

High-Field Laser Plasma Interaction EPS DPP satellite workshop

The EPS DPP satellite workshop on High-Field Laser-Plasma Interaction (HFLPI), as a satellite meeting of the 46th European Physical Society Conference on Plasma Physics, is intended to be the first step to increase the visibility of the high field physics within the European physics community and create a special subject line in the section Beam and Plasma Inertial Fusion (BPIF) of the Division of Plasma Physics (DPP) of the EPS.

It inscribes itself in the context of the forthcoming major high-power laser facilities such as APOLLON in France, three ELI pillars in Europe and similar installations elsewhere in the world.

These new scientific infrastructures will open up completely new fields of research in the interaction of electromagnetic radiation with plasmas and require a corresponding European forum.



BUILDING 1 'Rettorato' - Hall REGISTRATION COFFEE BREAK & LUNCH POSTER SESSION

BUILDING 3 'Gino Cassina' ROOM S02 ORAL SESSIONS

POLITECNICO DI MILANO Piazza Leonardo Da Vinci 32 20133 Milan, Italy



Wi-Fi / WIRED ACCESS TEMPORARY GUEST CREDENTIALS Event: HFLPI2019 - 11/07/2019 - 13/07/2019 Login: e195597 Password: 22AD6HJE

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EPS DPP satellite workshop on High-Field Laser-Plasma Interaction

July 13th, 2019







European Research Council Established by the European Commission ERC-2014-CoG No. 647554



HFLPI

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PROGRAM Saturday July 13th 2019

| | 8.30-9.30 | REGISTRATION | | |
|---|-------------|---|---|--|
| | 9.30-10.00 | WELCOME & OPENING | | |
| - | | MICKAEL GRECH | LULI, École Polytechnique, CNRS (France) | |
| | | MARIJA VRANIC | Instituto Superior Técnico (Portugal) | |
| _ | | MATTEO PASSONI | Politecnico di Milano (Italy) | |
| | 10.00-11.00 | UHI & EXTREME FACILITIES | | |
| | | LUCA VOLPE | CLPU (Spain) | |
| | | MICKAEL GRECH | Apollon (France) | |
| | | ONDREJ KLIMO | ELI Beamlines (Czech Republic) | |
| | | KAZUO TANAKA | ELI Nuclear Physics (Romania) - presented by O. Klimo | |
| | | HYUNG TAEC KIM | CoReLS (South Korea) | |
| | | ANNA GRASSI | SLAC (USA) | |
| | 11.00-11.30 | COFFEE BREAK | | |
| | 11.30-13.10 | STRONG-FIELD LASER-PLASMA INTERACTION | | |
| | | LIHUA CAO, IAPCM (China) Improvement of energetic electrons and protons by laser-plasma interactions with an external magnetic field | | |
| | | MARTIN MATYS, ELI Beamlines (Czech Republic) Double layer target with interface modulations for laser acceleration of collimated ion beams | | |
| | | ARIANNA FORMENTI, Politecnico di Milano (Italy) Interaction between superintense laser fields and nanostructured plasmas | | |
| | | BERTRAND MARTIN Synchrotron emissio | NEZ, LULI, École Polytechnique (France) on from nanowire array targets irradiated by ultraintense laser pulses | |

ARKADY GONOSKOV, University of Gothenburg (Sweden) Laser-particle collider for multi-GeV photon production

| 13.10-14.10 | LUNCH | | |
|---------------|--|--|--|
| 14.10-15.10 | POSTER SESSION | | |
| 1 | OLIMPIA BUDRIGA, INFLPR (Romania) One order of magnitude enhancement of laser intensity with a single re-entrant micro-cone target in th petawatt regime | | |
| 2 | BERTRAND MARTINEZ, LULI, École Polytechnique (France) High energy radiation from nanostructured and thin targets driven by ultra intense lasers | | |
| 3 | ESMAT GHORBANPOUR, University of Guilan - UNIMIB (Iran) Two-temperature one-dimensional ignition conditions for magnetized fusion cylindrical targets | | |
| 4 | JIAN FUH ONG, ELI Nuclear Physics (Romania) Feasibility studies of all-optical and compact γ-ray blaster by petawatt-class laser pulse and its application | | |
| 5 | MONA NIROOZAD, Arak University (Iran) Cylindrical fast electron beam in a plasma density gradient | | |
| 6 | ARIANNA FORMENTI, Politecnico di Milano (Italy) Modeling nanostructured plasmas for superintense laser-plasma interaction experiments | | |
| 7 | MICKAEL GRECH, LULI, École Polytechnique, CNRS (France) The open-source PIC code SMILEI: Physics modules & HPC capabilities Teaching plasma physics with the open-source PIC code SMILEI | | |
| 8 | FABRIZIO DEL GAUDIO, Instituto Superior Técnico (Portugal) Wakefield acceleration by incoherent radiation | | |
| 15.10-15.30 | COFFEE BREAK | | |
| 15.30-17.10 | STRONG-FIELD QUANTUM ELECTRODYNAMICS | | |
| | IGOR KOSTYUKOV, Lobachevsky University (Russia) Spatio-temporal dynamics of QED cascade in the laser field and cascade growth rate | | |
| | FABRIZIO DEL GAUDIO, Instituto Superior Técnico (Portugal) Disruption beamstrahlung and pair-production in beam-beam collisions | | |
| | VITALY YAKIMENKO, SLAC (USA) Prospect of Studying Nonperturbative QED with Beam-Beam Collisions | | |
| | ARSENY MIRONOV, MEPhI (Russia) Radiation corrections in non-pertirbative regime of QED | | |
| | TOBIAS PODSZUS, Max Planck Institute for Nuclear Physics (Germany) High-energy behaviour of strong-field QED in an intense plane-wave | | |
| 17.10 - 17.30 | CLOSING | | |
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