



## Comenius University in Bratislava Faculty of Mathematics, Physics and Informatics

## THESIS ASSIGNMENT

Name and Surname: Bc. Matúš Zeleňák

**Study programme:** Computer Science (Single degree study, master II. deg., full

time form)

Field of Study: Computer Science Type of Thesis: Diploma Thesis

**Language of Thesis:** English **Secondary language:** Slovak

**Title:** Algorithms for Assembly of Hybrid Genomes from Long Reads

Annotation: Hybrid genomes can contain two or more slightly different copies

of the same set of chromosomes. Depending on the level of similarity between the copies, traditional algorithms for genome assembly either mix the two copies or assemble the copies separately. The goal of this thesis is to develop new algorithms by utilizing new information brought to the problem with long

read sequencing.

**Supervisor:** doc. Mgr. Tomáš Vinař, PhD.

**Department:** FMFI.KAI - Department of Applied Informatics

**Head of** prof. Ing. Igor Farkaš, Dr.

department:

**Assigned:** 15.12.2017

**Approved:** 15.12.2017 prof. RNDr. Rastislav Kráľovič, PhD.

Guarantor of Study Programme

Student	Supervisor