

Friday 23 September 2011
-Applications-

Chairman: **D. Giulietti**

- 9.00 **P. Di Luzzaro** (*Mitigation and selection of ion and particulate emission from Laser-plasma sources used for Extreme UltraViolet Lithography*)
- 9.30 **G. Bertuccio** (*Silicon Carbide Detectors for Laser-Generated Plasma Radiation*)
- 10.00 **G. Mondio** (*ZnO nanostructures produced by laser ablation in water: optical and structural properties*)
- 10.30 **L. Palladino** (*Analysis of the X-ray emission of a plasma Source with Yttrium and mylar target to be employed in a microbeam at 2.48 nm*)

11.00 **Coffee Break**

11.30 **Chairman: M. A. Mezzasalma**

Final remarks

12.00 **Bus transfer**

13.30 **Lunch**

15.00 **Tour in Syracuse**



Conference site: Manganelli's Palace, Catania

Organizing Committee

Dott. S. Gammino (INFN-LNS, Catania)
Prof. A.M. Mezzasalma (University of Messina)
Prof. V. Nassisi (University of Salento)
Prof. F. Neri (University of Messina)
Dr. S. Trusso (IPCF-CNR, Messina)
Prof. L. Torrisi (University of Messina)

Scientific Committee

Prof. A.M. Mezzasalma (Chair), University of Messina and INFN- Sez. Catania, Italy
Prof. D. Batani, University of Milano-Bicocca, Italy
Prof. D. Giulietti, University of Pisa, Italy
Dr. J. Krasa, ASCR, Prague, Czech Republic
Prof. P.M. Ossi, Politecnico di Milano, Italy
Dr. R. Pardo, Nat. Laboratory, Argonne, IL, USA
Prof. J. Wolowski, IPPLM, Warsaw, Poland
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Università del Salento
Dipartimento di Fisica



INFN
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di Fisica Nucleare

PPLA2011



Manganelli Palace, Catania, Italy

Wednesday 21 September 2011

-General Aspects-

8.00 **Registration**

9.00 **Welcome**

Chairman: L. Torrissi

9.40 **J. Wolowski** (*Studies of fast ion streams produced by high power laser at different target irradiation conditions*)

10.20 **D. Giulietti** (*Thomson Scattering in laser-produced plasma*)

11.00 **Coffee Break**

Chairman: S. Gammino

11.30 **V. Nassisi** (*Characterization of Laser Plasma by Cu, Cu98/Be2 and Cu96/Sn4 alloy Targets*)

11.50 **E. Fazio** (*Nonlinear optical effects from Au nanoparticles prepared by laser plasmas in water*)

12.10 **A. Ferrari** (*Radiation field characterization and shielding studies for the ELI Beamlines Facility*)

12.30 **L. Laska** (*Studies of intense-laser plasma instabilities*)

13.00 **Lunch**

Chairman: J. Wolowski

15.30 **N. Gambino** (*Investigation of laser produced counter-propagating plasmas generated from the ablation of thick and thin Aluminium targets*)

15.50 **A. Velyhan** (*Acceleration Technique by Laser Interaction upon Doped Targets*)

16.10 **F. Caridi** (*Ion and atomic characterization of laser-generated plasmas at $5 \cdot 10^9$ W/cm² pulse intensity*)

16.30 **L. Volpe** (*Laser-driven Proton Imaging for Inertial Confinement Fusion*)

16.50-18.00 **Coffee Break & Poster section**

18.00 -19.30 **Catania's Baroque City Tour**

Thursday 22 September 2011

-General Aspects, Applications & Posters-

Chairman: F. Neri

9.00 **J. Krasa** (*Gaussian energy distribution of fast ions emitted by laser-produced plasmas*)

9.40 **P. M. Ossi** (*Evolution of β -SiC in laser-generated plasmas*)

10.20 **D. Margarone** (*Influence of the ablation threshold fluence on laser-driven acceleration*)

11.00 **Coffee Break**

Chairman: V. Nassisi

11.30 **L. Torrissi** (*Proton acceleration driven by high intensity laser pulses irradiating thin hydrogenated targets*)

11.50 **L. Velardi** (*Characterization of Accelerated Ion beams by Laser Ablation*)

12.10 **F. Barreca** (*Tribological and mechanical behaviors of CN_x/CN_y bilayer films deposited by laser ablation*)

12.30 **M. Rosinski** (*Laser generated Ge ions accelerated by additional electrostatic field for implantation technology*)

13.00 **Lunch**

Brief Posters Presentation (10 min including questions)

Chairman: J. Krasa

15.30 **L. Torrissi** (*Deuterium-deuterium nuclear reaction induced by high intensity laser pulses*)

15.40 **M. Cutroneo** (*Proton emission from resonant laser absorption and self-focusing effects from hydrogenated structures*)

15.50 **R.C. Ponterio** (*Surface-enhanced Raman scattering study of organic pigments using silver and gold nanoparticles prepared by pulsed laser ablation*)

16.00 **D. Delle Side** (*Protons production by TiH solid disks via laser ablation*)

16.10 **V. Brancato** (*Applications of laser welding in thermoplastic materials for engineering joints*)

16.20 **L. D'Urso** (*The effects of liquid environments on the optical Properties of linear carbon chains prepared by laser ablation generated plasmas*)

16.30 **C. Verona** (*Analysis of laser-generated plasma ionizing radiation by synthetic single crystal diamond detectors*)

16.40 **Chairman's Poster Conclusions**

Chairman: S. Trusso

16.50 **M. Cutroneo** (*Laser ablation coupled to mass quadrupole spectrometer (LAMQS) and X-rays fluorescence for applications in Cultural heritage*)

17.00 **T. Serafino** (*XPS, XRF-SEM and LAMQS depth patina profiles of ancient silver coin*)

17.10 **G. Buccolieri** (*Laser cleaning of bronze bell*)

17.20 **M. Maggiore** (*Status Report of the Thomson Spectrometer Construction for LILIA experiment*)

17.30 **T. Palchan** (*Plans for Laser Ablation of Actinides into an ECRIS for Accelerator Mass Spectroscopy*)

17.40 **V. Nassisi** (*Antimicrobial UHMWPE by implantation of Ag and Cu Ions accelerated by a double stages LIS*)

17.50 **F. Di Bartolo** (*Formation of a non-equilibrium plasma due to electrostatic waves generation in a non uniform magnetic field*)

18.00 **Chairman's Poster Conclusions**

18.10-19.30 **Poster section**

21.00 **Social Dinner at the**

Manganelli's Palace Garden, Catania