



Computational Neuroscience and Artificial Intelligence: Cross-Talks and Interrelated Contributions

Guest Editor:

Dr. Ali Yadollahpour

Department of Psychology,
University of Sheffield, Sheffield,
UK

Deadline for manuscript
submissions:

31 March 2025

Message from the Guest Editor

Computational neuroscience aims to understand how the nervous system processes information to produce cognitive function and behavior. The core notion of this process is the models, that is, mathematical and computational descriptions of the system under study, including the structure, physiology, information processing and cognitive functions of the nervous system. Artificial intelligence (AI) simulates human intelligence using machines to build intelligent automation of complex tasks for such machines achieve decision making and problem solving capacities comparable to that of the human brain. Computational neuroscience and AI are mutually interrelated and benefit one another. Computational neuroscience has brought various novelties and improvements into AI. Biological neural networks have inspired the building of complex deep neural network architectures successfully used in object detection, text processing, and the prediction and early detection of diseases. This Special Issue aims to review recent advances, applications and challenges in using computational neuroscience and AI in human life.





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Stephen D. Meriney

Department of Neuroscience,
University of Pittsburgh,
Pittsburgh, PA 15260, USA

Message from the Editor-in-Chief

You are invited to contribute a research article or a comprehensive review for consideration and publication in *Brain Sciences* (ISSN 2076-3425). *Brain Sciences* is an open access, peer-reviewed scientific journal that publishes original articles, critical reviews, research notes, and short communications on neuroscience. The scientific community and the general public can access the content free of charge as soon as it is published.

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), PubMed, PMC, Embase, PSYINDEX, CAPlus / SciFinder, and other databases.

Rapid Publication: manuscripts are peer-reviewed and a first decision is provided to authors approximately 12.9 days after submission; acceptance to publication is undertaken in 2.5 days (median values for papers published in this journal in the first half of 2024).

Contact Us

Brain Sciences Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/brainsci
brainsci@mdpi.com
[X@BrainSci_MDPI](https://twitter.com/BrainSci_MDPI)