



*atoms*

an Open Access Journal by MDPI



## Plasma Physics Highlights: Non-equilibrium Dynamics, Interfaces and Mixing

Guest Editor:

**Prof. Dr. Snezhana Abarzhi**

Faculty of Engineering and  
Mathematical Sciences, The  
University of Western Australia,  
Crawley, WA 6009, Australia

Deadline for manuscript  
submissions:

**closed (20 June 2025)**

### Message from the Guest Editor

Dear Colleagues,

We propose organizing a Special Issue: ‘Plasma Physics Highlights: Non-equilibrium Dynamics, Interfaces and Mixing’.

Non-equilibrium dynamics, interfaces and mixing play an important role in plasmas in high and low energy density regimes, at astrophysical and at atomic scales, in nature and technology. Examples include the instabilities and interfacial mixing in supernovae and in inertial confinement fusion, particle–field interactions in magnetic fusion and in imploding Z-pinchs, downdrafts in stellar interior and in planetary magneto-convection, plasma thrusters, nanofabrication and magnetic flux ropes and structures in the Solar corona and plasma instabilities in the Earth ionosphere.

This Special Issue would provide the opportunity to bring together scientists from different areas of plasma physics. It would serve to promote the exchange of ideas and to motivate the discussions of rigorous theoretical approaches and state-of-the-art numerical simulations along with advanced experimental techniques and technological applications.



[mdpi.com/si/172985](https://mdpi.com/si/172985)

# Special Issue



*atoms*



an Open Access Journal by MDPI

## 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

## 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.

## 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)

## Contact Us

---

*Atoms* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/atoms](http://mdpi.com/journal/atoms)  
[atoms@mdpi.com](mailto:atoms@mdpi.com)  
[X@Atoms\\_MDPI](https://twitter.com/Atoms_MDPI)