

Paper #	First Name	Last Name	Company	Title	Duration	Start	Finish
All Times are local time in Aachen, Germany.							
From October 23-25, 2023 workshop is in-person only. On October 21-22, 2023 Short Courses will be held on-line only, as live events.							
<i>Version: September 27, 2023. For questions or comments please contact info@euvlitho.com</i>							
Short Course							
2:00 PM, Sunday, October 21, 2023, Aachen, Germany (Course is held online Only)							
Short Course: EUV Lithography							
<i>Instructors: Vivek Bakshi (EUV Litho, Inc.), Patrick Naulleau (CXRO), Sangsul Lee (POSTECH) and Sascha Migura (Carl Zeiss)</i>							
<i>EUVL Short Courses and EUVL Workshop require separate registrations. Please visit www.euvlitho.com for information.</i>							
				AV Test and Speaker Check-in	0:15	2:00 PM	2:15 PM
		Vivek Bakshi	EUV Litho Inc.	Lecture	1:30	2:15 PM	3:45 PM
				Break	0:15	3:45 PM	4:00 PM
		Sangsul Lee	POSTECH	Lecture	1:30	4:00 PM	5:30 PM
				Break	0:15	5:30 PM	5:45 PM
		Patrick Naulleau	CXRO	Lecture	1:30	5:45 PM	7:15 PM
				Break	0:15	7:15 PM	7:30 PM
		Sascha Migura	Carl Zeiss	Lecture	1:30	7:30 PM	9:00 PM
Short Course Adjourned							

Paper #	First Name	Last Name	Company	Title	Duration	Start	Finish
Short Course							
2:00 PM, Sunday, October 22, 2023, Aachen, Germany (Course is held online Only)							
Short Course: EUV and Soft X-Ray Sources							
Instructors: David Attwood (UC Berkeley), John Sheil (ARCNL / UV) and Gerry O'Sullivan (UCD)							
<i>EUVL Short Courses and EUVL Workshop require separate registrations. Please visit www.euvlitho.com for information.</i>							
				AV Test and Speaker Check-in	0:15	2:00 PM	2:15 PM
		Gerry O'Sullivan	UCD	Lecture	2:30	2:15 PM	4:45 PM
				Break	0:15	4:45 PM	5:00 PM
		John Sheil	ARCNL / TU	Lecture	2:00	4:45 PM	6:45 PM
				Break	0:15	5:00 PM	5:15 PM
		David Attwood	UC Berkeley	Lecture	2:30	5:15 PM	7:45 PM
Short Course Adjourned							

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2023 Source Workshop								
<i>Please see Abstract Book on website www.euvlitho.com for abstracts and co-author(s) information by paper #.</i>								
8:30 AM, Monday, October 23, 2023, Technologiezentrum Aachen, Aachen, Germany								
Session 1: ILT / RWTH Aachen Program Showcase								
Session 2: Code Comparison; Session 3: Lab Tour and Reception								
Session 1: ILT / RWTH Aachen Program Showcase								
<i>Session 1: ILT / RWTH- Aachen Program Showcase; Session Chairs: Jochen Vieker (ILT) and Sascha Brose (RWTH - Aachen)</i>								
	#	First	Last	Company	Title	Duration	Start	Finish
					<i>AV Test, Speaker Check-in and Registration</i>	0:30	8:30 AM	9:00 AM
1		Vivek	Bakshi	EUV Litho	Welcome and Announcements	0:10	9:00 AM	9:10 AM
1	S5	Carlo	Holly	RWTH/ILT	Digital solutions for optics and laser technology (Keynote Presentation)	0:30	9:10 AM	9:40 AM
1	S92	Klaus	Bergmann	ILT	Research and development of EUV sources at Fraunhofer ILT (Review Talk)	0:30	9:40 AM	10:10 AM
1	S93	Sascha	Brose	RWTH/ILT	EUV technology for at-wavelength characterization tasks	0:15	10:10 AM	10:25 AM
1	S96	Martin	Osbuild	ILT	High-throughput Micro-Machining Using Ultrashort Pulsed Lasers	0:15	10:25 AM	10:40 AM
1	S94	Annika	Völl	RWTH	Computational optics for the design of cutting-edge optical components and systems	0:15	10:40 AM	10:55 AM
1	S95	Marcel	Prochnau	RWTH	Optical Systems for high-performance, individual (laser) applications	0:15	10:55 AM	11:10 AM
					Break	0:20	11:10 AM	11:30 AM

	Paper #	First Name	Last Name	Company	Title	Duration	Start	Finish
1	S91	Paul	Buske	RWTH	Diffraction neural networks for laser beam shaping – principle and applications	0:15	11:30 AM	11:45 AM
1	S98	Tim	Lantzsch	ILT	Laser-based additive manufacturing of components for extreme environments	0:15	11:45 AM	12:00 PM
1	S99	Thomas	Schopphoven	ILT	Laser Material Deposition for Coating, Repair and Additive Manufacturing	0:15	12:00 PM	12:15 PM
1	S100	Manuel	Jung	ILT	Laser-Based Manufacturing of Glass Optics	0:15	12:15 PM	12:30 PM
					Lunch	1:00	12:30 PM	1:30 PM

Paper #	First Name	Last Name	Company	Title	Duration	Start	Finish
Session 2: Code Comparison							
<i>Session 2: Session Chairs: John Sheil (ARCNL /TU) and Vivek Bakshi (EUV Litho)</i>							
2	John	Sheil	ARCNL	Code Comparison- Lessons Learned	0:20	1:30 PM	1:50 PM
2	Yusuke	Teramoto	USHIO	Supplier Data Presentations	0:10	1:50 PM	2:00 PM
2	David	Reisman	Energetiq	Supplier Data Presentations	0:10	2:00 PM	2:10 PM
2	Various			USHIO Sn LPP Modeling Results	1:00	2:10 PM	3:10 PM
2	All			2024 Code Comparison Planning	0:35	3:10 PM	3:45 PM
Depart on Buses for ILT Tour and Reception							
4:30 PM, Monday, October 23, 2023, ILT, Aachen, Germany (Workshop held in-person only)							
Session 3: ILT Lab Tour and Reception							
<i>Session 3: Session Co-Chairs: Jochen Vieker (ILT) and Sascha Brose (RWTH)</i>							
3	Sascha	Brose	RWTH/ILT	Lab Tour	0:15	4:30	4:45
3	Serhiy	Danylyuk	ILT	Lab Tour	0:15	4:45	5:00
3	Jochen	Vieker	ILT	Lab Tour	0:15	5:00	5:15
3	Thomas	Schopphoven	ILT	Lab Tour	0:15	5:15	5:30
3	Martin	Reininghaus	ILT	Lab Tour	0:15	5:30	5:45
				Reception	1:00	5:45	6:45
				Workshop Adjourned for the Day			

Paper #	First Name	Last Name	Company	Title	Duration	Start	Finish
9:00 AM, Tuesday, October 24, 2023, Technologiezentrum Aachen, Aachen, Germany							
Session 4: Keynote Presentations and HVM Sources							
Session 5 & 6: EUVL Extension - Blue X ; Session 7: Poster Session & Reception							
Session 4A: Session Co-Chairs (Keynote): Klaus Bergmann (ILT)							
				AV Test, Speaker Check-in and Registration	0:30	9:00 AM	9:30 AM
	Vivek	Bakshi	EUV Litho	Announcements	0:10	9:30 AM	9:40 AM
4A S1	Constantin	Haefner	ILT	Trends and Perspectives of Advanced Photon Source Development	0:30	9:40 AM	10:10 AM
4A S2	Hakaru	Mizoguchi	Kyushu university	Plasma Dynamics and Future of LPP-EUV Source for Semiconductor Manufacturing	0:30	10:10 AM	10:40 AM
4A S6	Torsten	Mans	Trumpf	Lasers and Building Blocks for Secondary Sources	0:30	10:40 AM	11:10 AM
				Break	0:20	11:10 AM	11:30 AM
Session 4B: Metrology Sources, Session Co-Chairs: Yusuke Teramoto (USHIO) and Rainer Lebert (RI)							
4B S71	Mikhail	Krivokorytov	ISTEQ Group	EUV LPP light source based on fast rotating target. Target material variants and way to increase spectral brightness.	0:15	11:30 AM	11:45 AM
4B S72	Masayasu	Nishizawa	Lasertec	Development of a laser-induced plasma EUV light source suitable for inspection tools	0:15	11:45 AM	12:00 PM
4B S73	David	Reisman	Energetiq	Optimization of an all solid-state driven Discharge Produced Plasma (DPP) EUV source	0:15	12:00 PM	12:15 PM
4B S74	Ueno	Yoshifumi	GP	Development status of Gigaphoton's LPP EUV light source for inspection systems	0:15	12:15 PM	12:30 PM
4B S75	Jochen	Vieker	Fraunhofer ILT	Systems for development and accelerated testing of EUVL components	0:15	12:30 PM	12:45 PM

	Paper #	First Name	Last Name	Company	Title	Duration	Start	Finish
4B	S76	Yusuke	Teramoto	Ushio	Characterization and performance improvement of laser- and discharge-driven EUV sources	0:15	12:45 PM	1:00 PM
4B	S77	Andreas	Biermanns-Föth	RI	The EUV-LAMP and application in Pellicle Inspection Tools	0:15	1:00 PM	1:15 PM
4B	S78	Reza	Abhari	ETH Zürich	Compact LPP Source for Inspection Application in Semiconductor Manufacturing	0:15	1:15 PM	1:30 PM
					Lunch	1:00	1:30 PM	2:30 PM
Session 5: EUV Extension and Blue- X I; Session Co-Chairs: Oscar Versolato (ARCNL) and Vivek Bakshi (EUV Litho)								
5	S55	Vivek	Bakshi	EUV Litho	EUVL Extension - Blue-X: Status and Challenges Ahead	0:15	2:30 PM	2:45 PM
5	S52	Oscar	Versolato	ARCNL	Highly efficient generation of EUV light using 2-um drive laser light	0:15	2:45 PM	3:00 PM
5	S53	Stan	de Lange	ARCNL	Modeling the hundreds-of-nanoseconds-long, joule-level irradiation of tin droplets with a 2 μm-wavelength laser for future EUV lithography	0:15	3:00 PM	3:15 PM
5	S54	Yotam	Mazuz-Harpaz	L2X Labs	Enhancement of Sn plasma EUV emission by double-sided laser illumination	0:15	3:15 PM	3:30 PM
					Break	0:20	3:30 PM	3:50 PM
Session 6: EUV Extension and Blue- X II; Session Co-Chairs: Erik Hosler (Xlight) and Manuel Hegelich (Tau Systems)								
6	S51	Erik	Hosler	Xlight	The Last Light Source	0:15	3:50 PM	4:05 PM
6	S46	Robert	Riedel	Class 5 Photonics	Roadmap to High-Brilliance EUV and SXR Sources	0:15	4:05 PM	4:20 PM
6	S42	Rolf	Wester	ILT	Laser Driven Secondary Particle Generation: An Overview	0:15	4:20 PM	4:35 PM
6	S44	Marc	Zimmer	Focused Energy	Novel opportunities of laser-driven neutron and hard X-ray sources entering the market	0:15	4:35 PM	4:50 PM

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6	S43	Bjorn	Manuel Hegelich	Tau Systems	Compact laser-accelerator driven EUV and X-ray sources	0:15	4:50 PM	5:05 PM
					Break	0:25	5:05 PM	5:30 PM

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Session 7: Poster Session and Reception Session Chair; Vivek Bakshi (EUV Litho)								
	7 S110	Sophia	Schröder	RWTH	Mitigation of polarization-dependent uncertainties in a compact EUV spectrometer	1:30	5:30 PM	7:00 PM
	7 S111	Lars	Lohmann	RWTH	Multi-level phase-shifting mask concept for EUV interference lithography			
	7 S112	Sascha	Brose	RWTH/ILT	Development of an ultra-compact inline transmission grating spectrograph for EUV wavelengths			
	7 S113	Karl	Schubert	ARCNL	Vaporization dynamics of liquid tin sheet targets			
	7 S114	Alexander	Tovstopyat	ISTEQ Group	TEUS: high-brightness EUV LPP light source based on fast rotating target. Product overview and specifications.			
	7 S115	Noa	Kliss	L2X Labs	Sinusoidal Transmission Grating Spectrometer for EUV Measurement			
	7 S116	Fergal	O'Reilly	UCD	TBA			
	7 S117	Martin	Wünsche	Indigo Optical Systems GmbH Friedrich Schiller University Jena	Ultrabroadband EUV Inspection with High-harmonic Generation Sources			
Workshop Adjourn for the day - Buses to the hotel								

Paper #	First Name	Last Name	Company	Title	Duration	Start	Finish	
9:00 AM, Wednesday, October 25, 2023, Technologiezentrum Aachen, Aachen, Germany								
Session 8: Keynote Presentations and Laser, HHG and Applications								
Session 9: Metrology Sources								
Session 10: Optics and Metrology								
<i>Session 8A Keynote Presentations, Session Chair: Oscar Versolato (ARCNL)</i>								
				<i>AV Test, Speaker Check-in and Registration</i>	0:30	9:00 AM	9:30 AM	
		Introduction	Vivek Bakshi	EUV Litho, Inc.	Welcome and Announcements	0:10	9:30 AM	9:40 AM
8A	S4	Marcelo	Ackerman	UTwente	Resolving and improving the interfaces of Short-wavelength Multilayers – EUV and beyond	0:30	9:40 AM	10:10 AM
8A	S3	Larissa	Juschkin	KLA Tencor	Scaling laws of source requirements for optical inspection in semiconductor device manufacturing	0:30	10:10 AM	10:40 AM
				Break	0:20	10:40 AM	11:00 AM	
<i>Session 8B Laser, HHG and Applications; Session Chairs: Sascha Brose (RWTH - Aachen) and Jochen Vieker (ILT)</i>								
8B	S45	Travis	Frazer	KM Labs	Coherent EUV Metrology Based on High Harmonic Generation	0:15	11:00 AM	11:15 AM
8B	S48	Sven	Breitkopf	AFS (Trumpf)	High Flux XUV Beamlines for Imaging and Spectroscopy	0:15	11:15 AM	11:30 AM
8B	S47	Bernhard	Lüttgenau	RWTH	Fabrication of (complex) periodic patterns by Talbot lithography with compact EUV sources	0:15	11:30 AM	11:45 AM
8B	S41	Stephan Hermann	Wissenberg	ILT	VUV frequency comb for 229-Thorium isomer excitation	0:15	11:45 AM	12:00 PM
8B	S49	Jan	Rothhardt	IOF	High performance high harmonic sources, imaging and metrology in the EUV	0:15	12:00 PM	12:15 PM
				Lunch and Steering Committee Meeting (Closed)	1:30	12:15 PM	1:45 PM	

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Session 9: Session Co-Chairs (HVM Sources): Mark van de Kerkhoff (ASML) and Job Beckers (TUE)								
9	S61	Mark	van de Kerkhof	ASML	EUV-induced Plasma in Lithographic Scanner	0:15	1:45 PM	2:00 PM
9	S62	Job	Beckers	TUE	EUV-induced plasma as an intermediate state for EUV beam metrology	0:15	2:00 PM	2:15 PM
9	S63	Adelind	Elshani	RWTH	Investigations of EUV-induced low density hydrogen plasma in a high-intensity irradiation setup	0:15	2:15 PM	2:30 PM
9	S64	Yiming	Pan	Hokudai University	Toward a direct comparison of measured and modeled EUV Spectra	0:15	2:30 PM	2:45 PM
9	S65	Samuel	Totorica	Princeton University	Acceleration of Energetic Ions in Laser-Driven Tin Plasma EUV Sources	0:15	2:45 PM	3:00 PM
9	S66	Dion	Engels	ARCNL	High-Resolution Spectroscopic Imaging of Atoms and Nanoparticles in Thin Film Vaporization	0:15	3:00 PM	3:15 PM
					Break	0:20	3:15 PM	3:35 PM

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Session 10: Optics and Metrology, Session Co-Chairs: Torsten Feigl (optiXfab) and Frank Scholze (PTB)								
10	S84	Torsten	Feigl	optiXfab	TBA	0:15	3:35 PM	3:50 PM
					Optical constant determination in the vacuum ultraviolet and EUV spectral ranges based on s- and p-polarized reflectance measurements	0:15	3:50 PM	4:05 PM
10	S85	Frank	Scholze	PTB				
					Spectral characterization of EUV source at TNO	0:15	4:05 PM	4:20 PM
10	S83	Jacqueline	Veldhoven	TNO				
					Lab-based EUV spectroscopy: A guide from data acquisition to reconstructed sample parameters	0:15	4:20 PM	4:35 PM
10	S86	Sven	Glabisch	RWTH				
					Simultaneous spectroscopy and imaging of an EUV plasma using zone-plates dispersion matched to transmission gratings	0:15	4:35 PM	4:50 PM
10	S82	Muharrem	Bayraktar	University of Twente				
					Light Sources for Metrology Applications	0:15	4:50 PM	5:05 PM
10	S81	Iris	Pilch	Zeiss				
			Vivek Bakshi	EUV Litho, Inc.	Announcements	0:10	5:05 PM	5:15 PM
					Break	0:30	5:15 PM	5:45 PM
Workshop Adjourned. Leave for Off-Site Workshop Dinner (Dinner at 6 PM)								