



Contribution ID: 110

Type: **Invited oral**

The Low Density Matter beamline at FERMI: recent results and future perspectives

Wednesday, 27 June 2018 10:00 (30 minutes)

The Low Density Matter (LDM) beamline of the Free Electron Laser FERMI in Trieste has been open to Users since December 2012. Members of the atomic-, molecular-, and cluster-science community worldwide have exploited its high-intensity ultrafast pulses for spectroscopy experiments. FERMI is a seeded source, in fact the only one operating in its wavelength range (100 nm–4 nm), and this results in a number of unique features, notably: stable synchronization, precise tunability, and pulse sculpting.

Based on these features an increasing number of experiments have been designed and performed, ranging from nonlinear light-matter interactions to single-shot imaging. I will present the opportunities offered by the LDM beamline, illustrated by recent results of selected experiments, in particular ultrafast chemical dynamics, and control of the relative phase of commensurate wavelengths. Finally I will discuss future developments.

Primary author: CALLEGARI, Carlo (Elettra Sincrotrone Trieste)

Presenter: CALLEGARI, Carlo (Elettra Sincrotrone Trieste)

Session Classification: Atomic and Molecular Physics