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Sommario/riassunto	This book focuses on the fields of nature-inspired algorithms, optimization problems and fuzzy logic. In this book, a new metaheuristic based on String Theory from Physics is proposed. It is important to mention that we have proposed the new algorithm to generate new potential solutions in optimization problems in order to find new ways that could improve the results in solving these problems. We are presenting the results for the proposed method in different cases of study. The first case, is optimization of traditional benchmark mathematical functions. The second case, is the optimization of benchmark functions of the CEC 2015 Competition and we are also presenting results of the CEC 2017 Competition on Constrained Real-Parameter Optimization that are problems that contain the presence of constraints that alter the shape of the search space making them more

difficult to solve. Finally, in the third case, we are presenting the optimization of a fuzzy inference system, specifically forfinding the optimal design of a fuzzy controller for an autonomous mobile robot. It is important to mention that in all study cases we are presenting statistical tests in or-der to validate the performance of proposed method. In summary, we believe that this book will be of great interest to a wide audience, ranging from engineering and science graduate students, to researchers and professors in computational intelligence, metaheuristics, optimization, robotics and control.