FZJ | JuSPARC Seminar on

MONDAY, October 5 at 13:00 CEST

Prof. Paul Gibbon

Preparing the JuSPARC Femtofactory: Recent Work on Laser-Driven Radiation and Particle Sources at FZ-Juelich

The Jülich Short-Pulse Particle and Radiation Centre (JuSPARC) was officially inaugurated at the start of 2019 with the commissioning of its first laser, a Terawatt kHz system, providing an exciting new tool for users in and around FZJ for probing matter with high spatial and temporal resolution. Research on laser-driven particle and radiation sources at FZ-Juelich has also been pursued for a number of years prior to this event, and this talk will give an overview of some of the main achievements to come out of this ongoing 'preparatory' activity, which has been pursued at three separate institutes on the campus. In particular I will highlight recent work on electron acceleration from both gas and cluster targets, including novel all-optical injection schemes; theoretical and experimental studies of ion acceleration from helium targets aimed at generating polarized ion beams (a topic of a forthcoming seminar); and studies exploring potential THz, EUV and betatron radiation sources.

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