Special Issue

Information Theory in Multi-Agent Systems: Methods and Applications

Message from the Guest Editor

In recent years, research on the topic of the intelligent control and autonomous decision making of Multi-Agent System (MAS) has made a splash in the real-world in the form of autonomous driving, multi-robot collaboration, and MOBA games. Despite the great success of these emerging techniques in many AI tasks, they still suffer from several limitations. Innovative approaches such as unsupervised reinforcement learning (URL) have brought about a breakthrough. In this area, the contribution of Information Theory could be highly impactful. How to deal with the mutual information objectives, state entropy, and uncertainty evaluations involved in intelligent methods are essential but difficult issues to be addressed. New emergent machine learning technologies (e.g., unsupervised reinforcement learning), information theory (e.g., maximize mutual information), variational approximation, entropy estimators, and so forth will offer us new solutions. This Special Issue welcomes the submission of new perspectives, theories, algorithms, and applications of multi-agent systems involving information theory on the central issues of efficiency, generalization, robustness, and interpretability.

Guest Editor

Prof. Dr. Haobin Shi
School of Computer Science, Northwestern Polytechnical University, Xi'an 710072, China

Deadline for manuscript submissions

closed (20 April 2024)

Entropy

an Open Access Journal by MDPI

Impact Factor 2.0
CiteScore 5.2
Indexed in PubMed

mdpi.com/si/163162

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