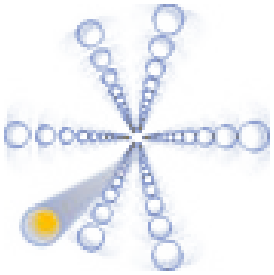

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PS3-27 Near-Field Studies of Coherent Transition and Diffraction Radiation

Thursday, 9 October 2014 17:00 (1h 30m)

Advanced accelerator technology, based on plasma structures, produce high brightness electron beams, which can be used to drive advanced radiation sources. Indeed, electron beams to be injected into the plasma and accelerated in the plasma channel are characterized by small transverse size and ultra-short time duration, allowing the production of coherent radiation in the THz range. In present work we examine the near field distribution of both CTR and CDR as generated by an electron beam under conditions similar to those of beams extracted from plasma, i.e around 200 pC in 100 fs rms bunch duration.

Primary author: SHPAKOV, Vladimir (LNF)

Co-authors: CIANCHI, Alessandro (ROMA2;LNF); MOSTACCI, Andrea (ROMA1;LNF); CHIADRONI, Enrica (LNF); GIORGIANNI, Flavio; FERRARIO, Massimo (LNF); PETRARCA, Massimo (LNF); CASTELLANO, Michele (LNF); POMPILI, Riccardo (LNF); LUPI, Stefano (ROMA1); DABAGOV, Sultan (LNF)

Presenter: SHPAKOV, Vladimir (LNF)

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