PAUL SCHERRER INSTITUT

PHOTON SCIENCE - SEMINAR

A 1-D Imaging RIXS Spectrometer for Ultra-fast Phenomena and Nonlinear Science at European XFEL

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DATE:	Friday, 28 March 2014
Coffee:	11:00 h
SEMINAR:	11:15 h
PLACE:	WBGB/019

Abstract:
A conceptual design of a grating spectrometer for soft X-ray emission with capability for lateral imaging of the source will be described. The instrument is intended for time resolved experiments at the SQS experiment station at the European XFEL. Time resolution in the femtosecond range is achieved by high resolution imaging of the FEL beam-sample interaction region, thus establishing a time scale in the direction of the propagating beam. Grating dispersion is used for spectral analysis in the perpendicular direction. In order to allow high temporal resolution and large time window Wolter optics is used. The additional possibility to use the imaging capability for efficient RIXS maps recording will also be discussed.

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