3DM - 3-D Modeling of Chromatin Structure

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**Job description:** Nucleosomes are the fundamental repeating subunits of chromatin structure and, for each person, responsible for packaging 100 trillion meters of DNA in cell nuclei ([http://www.nature.com/scitable/topicpage/dna-packaging-nucleosomes-and-chromatin-310](http://www.nature.com/scitable/topicpage/dna-packaging-nucleosomes-and-chromatin-310)). 3-D structure of genomic DNA in cell nucleus can be studied using novel next-generation sequencing (NGS) methods, and interpretation of such sequencing data requires sophisticated computational methods. This project focuses on studying and developing computational methods which can infer 3-D model of genome from NGS data. The project requires good knowledge of mathematics, statistics/machine learning, programming skills and interest in molecular biology.

**Additional information:** [http://research.ics.aalto.fi/csb/](http://research.ics.aalto.fi/csb/)