Special Issue

New Discoveries in Astronomical Data

Message from the Guest Editors

With the increase in astronomical data from ground- and space-based telescopes (e.g., SDSS, LAMOST, ZTF, Pan-STARRS, FAST, WISE, GAIA, JWST), astronomy enters a big data era. It is a great challenge for astronomers to handle and analyze such big data due to the complexity, heterogeneities, high dimension and massive volume of astronomical data. New data processing techniques and methods are needed and developing. Various feature extraction and feature selection methods are in bloom. Machine learning and deep learning have become the main tools to handle astronomical big data. Moreover, the coming of multi-messenger astronomy and time domain astronomy leads to more new astronomical discoveries. Special, rare and even new objects are present continuously. We welcome colleagues to submittheir new manuscripts on one or more of the following topicsfor this Special Issue:

- machine learning in astronomy
- discoveries: from radio to gamma-rays
- deep learning
- astrostatistics and astroinformatics
- data analysis: methods
- statistical: astronomical data bases

Guest Editors

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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
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