

Laser Symposium and ISAM 2023: Detailed Program (as of 19.09.2023, subject to changes)

WEDNESDAY | November 29, 2023

THURSDAY | November 30, 2023

FRIDAY | December 1, 2023

OPENING PLENARY: Emerging Technologies Chair: Christoph Leyens   Fraunhofer IWS	
(C.E.T.)	
09:00	<b>Welcome and Opening</b> Christoph Leyens   Fraunhofer IWS
09:15	<b>Plenary Talk 1: Laser as a secondary source</b> Hagen Zimmer   TRUMPF SE + Co. KG
09:45	<b>Plenary Talk 2: The ESA Advanced Manufacturing Initiative as Innovation Driver for the European Space Community</b> Thomas Rohr   European Space Agency (ESA)
	<b>EXHIBITOR PITCHES</b> Chair: Markus Forytta   Fraunhofer IWS
10:15	<b>Laserline GmbH: tbd</b>
10:20	<b>Asphericon GmbH: Democratization of Laser Technology   Alex Ponomarew</b>
10:25	<b>Laservision GmbH &amp; Co. KG GmbH: Active Laser Safety Window for NIR and blue Lasers   Jürgen Palkoska</b>
10:30	<b>Fiber Bridge Photonics GmbH: tbd   Thomas Theeg</b>
10:35	<b>Coffee Break &amp; Exhibition</b>
	<b>LASER 1: Advanced Laser Sources</b> Chair: Andreas Wetzig   Fraunhofer IWS
	<b>ISAM 1: Design and Simulation</b> Chair: Elena Lopez   Fraunhofer IWS
11:10	<b>Superior Gas Lasers for Advanced Material Applications</b> Stephan Falke   Coherent
11:30	<b>Development Trends for Fiber Lasers</b> Jens Limpert   Friedrich-Schiller-Universität Jena, Fraunhofer IOF
11:50	<b>High Power Ultra-Short-Pulsed Lasers</b> Eric Mottay   Amplitude Laser
12:10	<b>Lunch Break &amp; Exhibition</b>
	<b>LASER 2: Welding</b> Chair: Axel Jahn   Fraunhofer IWS
	<b>ISAM 2: Trends in AM</b> Chair: Frank Brückner   Fraunhofer IWS
13:20	<b>Thermoplastic Composites in Aerospace – An Insight into Development of the Largest Full Thermoplastic Aircraft Structure in the World</b> Alexei Vichniakov   Airbus Operations GmbH
13:40	<b>Laser Welding of Copper – Opportunities, Challenges and Fascinating Insights</b> Andreas Heider   Bosch GmbH
14:00	<b>Ultra-short Pulsed Laser Welding: Glasses, Crystals and Metals</b> Duncan P. Hand   Heriot Watt University
14:20	<b>Coffee Break &amp; Exhibition</b>
	<b>LASER 3: Cutting</b> Chair: Jan Hauptmann   Fraunhofer IWS
	<b>ISAM 3: Materials</b> Chair: Martina Zimmermann   Fraunhofer IWS
14:50	<b>Under Water Laser Cutting</b> Patrick Herwig   Fraunhofer IWS
15:10	<b>Advantages and Challenges of Sheet Metal Cutting with Increased Laser Power and Mixed Gas</b> Andreas Lüdi   Bystronic
15:30	<b>Continuous Cutting of Airbag Fabric with Superposed Axes Systems</b> Jens Hußlein   HELD SYSTEMS GmbH
15:50	<b>POSTER SESSION</b>
	<b>LASER 4: Process Monitoring &amp; Control</b> Chair: Christopher Taudt   Fraunhofer IWS
	<b>ISAM 4: Future Technologies and Processing</b> Chair: Lukas Stepien   Fraunhofer IWS
17:00	<b>Spatial and Time-resolved Temperature Measurement and Control in Laser Material Processing</b> Marko Seifert   Fraunhofer IWS
17:20	<b>Are you Measuring the Right Stuff?</b> Roy Orbon   Van Halteren Technologies Bostel BV
17:40	<b>A Thermographic Inspection of Welds Using Surrounding Laser Excitation</b> Lukáš Muzika   University of West Bohemia
18:30 - 22:30	<b>NETWORKING SESSION</b> Dinner Speech: "Laser Processing – An Evident Idea? And what's next?" Joost Duffou   KU Leuven

JOINT PLENARY: New Frontiers in Material Processing Chair: Frank Brückner   TU Dresden	
(C.E.T.)	
09:00	<b>Welcome Note</b> Frank Brückner   Fraunhofer IWS
09:05	<b>Plenary Talk 3: Laser goes Hydrogen</b> Christoph Leyens   Fraunhofer IWS
09:35	<b>Plenary Talk 4: Laser goes Battery</b> Klaus Löffler   Precitec GmbH
	<b>EXHIBITOR PITCHES</b> Chair: Markus Forytta   Fraunhofer IWS
10:05	<b>ALOTec Dresden GmbH: Laser hardening and cladding systems by ALOTec Dresden   Lukas Olasky</b>
10:10	<b>COAXworks GmbH: Innovations for Laser Wire Deposition   Sebastian Thieme</b>
10:15	<b>DIVE imaging systems GmbH: Comprehending the Invisible   Wulf Grählerlert</b>
10:20	<b>TRUMPF Laser- und Systemtechnik GmbH : The Answer to your Manufacturing Needs   Ralf Kimmel</b>
10:25	<b>Coffee Break &amp; Exhibition</b>
	<b>LASER 5: Beam Shaping</b> Chair: Dirk Dittlich   Fraunhofer IWS
	<b>ISAM 5: Digitalization</b> Chair: Mirko Riede   Fraunhofer IWS
11:00	<b>Fast Beam Shaping through Coherent Beam Combining</b> Asaf Nissenbaum   Civan Lasers
11:20	<b>Freeform Beam Shaping for Laser Material Processing</b> Natalia Trela-McDonald   PowerPhonic Ltd UK
11:40	<b>Laser Beam Shaping and Melt Pool Thermal Flow</b> Isabelle Choquet   University West, Sweden
12:00	<b>Lunch Break &amp; Exhibition</b>
	<b>LASER 6: Micro Processing</b> Chair: Andrés Lasagni   Fraunhofer IWS
	<b>ISAM 6: Surface Treatment in AM</b> Chair: Moritz Greifzu   Fraunhofer IWS
13:00	<b>Inspired by Nature, Powered by Laser: Advancements in Functional Surface Engineering Using Laser-based Biomimicry</b> Tim Kunze   Fusion Bionic GmbH
13:20	<b>Flexible Production of Organic Photovoltaic Modules with Laser Systems – Productive Usage and Opportunities</b> Irma Slowik   Heliatek GmbH
13:40	<b>Tackling Microprocessing Challenges with Beam Shaping</b> Gwenn Pallier   CAILABS
14:00	<b>Short Break</b>
	<b>LASER 7: Cladding and Thermal Coating</b> Chair: Marko Seifert   Fraunhofer IWS
	<b>ISAM 7: Business Cases and Industrialization</b> Chair: Frank Brückner   Fraunhofer IWS
14:10	<b>External and Internal Laser Cladding of Tin Bronze for Sliding Bearings</b> Hannes Freisse   Kugler Bimetal SA
14:30	<b>Holistic Approach of a Surface Functionalized Cast Iron Brake Disc</b> René Bischoff   C4 Laser Technology GmbH
14:50	<b>Latest Developments in Cladding and Additive Manufacturing with Diode Lasers</b> Sörn Ocylok   Laserline GmbH
15:10	<b>Coffee Break &amp; Exhibition</b>
	<b>CLOSING PLENARY</b> Chair: Christoph Leyens   Fraunhofer IWS
15:40	<b>Plenary Talk 5: Laser-driven Inertial Confinement Fusion – Technology and Potential</b> Constantin Häfner   Fraunhofer ILT
16:10	<b>Best Poster Award   Concluding Remarks</b> Christoph Leyens   Fraunhofer IWS
16:30	<b>End of the Conference</b>

(C.E.T.)  
18:00 -  
22:00

**OPEN LAB**  
**@FRAUNHOFER IWS**

Accompanying Industrial Exhibition