

IRIDE: An Interdisciplinary Research Infrastructure based on Dual Electron linac&laser

Monday, 3 June 2013 18:30 (20 minutes)

We describe in this talk a preliminary proposal of a new large infrastructure for fundamental and applied physics research. Conceived as an innovative and evolutionary tool also for multi-disciplinary investigations in a wide field of scientific, technological and industrial applications, it will be a high intensity “particle beams factory”, based on a combination of a high duty cycle radio-frequency superconducting electron linac and of a high energy laser. It will be able to produce a high flux of electrons, photons (from infrared to γ -rays), neutrons, protons and eventually positrons and muons, that will be available for a wide national and international scientific community interested to take profit of the most worldwide advanced particle and radiation sources.

Primary author: FERRARIO, Massimo (LNF)

Presenter: FERRARIO, Massimo (LNF)

Session Classification: WG4 - Future accelerator concepts incl. gg, beam transport (applications)

Track Classification: WG4 future - Future accelerator concepts incl. gg, beam transport (applications)