



# Workshop on SAXS@XFELs and HI & HE laser driven matter

## Thursday 4 November 2021

**Talks: GISAXS, Machine Learning, openPMD 1 - Building 106, Hörsaal room 255 (14:15 - 17:40)**

time	[id] title	presenter
14:15	[2] Surface dynamics of warm dense plasmas upon high-intensity laser irradiation investigated by grazing-incidence x-ray surface scattering	RANDOLPH, Lisa
14:50	[11] Using GISAXS to observe Density Oscillation in Multi Layer Targets	PASCHKE-BRUEHL, Franziska-Luise
15:10	Discussion	
15:15	Break	
15:25	[23] Overview to ML-based reconstruction techniques	HOFFMANN, Nico
15:45	[9] Machine Learning in GISAXS reconstruction	LIU, Yichao
16:05	[4] Reconstruction of SAXS Data using Neural Networks	THIESSENHUSEN, Erik
16:25	Discussion/Break	
16:40	[19] openPMD - A Scientific, Community Meta-Data Standard	HÜBL, Axel
17:05	[26] Laser driven magnetic filaments in relativistically transparent plasmas as a platform for high-field science	AREFIEV, Alexey

# Friday 5 November 2021

## Talks: SAXS, openPMD 2 - Building 106, Hörsaal room 255 (09:00 - 17:00)

time	[id] title	presenter
09:00	[14] Targetry for revealing laser-driven nanostructures in SAXS and GISAXS experiments with high repetition rate	RÖDEL, Christian
09:25	[7] Targets for SAXS experiments	PRENCIPE, Irene
09:50	[3] SAXS mirror	SMID, Michal
10:15	Discussion	
10:20	Break	
10:35	[8] Diamond formation kinetics in shock-compressed C-H-O samples via small angle X-ray scattering and X-ray diffraction	HE, Zhiyu
11:00	[24] SAXS measurement of sub-micron solid-density columnar plasma expansion induced by a high-intensity laser at SACLA	OTA, Masato
11:25	[21] Potential benefits of electronic damage in x-ray imaging	KUSCHEL, Stephan
11:50	[20] Benchmarking autonomous scattering experiments illustrated on TAS	PARENTE
12:15	Discussion	
12:20	Break	
13:10	[25] Ionic liquids with/without small water content confined in porous glasses	FRIELINGHAUS, Henrich
13:35	[5] Synthetic probing of ionization dynamics in the solid density plasmas driven by relativistic laser pulses using resonant SAXS	HUANG, Lingen
14:00	[15] Combined single-shot Small Angle X-Ray Scattering and Phase Contrast Imaging in ultra-intense laser-matter interactions at euXFEL	LASO GARCIA, Alejandro
14:25	[16] Considerations for single-pulse phase contrast imaging at HED	HAGEMANN, Johannes
14:50	Discussion	
14:55	Break	
15:10	[18] Asymmetries in resonant SAXS	KLUGE, Thomas
15:30	[13] Probing laser-solid interactions with Resonant Small-Angle X-ray Scattering	GAUS, Lennart
15:50	[10] X-ray radiation transport in GPU accelerated Particle In Cell simulations	ORDYNA, Pawel
16:10	[22] openPMD	PÖSCHEL, Franz
16:30	Discussion	
16:40	Wrap up, summary & closing remarks	