

**Algorithms for Genome Rearrangement
Summer 2017**

Exercises

Exercise 03, 05.05.2017

1. Give an algorithm for computing optimal covers of a component tree T_π in time $O(n)$, where n is the size of the permutation π . (3 P)
2. Removing hurdles can require a *cycle merge reversal*, that is, a reversal defined by black edges in two different cycles, the two cycles are merged into one. Prove that this new cycle is always oriented. (3 P)

Hand in solutions before tutorial on 12.05.2017