

CALL FOR PAPERS

Over the last few decades, biological signal processing has become a growing field due to its suitability for both analyzing and uncovering aspects that have previously remained encrypted. In this context, physiological signals may be regarded as the way in which two or more biological entities interact with each other, producing new information that usually increases the total information of a given biological system. Their complexity tends to depend on the nature of the information transferred, and for this reason their interpretation is a challenge in the majority of the evolved biological systems.

This special issue is focused on the application of both existing and novel complexity measures, in order to increase our understanding of complex biological systems and their underlying mechanisms. Particularly welcome are papers which aim to offer new information about complex systems that play an instrumental role in human pathologies. Accordingly, we encourage the submission of papers that address themes of high methodological complexity related to the analysis of biomedical signals and images, such as electroencephalography (EEG), magnetoencephalography (MEG), functional magnetic resonance imaging (fMRI), electromyography (EMG), electrocardiography (ECG), and overnight blood oxygen saturation (SpO₂). Although research articles are very welcomed, we also encourage review articles describing the current state of the art of given complex biological systems and/or complexity measures, as well as its relationship with neuroscience, sleep, or any other specific pathology.

Potential topics include but are not limited to the following:

- ▶ Complexity measures to characterize sleep and related pathologies
- ▶ Novel measures of complexity applied to biological signals
- ▶ Complex networks analysis for biological systems interpretation
- ▶ Complex measures for real-time applications, such as Brain-Computer Interfaces
- ▶ Optimization and evaluation of the complexity measure algorithms applied to physiological signals
- ▶ Fractal and multifractal analyses applied to the characterization of human disorders

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/complexity/copsi/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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Submission Deadline

Friday, 9 August 2019

Publication Date

December 2019