



DESY Seminar

15 May 2007, 17:00, DESY Hörsaal

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Laser Particle Acceleration

When laser pulses of relativistic intensity ($\geq 10^{18}$ Wcm⁻²) interact with matter, collective plasma effects generate electric fields on the order of 10^{12} V/m over distances of several millimeters. In a plasma wakefield accelerator these fields can be used to generate well collimated monoenergetic electron beams of energies up to 1 GeV and nC bunch charges. Recently, also monochromatic ion beams with similar bunch charges in the 1-10 MeV range were produced by laser irradiation of thin foils. Laser accelerators may have promising future applications as drivers for free electron lasers, electron photon colliders, or medical accelerators.

- Tea and cookies will be served at 16:45 in the lobby.
- After the seminar there is a chance for private discussions with the speaker over wine and pretzels also in the lobby.