

# Special Issue

## Atomic and Molecular Data in Astronomy and Astrophysics

### Message from the Guest Editors

The use of atomic and molecular data for analysis in astronomy is rarely highlighted in the astronomical community due to their often-technical nature and the natural focus on the results from investigations of the studied objects. This special issue aims to give an outlet for making the recent developments more accessible and available to the astronomic community to both help bring into focus all these developments. Its scope includes calculations and experimental observations of parameters related to atomic transitions (line wavelength and intensity, transition probabilities, oscillator strengths, lifetimes, line broadening by external fields, etc.), the study of astrophysical plasmas, and atomic processes in general which contributes to astrophysical studies. Experimental observations that modify previously published conclusions on atomic data are also in the scope of this special issue. *Atoms* aims to give visibility to atomic spectroscopy as a tool for studying astronomical objects, drawing the attention of researchers from other fields of physics to the needs of this important area of knowledge.

### Guest Editors

Dr. Henrik Hartman

Dr. Cesar José Bonjuani Pagan

Dr. Mónica Raineri

Dr. Brian Thorsbro

### Deadline for manuscript submissions

closed (31 October 2024)

## Atoms

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## About the Journal

### Message from the Editor-in-Chief

The scope of *Atoms* is deliberately wide and encompasses a large part of theoretical and experimental atomic, molecular, nuclear, and chemical physics in order to encourage cross-disciplinary connections, while supporting the more traditional idea of individual subfields. The journal is also interested in papers concerning the computation and compilation of data related to applications in the above areas. Details of experimental methods and codes are welcome. Your research is taken seriously and peer-reviewed with care. I encourage you to contact me or any of the Editorial Board Members for further information.

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### Editor-in-Chief

Prof. Dr. Pascal Quinet

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