Biological Knowledge Discovery from Big Data (BIOKDD)
In recent years, there has been a rapid development of biological technologies producing more and more biological data, i.e., data related to biological macromolecules (DNA, RNA, and proteins). The rise of Next Generation Sequencing (NGS) technologies, also known as high-throughput sequencing technologies, has contributed actively to the deluge of these data. In general, these data are big, heterogeneous, complex, and distributed in databases all over the world. Analyzing biological big data is a challenging task, not only because of its complexity and its multiple and numerous correlated factors, but also because of the continuous evolution of our understanding of the biological mechanisms. Classical approaches of biological data analysis are no longer efficient and produce only a very limited amount of information, compared to the numerous and complex biological mechanisms under study. This leads to the necessity to adopt new computer tools and develop new in silico high performance approaches to support us in the analysis of biological big data and, hence, to help us in our understanding of the correlations that exist between, on the one hand, structures and functional patterns in biological macromolecules and, on the other hand, genetic and biochemical mechanisms. Biological Knowledge Discovery from Big Data (BIOKDD) was a response to these new trends.

This workshop contains fascinating papers that deal with BIOKDD.

Mourad Elloumi
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