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Editorial

In medicine, computational biology, chemistry, and food industry, to name a few research areas where large amounts of data are extracted, pre-processed, selected and classified in order to perform pattern recognition, string editing and data compression, the classical formalisms for data analyzing are no longer suitable, therefore IT are involved in this process and thus, automated systems that recognize biological features have been in use for several years.

There is a strong demand for the development of such automated algorithms and devices, due to the improved video and biological computation techniques that avoid the possibility of the analyst missing/misreading information. Within heuristic approaches there are a number of methods for identifying important input features. Such methods are considered saliency ones mainly due to the fact that they can intuitively model and simulate the mechanisms and signals used in computational biology. Recently, the general problem of selecting a parsimonious salient feature set for computational biology has retained a great deal of interest.

In this journal one may notice two contributed papers about an innovative method for automatic RAMAN spectra identification, and respectively Microcanonical Multiscale Formalisms applied to analyze electrical heart potential. The first paper entitled "A Novel Method for the Interpretation of Spectrometer Signals based on Delta-Modulation and Similarity Determination" brings as novelty the identification of spectra based on a featureless representation. The method was tested for RAMAN spectra for screening of bio-molecular interactions. This representation uses a delta modulation as a calculus tool and performs in a 0/1 sequences comparison between different spectra. This new approach was tested by using three different similarity measures: the Hamming distance, the Levenshtein distance, and the Dameran- Levenshtein distance. The second paper "Microcanonical Processing Methodology for ECG and Intracardial Potential: Application to Atrial Fibrillation" underlines that electrical potential of the heart is a highly complex signal as a result of multiple regulation mechanisms. Therefore, in order to better understand and analyze the electric potential of the heart the authors focused on atrial fibrillation and demonstrate that both ECG and intracardial potential signals can be described using a mixed-model between

fast dynamics and slow dynamics processes. The analysis is estimated to improve the automated early warning procedures, particularly to guide radiofrequency ablation procedures.

This issue of the journal invites to analysis and reflection about how we can contribute to the innovation processes for ourselves health.

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