

Introduction to Evolutionary Informatics

By **Robert J Marks II** (*Baylor University, USA*),
William A Dembski (*Evolutionary Informatics Lab, USA*) &
Winston Ewert (*Evolutionary Informatics Lab, USA*)

Description:

Science has made great strides in modeling space, time, mass and energy. Yet little attention has been paid to the precise representation of the information ubiquitous in nature.

Introduction to Evolutionary Informatics fuses results from complexity modeling and information theory that allow both meaning and design difficulty in nature to be measured in bits. Built on the foundation of a series of peer-reviewed papers published by the authors, the book is written at a level easily understandable to readers with knowledge of rudimentary high school math. Those seeking a quick first read or those not interested in mathematical detail can skip marked sections in the monograph and still experience the impact of this new and exciting model of nature's information.

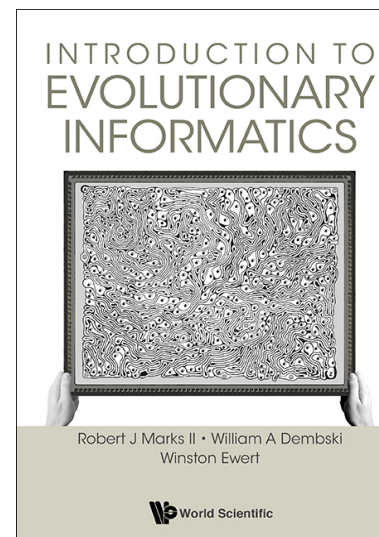
This book is written for enthusiasts in science, engineering and mathematics interested in understanding the essential role of information in closely examined evolution theory.

Authors:

Robert J Marks II is a Distinguished Professor of Engineering in the Department of Engineering at Baylor University, USA. Marks's professional awards include a NASA Tech Brief Award and a best paper award from the American Brachytherapy Society for prostate cancer research. He is Fellow of both IEEE and The Optical Society of America.

William A Dembski is Senior Research Scientist at the Evolutionary Informatics Lab in McGregor, Texas; and also an entrepreneur developing educational websites and software. He holds a BA in Psychology, MS in Statistics, PhD in Philosophy, and a PhD in Mathematics (awarded in 1988 by the University of Chicago, Chicago, Illinois, USA), and an MDiv degree from Princeton Theological Seminary (1996, New Jersey, USA).

Winston Ewert is currently a Software Engineer in Vancouver, Canada. He is a Senior Research Scientist at the Evolutionary Informatics Lab. Ewert holds a PhD from Baylor University, Waco, Texas, USA.



Pub Date: May 2017

Binding: Hardcover

ISBN: 978-981-3142-13-8

Price: £91

Binding: Softcover

ISBN: 978-981-3142-14-5

Price: £40

Page Extent: 350pp

Type: Popular Book (Treat as Textbook)

Main Subject: Computer Science

Sub-subjects: Artificial Intelligence/Machine Learning; Information Theory; Popular Science

BIC: UYQ

BISAC: COM039000; COM031000; COM043050

Keywords: Information Theory; Algorithmic Information Theory; Computer Search; Kolmogorov Complexity; Specified Complexity; Shannon Information Theory; Gregory Chaitin; Borel's Law; Bernoulli's Principle of Insufficient Reason; Basener's Ceiling; Tierra; Active Information; The Monte Hall Problem; Oracles; Avida; Fitness Landscapes; Evolution; Coevolution; Search Algorithms; Metabiology; Intelligent Design
Readership: General/Popular; Enthusiasts in science, engineering and apologetics and to those interested in the information theoretic components of closely examined evolution

Imprint: World Scientific Publishing Company

Contents:

- History
- Foundation
- The Math Herein and the † Symbol
- ***Introduction***
- ***Information. What is It?***
- ***Design Search in Evolution and the Requirement of Intelligence***
- ***Determinism in Randomness***
- ***Conservation of Information in Evolutionary Processes***
- ***Analysis of Some Evolutionary Models***
- ***Meaning of Meaning***
- ***Intelligent Design & Artificial Intelligence***