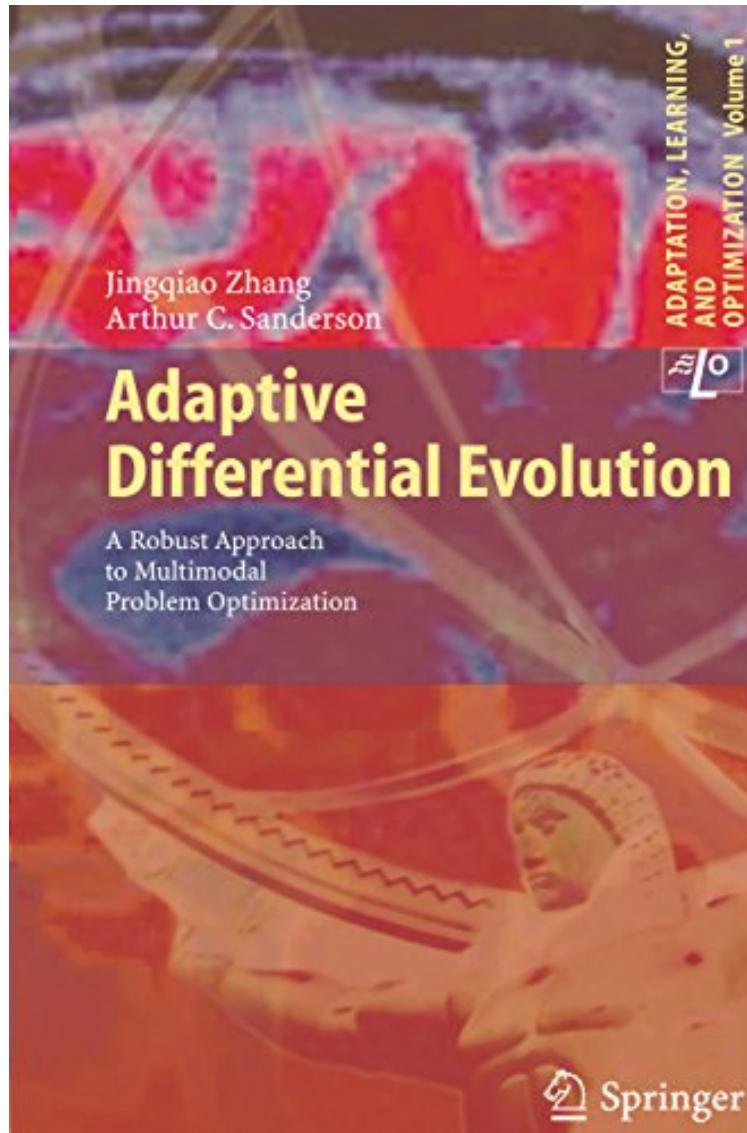


(Free) Adaptive Differential Evolution: A Robust Approach to Multimodal Problem Optimization: 1  
(Adaptation, Learning, and Optimization)

## Adaptive Differential Evolution: A Robust Approach to Multimodal Problem Optimization: 1 (Adaptation, Learning, and Optimization)

*Jingqiao Zhang, Arthur C. Sanderson*  
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**Jingqiao Zhang, Arthur C. Sanderson : Adaptive Differential Evolution: A Robust Approach to Multimodal Problem Optimization: 1 (Adaptation, Learning, and Optimization)** before purchasing it in order to gage whether or not it would be worth my time, and all praised Adaptive Differential Evolution: A Robust Approach to Multimodal Problem Optimization: 1 (Adaptation, Learning, and Optimization):

0 of 0 people found the following review helpful. good references  
By G. Orr  
Generally I would give this book high marks for its overview of algorithms (though it is not exhaustive), and its description of the JADE algorithm. The nomenclature could be clearer, and the figures are almost impossible to read. One needs a magnifying glass to see some of the captions. These figures were probably photocopied from the author's thesis, and they should have been generated with larger fonts to begin with, or enlarged when photocopied so they could be read in this book (figures get 1 \* - for readability). I think the author has some good ideas. However, the book concentrates a bit too heavily on the author's approach and lacks breadth. The mathematical proofs are not very useful to a practicing engineer, more the kind of formalism one would expect in a thesis. They should have been relegated to appendices. The book is a little expensive for the content, but I consider it a useful acquisition  
0 of 0 people found the following review helpful. JADE: A reliable adaptive Differential Evolution algorithm  
By Rawaa Dawoud Al-Dabbagh  
As I am one of the majority who are interested in DE algorithm and my complete research work is based on it, and as my propensity is to make it adaptive or self-adaptive DE; so I reviewed some of the works that are close related to the subject and I have found that JADE is the most reliable adaptive DE algorithm. Accordingly, I have purchased this book to be aware of this algorithm and all the related work that is based on it.  
Rawaa Dawoud Al-Dabbagh

The fundamental theme of this book is theoretical study of differential evolution and algorithmic analysis of parameter adaptive schemes. The book offers real-world insights into a variety of large-scale complex industrial applications.

From the Back Cover  
Optimization problems are ubiquitous in academic research and real-world applications wherever such resources as space, time and cost are limited. Researchers and practitioners need to solve problems fundamental to their daily work which, however, may show a variety of challenging characteristics such as discontinuity, nonlinearity, nonconvexity, and multimodality. It is expected that solving a complex optimization problem itself should be easy to use, reliable and efficient to achieve satisfactory solutions. Differential evolution is a recent branch of evolutionary algorithms that is capable of addressing a wide set of complex optimization problems in a relatively uniform and conceptually simple manner. For better performance, the control parameters of differential evolution need to be set appropriately as they have different effects on evolutionary search behaviours for various problems or at different optimization stages of a single problem. The fundamental theme of the book is theoretical study of differential evolution and algorithmic analysis of parameter adaptive schemes. Topics covered in this book include:  
Theoretical analysis of differential evolution and its control parameters  
Algorithmic design and comparative analysis of parameter adaptive schemes  
Scalability analysis of adaptive differential evolution  
Adaptive differential evolution for multi-objective optimization  
Incorporation of surrogate model for computationally expensive optimization  
Application to winner determination in combinatorial auctions of E-Commerce  
Application to flight route planning in Air Traffic Management  
Application to transition probability matrix optimization in credit-decision making