Special Issue

Atom and Plasma Spectroscopy

Message from the Guest Editor

Plasma spectroscopy is one of the oldest and most established diagnostic tools in astrophysics and plasma physics. Nowadays, by analysing the light emitted or absorbed by atoms and ions in plasma, spectroscopy reveals critical information about the plasma's properties, such as temperature, density, and composition. In plasma, numerous atomic excited states can exist simultaneously, making spectroscopic analysis complex. This calls for suitable theoretical solutions. In recent years, great progress has been made in precise ab initio structure calculations due to fast-growing computational powers and the development of new computational codes.

This Special Issue aims to create a space for sharing recent research developments interesting for the plasma research community, both related to astrophysics and artificial plasma (tokamak or laser-made).

The scope includes high-quality calculations and measurements of spectral parameters, such as line energy/wavelength, transition probabilities, oscillator strengths, linewidths, and excited-state lifetimes. Papers on the collisional–radiative modelling of ions in plasma are also welcome.

Guest Editor

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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

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