

GFA and SwissFEL Accelerator Seminar

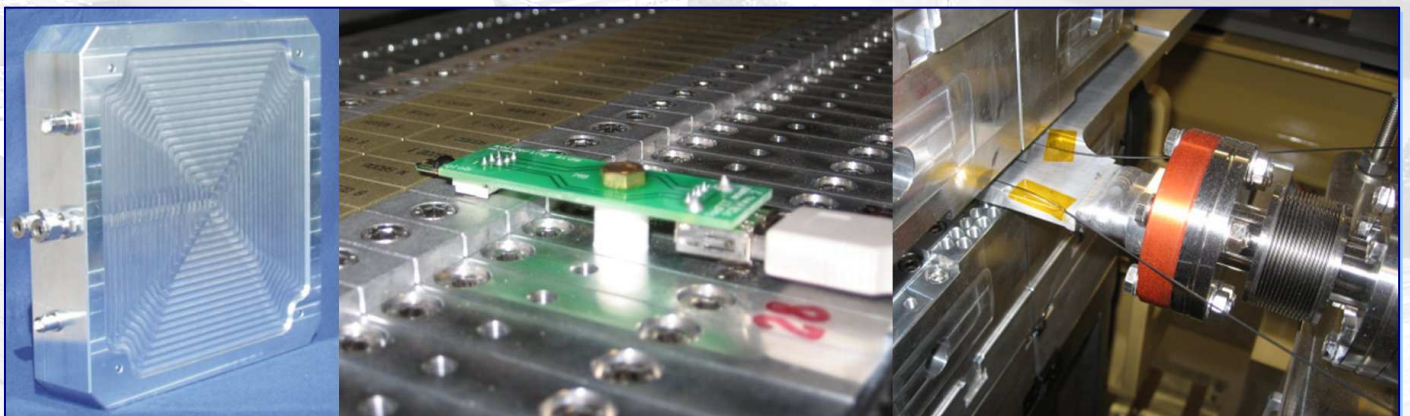
Machine Protection for FERMI@Elettra

Monday, March 12th, 2012, at 4 pm, WBGB/019

Dr. Lars Fröhlich
Sincrotrone Trieste, Italy

A machine protection system guards an accelerator from damage by its own beam. Full-featured, active systems have traditionally only been implemented at machines carrying fairly high beam powers. Single-pass FELs are an exception, because there is considerable concern about damaging the permanent undulator magnets beyond their tight field tolerances.

The talk gives an overview of the machine protection system implemented at FERMI@Elettra and of its main diagnostic subsystems: beam loss position monitors based on optical fibers, ionization chambers, and an online dosimetry system using electronic MOSFET sensors. The practical experience from the first year of FEL operation is discussed.



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