



atoms

Announcement of a Special Issue of *Atoms* on

Spectral Line Shapes in Astrophysics

Papers are invited for a special topical issue of *Atoms* on:

"Spectral Line Shapes in Astrophysics and Related Phenomena"

This special issue is open to all scientists who wish to submit an appropriate scientific paper related to the topic 'Line Shape in Astrophysics'.

The spectral lines, their widths, and shapes, are powerful tools for emitting/absorbing gas diagnostics in different astrophysical objects (from the Solar system to the most distant objects in the Universe - quasars). The emission/absorption lines of astrophysical objects are produced over a wide range of distances from an observer and under a wide range of physical and kinematical conditions. Therefore in astrophysical objects the lines from X-ray (Fe K) to the radio (radio recombination line) have been observed. On the other hand, the experimental and theoretical investigations of laboratory plasma have been applied in spectroscopic astrophysical research, especially atomic data needed for line shape calculations. Data on spectral lines and their profiles are also important for diagnostics, analysis and modelling of fusion plasma, laser produced plasma, lasers design and development and various plasmas in industry and technology like light sources based on plasmas or welding and piercing of metals by laser produced plasma. This Special Issue of *Atoms* will highlight the need for continuing research on the spectral line shapes and will review present investigation in astrophysics where spectral line shapes have been used as a tool to investigate physical and kinematical properties of celestial objects. Moreover, there will be a number of studies of spectral line shapes in laboratory plasma, fusion plasma, laser produced plasma and about atomic data needed for calculation of spectral line properties.

In fact all contributions related to the spectral line investigation in astrophysics are welcome, especially we encourage the participants of 11th Serbian Conference on Spectral Line Shapes in Astrophysics to submit appropriate manuscripts. Manuscripts must not have been submitted elsewhere. As noted above, submission of papers is open to the entire scientific community.

Dr. Milan S. Dimitrijević
Prof. Dr. Luka Č. Popović

Guest Editors

Submission

Manuscripts should be submitted online at www.mdpi.com by [registering](#) and [logging in to this website](#). Once you are registered, [click here to go to the submission form](#). Manuscripts can be submitted until the deadline. Papers will be published continuously (as soon as accepted) and will be listed together on the special issue website. Research articles, review articles as well as communications are invited. For planned papers, a title and short abstract (about 100 words) can be sent to the Editorial Office for announcement on this website.

Submitted manuscripts should not have been published previously, nor be under consideration for publication elsewhere (except conference proceedings papers). All manuscripts are refereed through a peer-review process. A guide for authors and other relevant information for submission of manuscripts is available on the [Instructions for Authors](#) page. *Atoms* is an international peer-reviewed Open Access quarterly journal published by [MDPI](#).

Please visit the [Instructions for Authors](#) page before submitting a manuscript. The [Article Processing Charge \(APC\)](#) will be waived for well-prepared manuscripts. English correction and/or formatting fees of 250 CHF (Swiss Francs) will be charged in certain cases for those articles accepted for publication that require extensive additional formatting and/or English corrections.

The deadline for submissions is 1st September 2017.