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Status of The Eupraxia Design Study – Towards The Next Generation of Particle Accelerators

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Message from the Guest Editors

Dear Colleagues,

The EuPRAXIA consortium is preparing a conceptual design report of a highly compact and cost-effective European facility with multi-GeV electron beams using plasma as the acceleration medium. The accelerator facility will be based on a laser and/or a beam driven plasma acceleration approach and will be used for photon science, high-energy physics detector tests, and other applications, such as compact X-ray sources.

The aim of this Special Issue is to provide an overview of the current state of the design of the different elements of the EuPRAXIA facility, including simulations of different acceleration schemes, plasma structures, high-power lasers, and the development of possible applications like free-electron lasers and positron sources.

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Message from the Editor-in-Chief

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