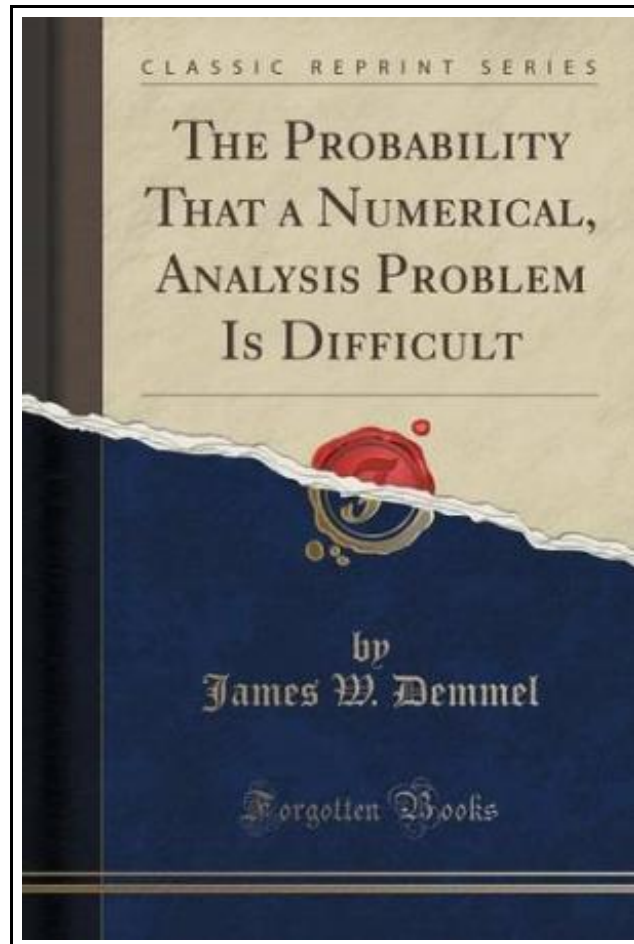


The Probability That a Numerical, Analysis Problem Is Difficult (Classic Reprint) (Paperback)



Filesize: 6.26 MB

Reviews

Basically no terms to explain. I have read and so i am certain that i will gonna go through once again once more in the future. I realized this ebook from my dad and i encouraged this book to discover.
(Forest Little)

THE PROBABILITY THAT A NUMERICAL, ANALYSIS PROBLEM IS DIFFICULT (CLASSIC REPRINT) (PAPERBACK)

[DOWNLOAD](#)

Forgotten Books, United States, 2015. Paperback. Book Condition: New. 229 x 152 mm. Language: English . Brand New Book ***** Print on Demand *****.Excerpt from The Probability That a Numerical, Analysis Problem Is Difficult Numerous problems in numerical analysis, including matrix inversion, eigenvalue calculations and polynomial zero finding, share the following property: the difficulty of solving a given problem is large when the distance from that problem to the nearest ill-posed one is small. For example, the closer a matrix is to the set of noninvertible matrices, the larger its condition number with respect to inversion. We show that the sets of ill-posed problems for matrix inversion, eigenproblems, and polynomial zero finding all have a common algebraic and geometric structure which lets us compute the probability distribution of the distance from a random problem to the set. From this probability distribution we derive, for example, the distribution of the condition number of a random matrix. We examine the relevance of this theory to the analysis and construction of numerical algorithms destined to be run in finite precision arithmetic. To investigate the probability that a numerical analysis problem is difficult, we need to do three things: 1) Choose a measure of difficulty, 2) Choose a probability distribution on the set of problems, 3) Compute the distribution of the measure of difficulty induced by the distribution on the set of problems. The measure of difficulty we shall use in this paper is the condition number, which measures the sensitivity of the solution to small changes in the problem. For the problems we consider in this paper (matrix inversion, polynomial zero finding and eigenvalue calculation), there are well known condition numbers in the literature of which we shall use slightly modified versions to be discussed more fully later. The condition number is an...



[Read The Probability That a Numerical, Analysis Problem Is Difficult \(Classic Reprint\) \(Paperback\) Online](#)



[Download PDF The Probability That a Numerical, Analysis Problem Is Difficult \(Classic Reprint\) \(Paperback\)](#)

Related PDFs



Crochet: Learn How to Make Money with Crochet and Create 10 Most Popular Crochet Patterns for Sale: (Learn to Read Crochet Patterns, Charts, and Graphs, Beginner s Crochet Guide with Pictures) (Paperback)

Createspace, United States, 2015. Paperback. Book Condition: New. 229 x 152 mm. Language: English . Brand New Book ***** Print on Demand *****.Getting Your FREE Bonus Download this book, read it to the end and...

[Read ePub »](#)



The Voyagers Series - Europe: A New Multi-Media Adventure Book 1 (Paperback)

Strength Through Communications, United States, 2011. Paperback. Book Condition: New. 229 x 152 mm. Language: English . Brand New Book ***** Print on Demand *****.The Voyagers Series is a new multi-media, multi-disciplinary approach to teaching...

[Read ePub »](#)



No Friends?: How to Make Friends Fast and Keep Them (Paperback)

Createspace, United States, 2014. Paperback. Book Condition: New. 229 x 152 mm. Language: English . Brand New Book ***** Print on Demand *****.Do You Have NO Friends ? Are you tired of not having any...

[Read ePub »](#)



History of the Town of Sutton Massachusetts from 1704 to 1876 (Paperback)

Createspace, United States, 2015. Paperback. Book Condition: New. annotated edition. 229 x 152 mm. Language: English . Brand New Book ***** Print on Demand *****.This version of the History of the Town of Sutton Massachusetts...

[Read ePub »](#)



Never Invite an Alligator to Lunch! (Paperback)

Lucky Me Publishing, LLC, United States, 2015. Paperback. Book Condition: New. 229 x 152 mm. Language: English . Brand New Book ***** Print on Demand *****. NEVER Invite an Alligator to Lunch! delivers a fun,...

[Read ePub »](#)