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Nota di contenuto	Introduction -- Theory and Background -- Problems Statement -- Methodology -- Simulation Results -- Statistical Analysis and Comparison of Results.
Sommario/riassunto	In this book, a methodology for parameter adaptation in meta-heuristic optimization methods is proposed. This methodology is based on using metrics about the population of the meta-heuristic methods, to decide through a fuzzy inference system the best parameter values that were carefully selected to be adjusted. With this modification of parameters we want to find a better model of the behavior of the optimization method, because with the modification of parameters, these will affect directly the way in which the global or local search are performed. Three different optimization methods were used to verify the improvement of the proposed methodology. In this case the optimization methods are: PSO (Particle Swarm Optimization), ACO (Ant Colony Optimization) and GSA (Gravitational Search Algorithm), where some parameters are selected to be dynamically adjusted, and these parameters have the most impact in the behavior of each optimization method. Simulation results show that the proposed methodology helps to each optimization method in obtaining better results than the results

obtained by the original method without parameter adjustment.

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