

1. Record Nr.	UNINA9910254344603321
Titolo	EVOLVE – A Bridge between Probability, Set Oriented Numerics and Evolutionary Computation VII // edited by Michael Emmerich, André Deutz, Oliver Schütze, Pierrick Legrand, Emilia Tantar, Alexandru-Adrian Tantar
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2017
ISBN	3-319-49325-6
Edizione	[1st ed. 2017.]
Descrizione fisica	1 online resource (VIII, 210 p. 75 illus., 36 illus. in color.)
Collana	Studies in Computational Intelligence, , 1860-949X ; ; 662
Disciplina	005.432
Soggetti	Computational intelligence Artificial intelligence Probabilities Computer science—Mathematics Computer mathematics Computational Intelligence Artificial Intelligence Probability Theory and Stochastic Processes Mathematics of Computing Computational Mathematics and Numerical Analysis
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	A Survey of Diversity Oriented Optimization: Problems, Indicators, and Algorithms -- Global Multi-Objective Optimization by Means of Cell Mapping Techniques -- Percentile via Polynomial Chaos Expansion: Bridging Robust Optimization with Reliability -- Evolutionary Equilibrium Detection in Multicriteria Games -- A New Estimation of Distribution Algorithm for Nash Equilibria Detection -- Multi-Objective Optimisation by Self-Adaptive Evolutionary Algorithm -- Evidence Based Multidisciplinary Robust Optimization for Mars Micro Entry Probe Design -- A Simulation-Based Algorithm for the Probabilistic Traveling Salesman Problem -- Average Cuboid Volume as a Convergence Indicator and Selection Criterion for Multi-Objective Biochemical

## Optimization.

### Sommario/riassunto

This book comprises nine selected works on numerical and computational methods for solving multiobjective optimization, game theory, and machine learning problems. It provides extended versions of selected papers from various fields of science such as computer science, mathematics and engineering that were presented at EVOLVE 2013 held in July 2013 at Leiden University in the Netherlands. The internationally peer-reviewed papers include original work on important topics in both theory and applications, such as the role of diversity in optimization, statistical approaches to combinatorial optimization, computational game theory, and cell mapping techniques for numerical landscape exploration. Applications focus on aspects including robustness, handling multiple objectives, and complex search spaces in engineering design and computational biology.