

Special Issue

Electronic Dynamics in Atomic and Molecular Collisions

Message from the Guest Editors

The study of electronic dynamics in atomic and molecular collisions sits at the heart of understanding matter and energy interactions. These processes, where the rapid rearrangement of electrons dictates outcomes like energy transfer, ionization, and fragmentation, are critical in diverse environments, from astrophysical plasmas to radiation damage and radiobiological processes. The field is currently being transformed by sophisticated experimental techniques, such as cold target recoil ion momentum spectroscopy (COLTRIMS) and ultrafast light sources, alongside cutting-edge theoretical and computational methods. This Special Issue aims to highlight the latest breakthroughs in unraveling the complex, time-evolving behavior of electrons during collisional events.

Guest Editors

Dr. Roberto Daniel Rivarola

Dr. Juan Manuel Monti

Dr. Michele Arcangelo Quinto

Dr. Emmanouil Benis

Deadline for manuscript submissions

30 June 2026

Atoms

an Open Access Journal
by MDPI

Impact Factor 1.5
CiteScore 2.9



mdpi.com/si/262959

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

[mdpi.com/journal/
atoms](https://mdpi.com/journal/atoms)



Atoms

an Open Access Journal
by MDPI

Impact Factor 1.5
CiteScore 2.9



[mdpi.com/journal/
atoms](https://mdpi.com/journal/atoms)



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.

Editor-in-Chief

Prof. Dr. Pascal Quinet

1. Physique Atomique et Astrophysique, Université de Mons, B-7000 Mons, Belgium
2. IPNAS, Université de Liège, B-4000 Liège, Belgium

Author Benefits

Open Access

– free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

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

Journal Rank:

CiteScore - Q2 (Nuclear and High Energy Physics)