EFFECTIVE ALLELE PRESERVATION BY OFFSPRING SELECTION: 
AN EMPIRICAL STUDY FOR THE TSP

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ABSTRACT
The basic selection ideas of the different representatives of evolutionary algorithms are sometimes quite diverse. The selection concept of genetic algorithms (GAs) and genetic programming (GP) is basically realized by the selection of above-average parents for reproduction whereas evolution strategies (ES) use the fitness of newly evolved offspring as the basis for selection (survival of the fittest due to birth surplus). This contribution considers aspects of population genetics and Evolution Strategies in order to propose an enhanced and generic selection model for Genetic Algorithms which is able to preserve the alleles which are part of a high quality solution. Some selected aspects of these enhanced techniques are discussed exemplarily on the basis of travelling salesman benchmark (TSP) benchmark problem instances.

Keywords: soficomputing, evolutionary computation, selection, self adaptation
REFERENCES


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