Exercises – Algorithms for Genome Research

Exercise List 12 — 30.01.2015

Discussion of exercises on: 06.02.2015

Exercise 1

Read the following paper:

Heber, S., & Stoye, J. (2001). **Finding All Common Intervals of k Permutations**. In A. Amir (Ed.), Combinatorial Pattern Matching SE - 19 (Vol. 2089, pp. 207-218). Springer Berlin Heidelberg.
On section **5**, the authors describe the algorithm seen in the lecture, to find all irreducible intervals of k permutations.

(a) Describe the data structure used to store the important variables, and how algorithm 5 works.

(b) Run the algorithm (or at least some steps) on the following permutations:

$$\pi_1 = (1, 2, 3, 4, 5, 6, 7, 8, 9),\ \pi_2 = (9, 8, 4, 5, 6, 7, 1, 2, 3),\ \pi_3 = (1, 2, 3, 8, 7, 4, 5, 6, 9)$$