

Lecture 5: Exercises

MSE Algorithms - Metaheuristics



Ant Colony Optimization for TSP

If a meta heuristic for a certain problem shall be implemented, then typically there are several implementations already available on the internet. In this exercise, your task is to find evaluate and optimize one of these.

- a) Search an existing implementation of ACO for TSP from the internet.
- b) Evaluate the performance and stability of the tool for various instances (e.g. by comparing solutions to those computed with the algorithms from previous exercises).
- c) Experiment with various settings for the parameters of your ant system.
- d) Apply your "best" setting for the selected algorithm to the standard instances of TSP (see Exercises of Lecture 2) and report your results at:

https://docs.google.com/forms/d/e/1FAIpQLSeEZ4uVkwj0VFZQ5eTRQGXL9v5GxdAKKy-nj8xc_9gZvVaUoA/viewform?usp=sf_link