

Special Issue

Artificial Intelligence for Pediatric Monitoring, Diagnosis, and Treatment

Message from the Guest Editors

The term “artificial intelligence” (AI) refers to the general ability of computing algorithms to emulate human decision-making, while machine learning (ML) is a subdivision of AI. Over recent decades, both have deeply influenced personalized diagnostics and therapeutics, drug discovery, and medical imaging. These approaches have the potential to significantly improve our understanding of diseases and of therapeutic efficacy in both children and infants. Neonatal AI applications involve neuromonitoring, prediction of respiratory conditions such as respiratory distress syndrome, chronic lung disease, sepsis, and more. Pediatric AI applications include analysis of medical imaging to improve the diagnosis of an array of conditions, and prediction of infections and chemotherapy-induced complications.

In this Special Issue, we invite submissions exploring cutting-edge research and recent advances in the field of artificial Intelligence for pediatric monitoring, diagnosis and treatment, encompassing both theoretical and experimental studies, as well as reviews and articles.

Guest Editors

Dr. Stefano Nobile

Department of Life Sciences and Public Health, Fondazione Policlinico Universitario Agostino Gemelli IRCCS, 00168 Rome, Italy

Dr. Alessandro Perri

Department of Life Sciences and Public Health, Fondazione Policlinico Universitario Agostino Gemelli IRCCS, 00168 Rome, Italy

Deadline for manuscript submissions

closed (20 August 2025)



Applied Sciences

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 5.5



mdpi.com/si/195303

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

[mdpi.com/journal/
applsci](https://mdpi.com/journal/applsci)





Applied Sciences

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 5.5



[mdpi.com/journal/
applsci](https://mdpi.com/journal/applsci)



About the Journal

Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32,
20133 Milano, Italy

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), Ei Compendex, Inspec, Embase, CAPIus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)