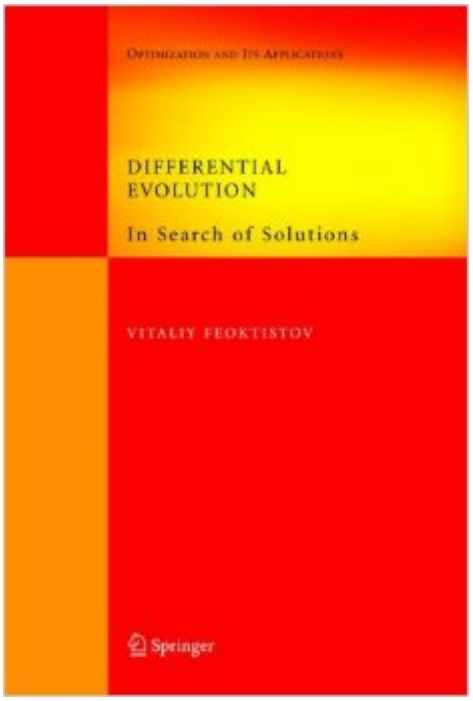
Differential Evolution: In Search Of Solutions (Springer Optimization And Its Applications)



Synopsis

Individuals and enterprises are looking for optimal solutions for the problems they face. Most problems can be expressed in mathematical terms, and so the methods of optimization render a significant aid. This book details the latest achievements in optimization. It offers comprehensive coverage on Differential Evolution, presenting revolutionary ideas in population-based optimization and shows the best known metaheuristics through the prism of Differential Evolution.

Book Information

Series: Springer Optimization and Its Applications (Book 5)

Hardcover: 196 pages

Publisher: Springer; 2006 edition (October 17, 2006)

Language: English

ISBN-10: 0387368957

ISBN-13: 978-0387368955

Product Dimensions: 6.1 x 0.5 x 9.2 inches

Shipping Weight: 1.1 pounds (View shipping rates and policies)

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Customer Reviews

I got this book after having read the one by Price, Storn and Lampinen, "Differential Evolution: A Practical Approach to Global Optimization". Even though the authors of that book were the originators of the Differential Evolution (DE) algorithm, their book nonetheless left me confused about a number of issues. So I tried this one by Vitaliy Feoktistov and am very glad I did.The author has an approach that’s unusually casual, enthusiastic and friendly for such a technical subject. One realizes very quickly that not only does he love the subject matter, but also that he has a certain empathy with the reader, in the sense that he seems to anticipate the issues about which the reader might be confused or in need of some extra explanation. When first explaining the classic DE algorithm, he does so by juxtaposing three perspectives: a mathematical notation, some pseudo-code, and then some minimal yet sufficient C code that implements it. In this way, the connection between the abstract and the concrete aspects of DE is easily grasped.Another strong

point of the book is his description of what he calls "Neoteric Differential Evolution", which is really just a perspective of DE in which the mutation, crossover and selection operations are clearly separated and the DE approach is shown in a very general way. This allows the reader to see that DE is not just an algorithm, but a kind of template into which different implementations of mutation, crossover and selection can be "plugged in".I am writing an application that uses DE, and before reading this book I had resigned myself to using a DE implementation I found on the 'net. Even though I didn't like this implementation, I lacked the confidence to write my own at that time. After reading Mr.

Applications in R (Springer Texts in Statistics) Digital Marketing Handbook: A Guide to Search Engine Optimization, Pay Per Click Marketing, Email Marketing, Social Media Marketing and Content Marketing SEO Simplified: Learn Search Engine Optimization Strategies and Principles for Beginners (The SEO Series)