

KUNGLIGA TEKNISKA HÖGSKOLAN

DD2440

ADVANCED ALGORITHMS

Project 1 :
Euclidean TSP



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1 Local Optimization

After having implemented the four above heuristics, we tried to implement some local optimization methods. These methods take a given tour and try to enhance it. Three main techniques are commonly used : 2-opt, 3-opt and Lin-Kernighan.

1.1 2-opt

The idea of 2-opt is to try to exchange all the pairs of edges (see example in Figure 1).

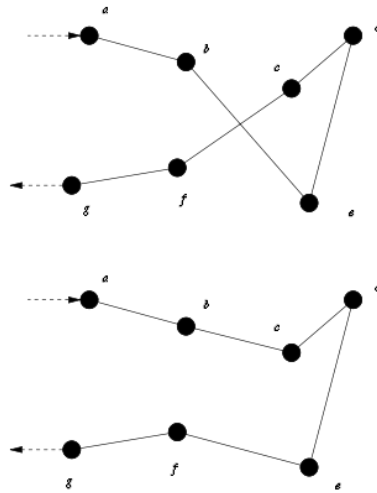


Figure 1: Example of permutation

1.2 3-opt