

Webinar

High Field Science using not-so-intense Lasers

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Accelerating electrons and ions in micrometric volumes is one of the major motivations for research on the interaction of intense femtosecond lasers with solid density plasmas. Two decades of research have firmly established the precedence of lasers with peak powers exceeding hundreds of terawatt for such bench-top acceleration schemes with MeV energies. In this thesis, we outline the first report of driving 100 keV ion beams with a hundredfold less intense lasers than any of the established scalings. We will attempt to understand the underlying acceleration mechanisms involved, the measurement strategies & the crucial role played by laser pre-pulse - otherwise avoided in laser-plasma experiments.

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11:00 AM