Special Issue

Astrophysical Processes Near Astronomical Black Holes: Particles, Fluids and Plasma Effects

Message from the Guest Editors

This Special Issue will focus on both observational and theoretical studies of astrophysical processes near black holes. The topics of interest for this Special Issue include (but are not limited to):

Classical and modern gravitational theories; Phenomenological models of spherical and the axissymmetric accretion on compact objects; Magnetic field generation and evolution and MHD processes in the black hole vicinity;

Charged particle dynamics and their orbits near black holes;

In addition, new and future data should be explored, such as X-ray, gamma-ray, and gravitational waves. The existing articles on the topics of our interest in general relativity and astrophysics ignore aspects of astronomical data and observations. We encourage authors to submit articles supplemented with substantial evidence of astronomical data that incorporate the theory of black hole physics.

Guest Editors

Dr. Qiang Wu

Prof. Dr. Mubasher Jamil

Dr. Tao Zhu

Deadline for manuscript submissions

closed (15 December 2022)



Galaxies

an Open Access Journal by MDPI

Impact Factor 3.8 CiteScore 6.3



mdpi.com/si/113476

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

mdpi.com/journal/galaxies





Galaxies

an Open Access Journal by MDPI

Impact Factor 3.8 CiteScore 6.3





About the Journal

Message from the Editorial Board

Galaxies provides an advanced forum for studies related to astronomy, astrophysics, and cosmology, including all of their subfields. Different formats, such as specialized research articles, reviews, communications and technical notes are welcomed. Manuscripts containing original and creative research proposals and ideas are especially appreciated.

We encourage scientists to publish their astronomical observations and theoretical results in as much detail as possible. There is no restriction on the paper length and full experimental and methodological details, as applicable, should be provided. All papers will be peer reviewed promptly. On behalf of the distinguished members of the editorial board, I extend my welcome to all researchers working on these subjects to contribute to *Galaxies*.

Editors-in-Chief

Dr. Margo Aller

Department of Astronomy, University of Michigan, Ann Arbor, MI 48109-1042, USA

Dr. Jose L. Gómez

Instituto de Astrofísica de Andalucía (IAA-CSIC), Glorieta de la Astronomía S/N, 18008 Granada, Spain

Author Benefits

High Visibility:

indexed within Scopus, ESCI (Web of Science), Astrophysics Data System, INSPIRE, Inspec, and other databases.

Journal Rank:

JCR - Q2 (Astronomy and Astrophysics) / CiteScore - Q2 (Astronomy and Astrophysics)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 23.4 days after submission; acceptance to publication is undertaken in 4.8 days (median values for papers published in this journal in the first half of 2025).