

GISAXS2025 Program

Oct. 27th, 2025 / FLASH seminar room (Bldg. 28c, 2. floor)

09:00-10:30 Arrival and registration

10:30-10:40 Opening & Welcome (Stephan Roth, DESY & KTH, and Peter Müller-Buschbaum, TUM)

Session 1 – Basic Introduction (Chair: Stephan V. Roth)

10:40-11:25 Xinhui Lu, Chinese University of Hong Kong (PRC): ***Understanding the crystalline and amorphous morphology of organic solar cells using grazing-incidence small-angle X-ray and neutron scattering techniques***

11:25-12:00 Peter Müller-Buschbaum, TUM (GER): ***Basic introduction to GISAXS and GISANS***

12:00-12:35 Dileep Kumar, UGC Indore (IND): ***Functional magnetic thin films and GISAXS measurements***

12:35-14:00 Lunch @ DESY / Business lunch

Session 2 – Soft Matter & Advanced deposition (Chair: Stephan V. Roth)

14:00-14:45 Adrian Rennie, Uppsala (SWE): ***Neutron Scattering from Soft Matter at Interfaces – Challenges and Potential***

14:45-15:20 Heinz Amenitsch, U Graz (A): ***Electrodeposition of mesostructured materials studied with GISAXS***

15:20-15:30 Group photo

15:30-16:15 Coffee break & Discussion

Session 3 – Soft X-rays & Advancing data analysis (Chair: Peter Müller-Buschbaum)

16:15-16:50 Cheng Wang, LBNL (US): ***Pattern-Enhanced Resonant Soft X-ray Scattering for Probing Buried Interfaces with High Spatial and Temporal Resolution***

16:50-17:25 David Kosbahn, TUM (GER): ***Analyzing Large Grazing-Incidence X-Ray Scattering Datasets Using INSIGHT***

Session 4 – Bio- and hybrid materials (Chair: Peter Müller-Buschbaum)

17:25-18:00 Stephan V. Roth, DESY&KTH (GER&SWE): ***GISAXS and GISANS investigation on hybrid, bio-based thin films***

18:00-18:35 Torbjörn Pettersson, KTH (SWE): ***In situ GISAXS on cellulose-water interaction***

18:35-19:00 Break & Discussion

19:00-21:00 Poster session with snacks

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Session 5 – Future Challenges I (Chair: Stephan V. Roth)

09:00-09:45 Alexander Hexemer, ALS (USA), **Challenges and Opportunities in bringing Machine Learning to Scattering**

09:45-10:20 Renjun Guo, KIT (GER): **Advanced GISAXS/GIWAXS characterizations for novel PV technology**

10:20-11:00 Coffee break & Discussion

Session 6 – Future Challenges II (Chair: Peter Müller-Buschbaum)

11:00-11:35 Sarathlal Koyiloth Vayalil, DESY&UPES (GER&IND): **In-situ GISAXS growth investigation of ultrathin magnetic films potential for spintronic applications**

11:35-12:10 Apostolos Vagias, ILL (FRA): **GISANS under pressure**

12:10-13:30 Lunch @ DESY / Flash

Session 8 – Towards hands-on training (Chair: Peter Müller-Buschbaum)

13:30-14:00 **P03/MiNaXS - the micro-and nano-focus X-ray scattering beamline at PETRAIII** (Sarathlal Koyiloth Vayalil)

14:00-14:20 **General safety training** (Stephan V. Roth)

14:20-14:45 Division into training groups A/B/C/D

14:45-15:00 Break

Training sessions 28th and 29th October 2025

Notice for preparation of training session:

1. Insight

- a. Please download and install via
<https://www.ph.nat.tum.de/en/functmat/forschung-research/insight/>
- b. Follow the instructions on the website.
- c. See also: M. A. Reus, L. K. Reb, D. P. Kosbahn, S. V. Roth and P. Müller-Buschbaum, J. Appl. Crystallogr., 2024, 57, 509–528.

2. DPDAK

- a. You will be provided a download link
- b. No additional python installation is required here.
- c. See also: G. Benecke, W. Wagermaier, C. Li, M. Schwartzkopf, G. Flucke, R. Hoerth, I. Zizak, M. Burghammer, E. Metwalli, P. Müller-Buschbaum, M. Trebbin, S. Förster, O. Paris, S. V. Roth and P. Fratzl, J. Appl. Crystallogr., 2014, 47, 1797–1803

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15:00- Training sessions TR1-4 (until Oct. 29th, 2025); soft drink available at training stations

15:00-17:00 Training session TR1

Insight – A / David Kosbahn/Xinyu Jiang: **Seminar room tba**

DPDAK – B / Yufeng Zhai/Shouzheng Chen: **Seminar room tba**

Visit of PETRA III – C / Sarathlal Koyiloth Vayalil: **Beamline P03, sector 2, Bldg. 47c**

Break - D

17:00-19:00 Training session TR2

Insight – D / David Kosbahn/Xinyu Jiang: **Seminar room tba**

DPDAK – C / Yufeng Zhai/Shouzheng Chen: **Seminar room tba**

Visit of PETRA III – B / Sarathlal Koyiloth Vayalil: **Beamline P03, sector 2, Bldg. 47c**

Break – A

20:00-22:00 Conference Dinner @ DESY

Oct. 29th, 2025

Training sessions

09:00—11:00 Training session TR3

Insight – B / David Kosbahn/Xinyu Jiang: **Seminar room tba**

DPDAK – A / Yufeng Zhai/Shouzheng Chen: **Seminar room tba**

Visit of PETRA III – D / Sarathlal Koyiloth Vayalil: **Beamline P03, sector 2, Bldg. 47c**

Break – C

11:00-13:00 Training session TR4

Insight – C / David Kosbahn/Xinyu Jiang: **Seminar room tba**

DPDAK – D / Yufeng Zhai/Shouzheng Chen: **Seminar room tba**

Visit of PETRA III – A / Sarathlal Koyiloth Vayalil: **Beamline P03, sector 2, Bldg. 47c**

Break – B

13:00-14:00 Lunch @ DESY

Session 6: Closing session

14:00-15:00 Closing remarks (organizers)

15:00 End of Workshop