



# SATELLITE WORKSHOP - Photon Science

## SAXS/WAXS/GISAXS@DESY

**Wednesday, 28 January 2026**

**CSSB - Auditorium, Bldg. 15**

This workshop addresses current and potential users of small-angle X-ray scattering at PETRA III and PETRA IV. It is intended to present and discuss the status and perspectives of the experimental facilities and recent as well as planned user activities. It shall foster communication among the users and identify common interests.

Organisers: Sarathlal Koyiloth Vayalil, Sylvio Haas,  
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### PROGRAMME

10:00-10:05	10:00-10:05	Welcome	Stephan V Roth
<b>Session I</b>	<b>Processing of materials</b>		<i>Chair: Sarathlal K Vayalil</i>
10:05	10:05	The High-Resolution Diffraction Beamline P08: current status and outlook	Florian Bertram
10:20	10:20	Recent development of experimental setups for process- and deformation-induced structure formation in polymers	Eric Euchler/ Anna Sambale
10:35	10:35	In situ & operando probing of nanoparticle processing	Martin Shroer
10:50	10:50	Structural studies in reprocessable vitrimer nanocomposites	Vaishnav B
11:05-11:30		<b>Coffee break</b>	
<b>Session II</b>	<b>Bio materials</b>		<i>Chair: Florian Bertram</i>
11:30	11:30	SAXSMAT beamline P62 - current status and future perspectives	Sylvio Haas
11:45	11:45	Exploring extracorporeal membrane oxygenation thrombi using small angle x-ray scattering and scanning electron microscopy	Dr. Sheran Nanayakkara
12:00	12:00	Linking the bone ultrastructure and mechanical properties of bone tissue around degradable implant materials.	Sven Schimek
12:15	12:15	Biopolymer-Templated Hierarchical 3D-Structured Gold Nanoparticle / Graphene Oxide Hybrid Materials for Surface-Enhanced Raman Scattering (SERS)	Yingjian Guo
12:30	12:30	Multiscale Orientation Mapping: The SAXS Tensor Tomography Setup at SAXSMAT	Andre Conceicao
12:45		<b>Lunch and workshop photo</b>	
<b>Session III</b>	<b>Energy/Hybrid materials</b>		<i>Chair: Stephan V. Roth</i>
13:45	13:45	P03- A flexible X-ray scattering beamline of PETRA-III for studying nanostructure dynamics under in situ/in-operando conditions	Sarathlal Koyiloth Vayalil
14:00	14:00	Multimodal in-situ studies during laser annealing of hybrid metal halide perovskite thin films	Peter Müller-Buschbaum
14:15	14:15	Multimodal In Situ and Operando X-ray Scattering Studies of Perovskite Solar Cells	Kun Sun
14:30	14:30	Real-Time GIWAXS Investigation of Structural Evolution in All-Solid-State Lithium Batteries	Yuxin Liang
14:45	14:45	Resonant GISAXS on self-assembled magnetoresistive multilayer nanowires	Kai Schrage
15:00-15:30		<b>Coffee break</b>	
<b>Session IV</b>	<b>Advances in characterization and machine learning for materials</b>		<i>Chair: Sylvio Haas</i>

15:30	Biohybrid film formation revealed by machine-learning assisted GISAXS analysis
15:45	Deep Learning-Driven Grazing Incidence Small-Angle X-ray Scattering Data Processing for Nanostructure Characterization
16:00	Element-selective disorder determination in ternary metal nitrides
16:15	P03 Nanofocus Endstation of the line: Current status and recent developments

***Conclusion***

Julian Heger

Yufeng Zhai

Jagadesh K. Kesavan

Anton Davydok