed these Sweden-centric details. One example was a reference to a story by Swedish humorist Tage Danielsson featuring Mr. Sven-Erik Average, which I looked up. Additionally, the generous references to pop-culture and real world events helped add to the vitality of the text. However, they weren't just randomly thrown in but helped illuminate the ideas being discussed. Due to the writing style and clarity, I preferred this book to Warren Weavers classic Lady Luck (still worth reading) Lady Luck: The Theory of Probability (Dover Books on Mathematics). I already owned the 1st Edition Probabilities: The Little Numbers That Rule Our Lives when I came across this 2nd Edition, but I was curious as to what the new additions were to the 2nd Edition and started browsing. The book is such a smooth read that I ended up reading it again from cover to cover. As for the updates to the 2nd edition which prompted me to come back to this wonderful book, I noticed that the following sections were added: -Shuttlecocks and Spaghetti Westerns (p34)-Strategy (p75)-Ornithology (p122)-The Price is Right (Maybe) (p134)-Blood, Sweat, and Theory (p137)-Exponential Growth toward Extinction (p149)-Mean, Median, Mode (p165) The additions were timely and of the same high caliber as the first edition. It was nice to see call options make it in (The Price is Right (Maybe)) and also very refreshing to see the author acknowledge the limitations of his expertise in certain areas, like applications to finance (the field I currently work in). And I got a real kick out of the title of Ornithology, the contents of which I will not give away :).

Praise for the First Edition If there is anything you want to know, or remind yourself, about probabilities, then look no further than this comprehensive, yet wittily written and enjoyable, compendium of how to apply probability calculations in real-world situations. - Keith Devlin, Stanford University, National Public Radios Math Guy and author of *The Math Gene* and *The Unfinished Game* From probable improbabilities to regular irregularities, *Probabilities: The Little Numbers That Rule Our Lives, Second Edition* investigates the often surprising effects of risk and chance in our lives. Featuring a timely update, the Second Edition continues to be the go-to guidebook for an entertaining presentation on the mathematics of chance and uncertainty. The new edition develops the fundamental mathematics of probability in a unique, clear, and informal way so readers with various levels of experience with probability can understand the little numbers found in everyday life. Illustrating the concepts of probability through relevant and engaging real-world applications, the Second Edition features numerous examples on weather forecasts, DNA evidence, games and gambling, and medical testing. The revised edition also includes: The application of probability in finance, such as option pricing The introduction of branching processes and the extinction of family names An extended discussion on opinion polls and Nate Silvers election predictions *Probabilities: The Little Numbers That Rule Our Lives, Second Edition* is an ideal reference for anyone who would like to obtain a better understanding of the mathematics of chance, as well as a useful supplementary textbook for students in any course dealing with probability.

The book is an ideal reference for anyone who would like to obtain a better understanding of the mathematics of chance, as well as a useful supplementary textbook for students in any course dealing with probability. (Zentralblatt MATH, 1 June 2015)From the Back CoverPraise for the First Edition If there is anything you want to know, or remind yourself, about probabilities, then look no further than this comprehensive, yet wittily written and enjoyable, compendium of how to apply probability calculations in real-world situations. - Keith Devlin, Stanford University, National Public Radios Math Guy and author of *The Math Gene* and *The Unfinished Game* From probable improbabilities to regular irregularities, *Probabilities: The Little Numbers That Rule Our Lives, Second Edition* investigates the often surprising effects of risk and chance in our lives. Featuring a timely update, the Second Edition continues to be the go-to guidebook for an entertaining presentation on the mathematics of chance and uncertainty. The new edition develops the fundamental mathematics of probability in a unique, clear, and informal way so readers with various levels of experience with probability can understand the little numbers found in everyday life. Illustrating the concepts of probability through relevant and engaging real-world applications, the Second Edition features numerous examples on weather forecasts, DNA evidence, games and gambling, and medical testing. The revised edition also includes: Applications of probability in finance, such as option pricing The introduction of branching processes and the extinction of family names An extended discussion on opinion polls and Nate Silvers election predictions *Probabilities: The Little Numbers That Rule Our Lives, Second Edition* is an ideal reference for anyone who would like to obtain a better understanding of the mathematics of chance, as well as a useful supplementary textbook for students in any course dealing with probability. Peter Olofsson, PhD, is Professor in the Department of Mathematics at Trinity University, USA. An active researcher in the field of applied probability and an experienced teacher, Dr. Olofsson is the author of *Probability, Statistics, and Stochastic Processes, Second Edition*, also published by Wiley. About the AuthorPeter Olofsson, PhD, is Professor in the Department of Mathematics at Trinity University, USA. An active researcher in the field of applied probability and an experienced teacher, Dr. Olofsson is the author of *Probability, Statistics, and Stochastic Processes, Second Edition*, also published by Wiley.