

Special Issue

Software and Systems Engineering in Astrophysics

Message from the Guest Editor

This Special Issue aims to explore the challenges, methodologies, and innovations in software and systems engineering within the field of astrophysics. Modern astrophysical observatories, both ground-based and space-borne, rely on increasingly complex software infrastructures to support observation scheduling, data acquisition, instrumentation control, pipeline automation, and long-term data preservation. As scientific goals become more ambitious and systems more distributed, rigorous engineering practices are essential for ensuring the reliability, maintainability, and performance of mission-critical software. We welcome contributions addressing software architectures, real-time systems, control software for astronomical instrumentation, workflow orchestration for data processing, model-based systems engineering (MBSE), DevOps practices adapted to scientific environments, and innovative solutions for open-source collaboration in astrophysics.

Guest Editor

Dr. Vito Conforti

Istituto Nazionale di Astrofisica, Osservatorio di Astrofisica e Scienza dello Spazio, 40129 Bologna, Italy

Deadline for manuscript submissions

20 July 2026



Applied Sciences

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 5.5



mdpi.com/si/243058

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

mdpi.com/journal/

appls.c





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)