Special Issue

Application of Neural Networks to Plasma Data Analysis

Message from the Guest Editor

Our understanding of the physics of plasma has been mostly developed using tokamaks. This device is rather complicated, with many unknown variables to control in order for a fusion experiment to begin. Magnetic configuration, internal currents, geometric configuration. There are also various instabilities that should be controlled, including Alfven waves, elms, runaway electrons, and disruptions. All of these issues have been evaluated in various tokamaks and somehow controlled. It is possible to collect all these data and study the most efficient options using a multilayer perceptron, i.e., artificial intelligence.

Guest Editor

Prof. Dr. Brunello Tirozzi
Department of Physics, University "La Sapienza", 00185 Rome, Italy

Deadline for manuscript submissions

31 January 2026

Plasma

MDPI

About the Journal

Message from the Editor-in-Chief

Editor-in-Chief

Prof. Dr. Andrey Starikovskiy
Department of Mechanical and Aerospace Engineering, Princeton University, Princeton, NJ 08540, USA

Author Benefits

High Visibility:
indexed within ESCI (Web of Science), Scopus, Inspec, CAPlus / SciFinder, and other databases.

Rapid Publication:
manuscripts are peer-reviewed and a first decision is provided to authors approximately 22.6 days after submission; acceptance to publication is undertaken in 4.6 days (median values for papers published in this journal in the first half of 2025).

Recognition of Reviewers:
reviewers who provide timely, thorough peer-review reports receive vouchers entitling them to a discount on the APC of their next publication in any MDPI journal, in appreciation of the work done.