Special Issue

The Role of Nonlinear Heart Rate Variability in Health and Disease

Message from the Guest Editor

The analysis of heart rate variability (HRV) involves non-invasive methods that estimate autonomic function via the evaluation of heart rhythm oscillation. Increased HRV is related to reduced risk of cardiovascular disease, including stroke, hypertension, and all-cause mortality. On the other hand, reduced HRV is linked to numerous disorders. Mathematical approaches applied to HRV analysis help in understanding biological signals in human and animals. The complex behavior of HRV may be evaluated via nonlinear methods, including Shannon entropy, sample entropy, symbolic analysis, and detrended fluctuation analysis. Nonlinear analysis of HRV has been associated with improved health. Moreover, several studies have investigated the association between changes in nonlinear HRV and metabolic, neurologic, respiratory, and gastrointestinal systems. In light of these considerations, this Special Issue aims to invite experts in the area of nonlinear biological signaling to provide analyses of evidence toward evaluating the involvement of nonlinear HRV in health and disease.

Guest Editor

Dr. Vitor Engrácia Valenti
Department of Speech and Hearing Pathology, Campus de Marília, Universidade Estadual Paulista, SP 05508-060, Brazil

Deadline for manuscript submissions

closed (30 October 2021)

Entropy

an Open Access Journal by MDPI

Impact Factor 2.0
CiteScore 4.9
Indexed in PubMed

mdpi.com/si/82485

Entropy
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
entropy@mdpi.com

mdpi.com/journal/entropy

Entropy

an Open Access Journal by MDPI

Impact Factor 2.0
CiteScore 4.9
Indexed in PubMed

mdpi.com/journal/entropy

About the Journal

Message from the Editor-in-Chief

The concept of entropy is traditionally a quantity in physics that has to do with temperature. However, it is now clear that entropy is deeply related to information theory and the process of inference. As such, entropic techniques have found broad application in the sciences.

Entropy is an online open access journal providing an advanced forum for the development and/or application of entropic and information-theoretic studies in a wide variety of applications. *Entropy* is inviting innovative and insightful contributions. Please consider *Entropy* as an exceptional home for your manuscript.

Editor-in-Chief

Prof. Dr. Kevin H. Knuth
Department of Physics, University at Albany, 1400 Washington Avenue, Albany, NY 12222, USA

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), Inspec, PubMed, PMC, Astrophysics Data System, and other databases.

Journal Rank:

JCR - Q2 (Physics, Multidisciplinary) / CiteScore - Q1 (Mathematical Physics)

MDPI