Concept Talk on Mar 31st, 2015 - Abstract

Due to novel high-throughput next-generation sequencing (NGS) technologies, the sequencing of huge amounts of genetic information has become affordable. On account of this flood of data, IT costs may become a major obstacle compared to sequencing costs. High-performance compression of genomic data is required to reduce the storage size and transmission costs.

Concerning this development, MPEG is starting a standardization effort in genetic information processing and particularly compression. The appointed ad-hoc group on genome compression has issued a list of requirements on genome compression (and storage) and furthermore provided a publicly available selection of reference data to be used to test existing and new compression techniques.

In this talk I will present the current state-of-the-art in the field of genome compression and first approaches to improve genomic information compression.