

Dottorato di Ricerca in Fisica dell'Università degli Studi di Messina
11 Luglio 2011, ore 15.00, Aula E. Majorana, Dip.to di Fisica,
V.le F. Stagno d'Alcontres 31, S. Agata, Messina

Seminar title:

**Thomson parabola spectrograph in investigations of MeV energy ions
from laser plasma ion sources**

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Laser ion sources (LIS) already have found a wide applications in areas such as material modification, ion implantation, pulsed laser deposition. LIS can deliver ions with ionization states from $Z= 1$ up to 55, and energies ranges from hundreds of eV up to several MeV. Investigations of the interaction of laser radiation with solid targets is possible by using of Thomson parabola spectrograph (TPS). The operation principle of the TPS is based on the gradual passage of ions through parallel electric and magnetic fields. It is an excellent device, which is capable to give a general overview of the charge states and of the velocity (kinetic energy) distributions of all type of ions produced in a single laser shot only.