NuComBHDA: The 1° International Workshop on Advanced Numerical Computations for Big Human Data Analysis

Abstract: Nowadays the healthcare is one of the most important research field topic. With the overcoming of new technology trends a large number of good clinical results have been achieved. The combining of most recent machine learning methods with healthcare and human-life sciences performs appreciable results. Human-life data (i.e. genomics, RMI) stored into specific files require very large sizes. Despite the newest existing architectures, the management, analysis and its computations turn out very difficult. In order to obtain a gain of performances in accuracy, efficiency and reliability terms the numerical analysis combined with intelligent artificial are able to provide a very helpful results.

During the recent global urgency desaeas, scientists, clinicians, and healthcare experts around the world keep on searching for a new technology to support in tackling the COVID-19 pandemic. The great use of Machine Learning (ML) and Artificial Intelligence (AI) application on the epidemic are very helpful for researchers by giving a new angle to fight against the novel Coronavirus outbreak. Several research papers propose new methods which are able to perform a prediction or treatment for the novel COVID-19 desease. ML combined with efficient numerical schema give us new frontiers in war against the recent pandemic with respect to canonical approaches.

This workshop invites novel contributions that build a great scientific impact in order to advance the current standards in computational healthcare sciences.

Goals:
The goal of this workshop is to provide a forum for discussing and analyzing recent trends in data mining and analysis, mainly focused on computer science and numerical aspects. Moreover, the aforementioned fields are widely exploitable for several human life problems (e.g. genoma analysis, healthcare prediction, cancer risk management). The application of advanced numerical techniques with Machine learning methods performs very appreciable results in the healthcare sciences. The aim is to bridge theoretical issues and numerical aspects to debate on mathematical and computational foundations of algorithmic approaches able to infer knowledge from data. Speeches and Communications on Clustering, Genomics and Proteomics analysis, Supervised and Unsupervised Classification schemes, Data Mining methods, Numerical schema, Efficient and Reliable algorithmic strategies for data analysis and mining are welcome.

Topics of interest include, but are not limited to:

- Supervised and Unsupervised classification algorithms for healthcare;

- Algorithms and strategies for air-pollution study in human-life quality;

- Mathematics for Data mining and Machine Learning;

- Machine Learning methods for human-life improving;

- High-performance and numerical methods for Big Human Data analysis;

Workshop organizers:

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