Special Issue

Applications of Spectroscopy in Astronomy Laboratory Based Experiments of Astrophysical Relevance

Message from the Guest Editor

Astrophysical studies progress via a huge variety of experiments and theoretical studies in nuclear physics. New possibilities are brought to the field by the emergence of high power laser facilities in the sub-PW to PW regimes. Those all-optical accelerator systems allow the production of intense gamma-ray bursts, as well as electron, and ion acceleration simultaneously. Thus they can provide hot plasma conditions for extremely short times in laboratory experiments. As the field is relatively new, we are dedicating this Special Issue to the collection and discourse of relevant studies. This includes advanced experimental strategies, their theoretical underpinning with large-scale simulations, and the development of detector concepts that can withstand the associated experimental conditions which are inherently interwoven with the high-intensity nature of the short laser pulses. Knowing that experimental data in the field is still sparse we are also happy to include cutting-edge project plans and technical design report (TDR)-like submissions.

Guest Editor
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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

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