



METAHEURISTIC START FOR GRADIENT BASED OPTIMIZATION ALGORITHMS

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Abstract

Due to the complexity of many real-world optimization problems, better optimization algorithms are always needed. Complex optimization problems that cannot be solved using classical approaches require efficient search metaheuristics to find optimal solutions. Recently, metaheuristic global optimization algorithms becomes a popular choice and more practical for solving complex and loosely defined problems, which are otherwise difficult to solve by traditional methods. This is due to their nature that implies discontinuities of the search space, non differentiability of the objective functions and initial feasible solutions. But metaheuristic global optimization algorithms are less susceptible to discontinuity and differentiability and also bad proposals of initial feasible solution do not affect the end solution. In this paper, an initial feasible solution gauss for gradient based optimization algorithms can be generated with well known population based metaheuristic Genetic Algorithm.

Keywords and phrases: chromosome, crossover, gradient, metaheuristics, mutation, optimization, population, ranking, genetic algorithms, selection, subgradient.

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