

Algorithms for Bioinformatics (Autumn 2015)

Study Groups 3 (Tue 22.9. 12-14 B222)

Group A: Firstname beginning with A, K or L

- Read the the sections *Introduction* and *Methods* in the paper

Salmela and Rivals: **LoRDEC: accurate and efficient long read error correction.**

Bioinformatics (2014) 30 (24): 3506-3514.

<http://dx.doi.org/10.1093/bioinformatics/btu538>

- At study group, discuss the method based on Fig. 2. How are the techniques related to the lecture algorithms?

Group B: Firstname beginning with B–J

- Read about an algorithm for the *Shortest Superstring Problem* in last year's lecture notes (Lecture 5, primarily slides 7–15):

https://www.cs.helsinki.fi/juha.karkkainen/opetus/14s/AfB/AfB_lecture5_20140925.pdf

- At the study group discuss the main ideas of the algorithm. This is a Hamiltonian path approach. Would an Eulerian path approach be possible here?

Group C: Firstname beginning with M–Ö

- Read about *succinct de Bruijn graphs* in Alex Bowe's blog:

<http://alexbowe.com/succinct-debruijn-graphs/>

- At the study group, discuss the basic ideas of the method. How does it save so much space?