



CONSIGLIO NAZIONALE DELLE RICERCHE
ISTITUTO NAZIONALE DI OTTICA

SEMINARIO

mercoledì 8 febbraio 2012 alle ore 11:30 – Aula 44
Area della Ricerca CNR di Pisa, - Edificio A, primo piano

Prof. Tomonau HOSOKAI

Photon Pioneers Center, Osaka University, Japan

Status of Laser Wake-Field Acceleration research at Photon Pioneers Center, Osaka University

Abstract.

The research activity on Laser Wake Field Acceleration (LWFA) at Photon Pioneers Center Osaka university will be introduced. Recently, we have installed new laser system (Ti:Sapphire, 40-TW, 800-nm , 25-fs, 10-Hz) and started LWFA experiments. Until now we have generated repeatable well-collimated electron beams with tightly focused laser pulses in a supersonic gas-jet. As a next step, we are preparing 2-beam-driven LWFA for staging acceleration. The key issues related to this scheme, pre-pulse control, pre-channel formation, asymmetrical supersonic gas-jet, chirped electron transport, etc are discussed in the talk. In addition, our CREST research aiming at ultra-short electron source for dynamic electron microscope is introduced.