

Algorithms in Genome Research
Winter 2011/2012

Exercises

Number 5, Discussion: 2011 December 09

1. What are the special features that a read mapper for cDNA sequences should implement?
2. Construct the splicing graph for the following mRNA reads. How many splice variants can you reconstruct?
AATAGGATTCAGG, CCTAGTTAGTTCA, CTCACCTAGTTCA, GTTAGTTCAGGAC, CTAGCCGATCGAAT,
AGGAGGAGGAT, AGGATTCA, CTAGCGAATAG
3. Find 3 (different) pairs of splice variants that can not uniquely be resolved in quantitative transcriptomics in a perfect setting (no sequencing errors, exact quantification).