Special Issue

Application of Information Theory and Entropy in Cardiology

Message from the Guest Editor

The human heart is a complex system composed of 5 billion autonomous cardiomyocytes that interact with each other with simple rules of operation and minimal central control. This interaction leads to system behaviors at multiple scales. At the microscopic scale, the system behavior is characterized by transitions of cardiomyocyte states between excitation and relaxation. This creates a series of traveling waves and a multitude of arrhythmia at the macroscopic scale that controls the life and death of millions of human beings worldwide. This Special Issue will focus on the application of information theory in Cardiology to understand 1) the relationship between micro- and macro-scale behaviors of the heart, 2) phase transitions in the cardiac system, and 3) the mechanism of heart disease. Papers exploring topics from molecular to population scales will be considered.

Guest Editor

Dr. Hiroshi Ashikaga

Department of Medicine, Division of Cardiology, Johns Hopkins University School of Medicine, Baltimore, MD, USA

Deadline for manuscript submissions

closed (31 March 2020)

Entropy

an Open Access Journal by MDPI

Impact Factor 2.0
CiteScore 5.2
Indexed in PubMed

mdpi.com/si/26303

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 5.2
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