

SATELLITE WORKSHOP - Photon Science



Tutorial to X-ray Photon Correlation Spectroscopy – how to probe dynamics from 10^{-9} to 10^3 s on nanometer length scales in condensed matter

Thursday, 28 January 2016

Seminar Room L202, Bldg. 48e

The workshop will concern an introduction to X-ray Photon Correlation Spectroscopy (XPCS) with special attention on strategies how to plan, perform and analyze XPCS experiments. Science talks will cover examples of classical and state-of-the-art XPCS experiments such as (glassy) dynamics in soft matter systems, particles in fields and XPCS applications in rheology, accompanied by an overview of XPCS possibilities at beamline P10. In addition, new concepts will be discussed ranging from low-intensity XPCS at large wave vector transfers as well as possibilities of XPCS at free-electron laser facilities, in particular the European XFEL. Users that want to obtain a decent overview on the XPCS technique and plan to extent their portfolio to studying dynamics by means of XPCS are especially encouraged to join the workshop.

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PROGRAMME

14:00	Introduction to XPCS	Michael Sprung	DESY
14:30	Multi-speckle XPCS	Anders Madsen	European XFEL
15:00	Low intensity and double shot XPCS for radiation-sensitive materials	Christian Gutt	Uni Siegen
15:30	<i>Coffee break</i>		
16:00	Sequential XPCS at FEL sources	Felix Lehmkuhler	DESY
16:20	Double pulse XPCS at FELs using hard X-ray delay line	Wojciech Roseker	DESY
16:40	Probing direction-dependent dynamic processes by means of XPCS	Joachim Wagner	Rostock
17:00	Connecting structure, dynamics and viscosity in sheared soft colloidal liquids	Eric Stellamanns	DESY
17:20	Nanoscale fluctuations in complex materials by XPCS	Alessandro Ricci	DESY
17:40	Wrap-up and ideas for continuation of workshop and tutorial series		

Update: 14 January 2016