

Symposium Laser Driven X-Rays: Generation and Application (SYLX)

jointly organised by
 the Short Time-scale Physics and Applied Laser Physics Division (K) and
 the Quantum Optics and Photonics Division (Q)

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The ongoing development of laser technology opens up promising prospects for the demonstration of X-ray sources with a power and brilliance that significantly exceed current electronic sources. Using ultrashort pulse laser radiation with relativistic intensities, hot electrons are generated in liquid metal targets, which lead to the emission of X-rays. The creation of brilliant X-ray sources in tabletop size opens up the possibility of widespread use and significant innovations in various areas of application, such as high-resolution X-ray imaging, X-ray diffractometry, and X-ray spectroscopy. In the symposium, partners from the ongoing BMFTR-funded XProLas project will report on the current status.

Overview of Invited Talks and Sessions

(Lecture hall RW1)

Invited Talks

SYLX 1.1	Fri	14:30–15:00	RW 1	Laserstrahlquellen als Treiber für Sekundärstrahlquellen — •TORSTEN MANS, DOMINIK BAUER, THOMAS METZGER, DOMINIK ERTEL, CLAUS SCHNITZLER, TINO EIDAM
SYLX 1.2	Fri	15:00–15:30	RW 1	Development and Integration of Novel LPP Radiation Sources for Enhanced Characterization and Industrial Application — LION GÜNSTER, LUKE PETERSEN, PHILIP MOSEL, PEER BIESTERFELD, SVEN FRÖHLICH, JOSE MAPA, GRETA PARUSCHKE, PIA KOOPMANN, BIANCA IWAN, UWE MORGNER, •MILUTIN KOVACEV
SYLX 1.3	Fri	15:30–16:00	RW 1	Near-relativistic ytterbium fiberlaser plasma source for high-flux hard X-ray generation from a liquid-metal jet — •ROBERT KLAS, MAXIMILIAN BENNER, MOHAMMED ALMASSARANI, MAXIMILIAN KARST, LUCAS EISENBACH, PHILIPP GIERSCHKE, WARUNYA RÖDER, ARNO KLENKE, JAN ROTHARDT, JENS LIMPERT
SYLX 1.4	Fri	16:00–16:30	RW 1	Laser-driven X-ray generation for industrial applications — •JOHANNES MAXIMILIAN EBERT, KLAUS BERGMANN, SARAH KLEIN, MARTIN TRAUB, JOCHEN VIEKER, STEPHAN HERMAN WISSENBERG, HANS-DIETER HOFFMANN

Sessions

SYLX 1.1–1.4	Fri	14:30–16:30	RW 1	Symposium Laser Driven X-Rays: Generation and Application
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