Special Issue

Superfluidity and Superconductivity in Neutron Stars

Message from the Guest Editor

Formed in the aftermath of gravitational core-collapse supernova explosions, neutron stars contain matter crushed at densities exceeding that found inside the heaviest atomic nuclei and are, therefore, unique laboratories for exploring novel phases of matter under conditions so extreme that they cannot be reproduced on Earth. In particular, neutron stars are the only celestial bodies that are expected to be superfluids and superconducting. Although quantum condensates have been extensively studied in the laboratory, the properties of their stellar counterpart remain largely unknown. The main goal of this Special Issue is to review recent progress in the field, from both theoretical and observational points of view. For more information, please visit here.

Guest Editor

Prof. Dr. Nicolas Chamel

Institut d'Astronomie et d'Astrophysique, CP-226, Université Libre de Bruxelles, B-1050 Brussels, Belgium

Deadline for manuscript submissions

closed (15 February 2022)

Universe

an Open Access Journal by MDPI

Impact Factor 2.6
CiteScore 5.2

mdpi.com/si/45952

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

mdpi.com/journal/universe

Universe

an Open Access Journal by MDPI

Impact Factor 2.6
CiteScore 5.2

mdpi.com/journal/universe

About the Journal

Message from the Editor-in-Chief

The multidisciplinary journal *Universe* is aiming to follow and, hopefully, to lead to the largest extent as possible the ever-self renovating threads which weave mathematical theories with our understanding of the magnificent natural world. On behalf of all the distinguished members of the Advisory and Editorial Boards, I extend my welcome to this journal and look forward to hearing from the interested contributors and learning about their valuable research.

Editor-in-Chief

Prof. Dr. Lorenzo Iorio
Ministero dell' Istruzione e del Merito, Viale Unità di Italia 68, 70125 Bari, 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), Astrophysics Data System, INSPIRE, CAPlus / SciFinder, Inspec, and other databases.

Journal Rank:

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

MDPI