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| **Article Title (maximum 10 words):** |
| **Performance Analysis of Partial Use of Local Optimization Operator on Genetic Algorithm for TSP** |

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| **Abstract (max 200 words):**Abstract should clearly state the purpose of the study; briefly explain what was done, what was found and what was concluded. |
| **In this paper we study the influence of hybridization of a genetic algorithm with a local optimizer on instances of a Traveling Salesman Problem from a TSPLIB.****In tests we applied hybridization at various percentages of genetic algorithm iterations.****On one side the less frequent application of hybridization decreased the average running time of the algorithm from 14.62 sec to 2.78 sec at 100% and 10% hybridization respectively, while on the other side the quality of solution on average deteriorated only from 0.21% till 1.40% worse than the optimal solution.****We also studied at which iterations of the genetic algorithm to apply the hybridization. We applied it at random iterations, at the initial iterations, and the ending ones where the later proved to be the best.** |

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| **Key words (max 10 words):** |
| **Genetic algorithm, traveling salesman problem, optimization, grafted genetic algorithm** |

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