

Laser Symposium and ISAM 2023: Detailed Program (as of 23.11.2023, subject to changes)

WEDNESDAY | November 29, 2023

THURSDAY | November 30, 2023

FRIDAY | December 1, 2023

08:00	Registration	
(C.E.T.)	OPENING PLENARY: Emerging Technologies Chair: Christoph Leyens Fraunhofer IWS	
09:00	Welcome and Opening Christoph Leyens Fraunhofer IWS	
09:15	Plenary Talk: Laser as a secondary source Hagen Zimer TRUMPF SE + Co. KG	
09:45	Plenary Talk: The ESA Advanced Manufacturing Initiative as Innovation Driver for the European Space Community Thomas Rohr European Space Agency (ESA)	
	EXHIBITOR PITCHES	
10:15	Laserline GmbH: Sustainable high power Laser applications Thomas Molitor	
10:20	Asphericon GmbH: Democratization of Laser Technology Alex Ponomarew	
10:25	Laservision GmbH & Co. KG GmbH: Active Laser Safety Window for NIR and blue Lasers Jürgen Palkoska	
10:30	Fiber Bridge Photonics GmbH: High Power Fiber Arrays for Beam Shaping in Material Processing Thomas Theeg	
10:35	Coffee Break & Exhibition	
	LASER 1: Advanced Laser Sources Chair: Andreas Wetzig Fraunhofer IWS	ISAM 1: Design and Simulation Chair: Frank Brückner Fraunhofer IWS
11:10	Superior Gas Lasers for Advanced Material Applications Stephan Falke Coherent	Digitalized DED Process Preparation Oihane Murua University of the Basque Country (UPV / EHU) Sebastian Hartmann Siemens AG, Digital Industries
11:30	Development Trends for Fiber Lasers Jens Limpert Friedrich-Schiller-Universität Jena, Fraunhofer IOF	Simulation Driven Optimization of Processing Window for Laser Direct Energy Deposition Process Andrey Molotnikov RMIT University
11:50	Large Area Surface Processing with Kilowatt Femtosecond Lasers Eric Mottay Amplitude Laser	Metal Binder Jetting of Dentures: Green Part Extraction and Sinter Simulation of Filigree Parts Moritz Greifzu Fraunhofer IWS
12:10	Lunch Break & Exhibition	
	LASER 2: Welding Chair: Axel Jahn Fraunhofer IWS	ISAM 2: Trends in AM Chair: Moritz Greifzu Fraunhofer IWS
13:20	Thermoplastic Composites in Aerospace – An Insight into Development of the Largest Full Thermoplastic Aircraft Structure in the World Alexei Vichniakov Airbus Operations GmbH	How Additive Manufacturing is Helping the Energy Transition Jan Münzer Siemens Energy
13:40	Laser Welding of Copper – Opportunities, Challenges and Fascinating Insights Andreas Heider Bosch GmbH	ONLINE Additive Manufacturing Nature Inspired Functional Elements Anton Du Plessis Comet Group
14:00	Ultra-short Pulsed Laser Welding: Glasses, Crystals and Metals Duncan P. Hand Heriot Watt University	Pushing the Limits of Large Scale Additive Manufacturing Mirko Riede Fraunhofer IWS
14:20	Coffee Break & Exhibition	
	LASER 3: Cutting Chair: Jan Hauptmann Fraunhofer IWS	ISAM 3: Materials Chair: Martina Zimmermann Fraunhofer IWS
14:50	Under Water Laser Cutting Patrick Herwig Fraunhofer IWS	Development of Novel Alloys for Harsh Environments Suited for Additive Manufacturing Kosuke Kuwabara Proterial
15:10	Advantages and Challenges of Sheet Metal Cutting with Increased Laser Power and Mixed Gas Andreas Lüdi Bystronic	Metal Additive Manufacturing with Magnetic Materials Hyojun Jung Korea Institut of Industrial Technology
15:30	Continuous Cutting of Airbag Fabric with Superposed Axes Systems Karsten Zenger HELD SYSTEMS GmbH	Laser Beam Powder Bed Fusion of Novel Biomedical Titanium / Niobium / Tantalum Alloys Markus Weinmann TANIÖBIS GmbH
15:50	POSTER SESSION	
	LASER 4: Process Monitoring & Control Chair: Christopher Taudt Fraunhofer IWS	ISAM 4: Future Technologies and Processing Chair: Lukas Stepien Fraunhofer IWS
17:00	Spatial and Time-resolved Temperature Measurement and Control in Laser Material Processing Marko Seifert Fraunhofer IWS	Additive Manufacturing Challenges and Opportunities in Oil and Gas Offshore Gabriel Silva Technip-FMC
17:20	Are you Measuring the Right Stuff? Roy Orbon Van Halteren Technologies Boxtel BV	Metal Additive Manufacturing for Particle Accelerators: Current Applications and Potential Development Maurizio Vedani Politecnico di Milano
17:40	A Thermographic Inspection of Welds Using Surrounding Laser Excitation Lukáš Muzika University of West Bohemia	"Hybrid Parts in Mass Production" or how Additive Manufacturing Technology is Influencing our Production Lines Klaus Eimann Procter & Gamble
18:30 - 22:30	NETWORKING SESSION Dinner Speech: "Laser Processing – An Evident Idea? And what's next?" Joost Duffou KU Leuven	

08:30	Registration	
(C.E.T.)	JOINT PLENARY: New Frontiers in Material Processing Chair: Frank Brückner Fraunhofer IWS	
09:00	Welcome Note Frank Brückner Fraunhofer IWS	
09:05	Plenary Talk: Laser goes Hydrogen Christoph Leyens Fraunhofer IWS	
09:35	Plenary Talk: Laser goes Battery Klaus Löffler Precitec GmbH	
	EXHIBITOR PITCHES	
10:05	ALOTec Dresden GmbH: Laser hardening and cladding systems by ALOtec Dresden Lukas Olawsky	
10:10	COAXworks GmbH: Innovations for Laser Wire Deposition Sebastian Thieme	
10:15	DIVE imaging systems GmbH: Comprehending the Invisible Wulf Grählert	
10:20	TRUMPF Laser- und Systemtechnik GmbH: The Answer to your Manufacturing Needs Ralf Kimmel	
10:25	Coffee Break & Exhibition	
	LASER 5: Beam Shaping Chair: Dirk Ditttrich Fraunhofer IWS	ISAM 5: Digitalization Chair: Mirko Riede Fraunhofer IWS
11:00	Fast Beam Shaping through Coherent Beam Combining Karen Schwarzkopf Civan Lasers	Industrial Systems and Digital Solutions Johan Vallhagen GKN Aerospace
11:20	Freeform Beam Shaping for Laser Material Processing Natalia Trela-McDonald PowerPhotonic Ltd UK	The Digital Flow of Information Drives the Industrialization of Additive Manufacturing towards Series Production Tobias Todzy Farsoon Europe GmbH
11:40	Laser Beam Shaping and Melt Pool Thermal Flow Isabelle Choquet University Wit, Sweden	Artificial Intelligence for Flawless Additive Manufacturing João Paulo Sousa INEGI – Institute of Science and Innovation in Mechanical and Industrial Engineering
12:00	Lunch Break & Exhibition	
	LASER 6: Micro Processing Chair: Andrés Lasagni Fraunhofer IWS	ISAM 6: Surface Treatment in AM Chair: Moritz Greifzu Fraunhofer IWS
13:00	Inspired by Nature, Powered by Laser: Advancements in Functional Surface Engineering Using Laser-based Biomimicry Tim Kunze Fusion Bionic GmbH	Special Requirements for Surfaces and Tolerances Restrict AM in Medical Technology Uwe Schöler Olympus Surgical Technologies Europe
13:20	Flexible Production of Organic Photovoltaic Modules with Laser Systems – Productive Usage and Opportunities Irma Slowik Heliatek GmbH	Additive Manufactured Ni-based Alloys: Surface Finish, Oxidation Behaviour and its Protection through Aluminate Coatings Fernando Pedraza Diaz Université de La Rochelle
13:40	Tackling Microprocessing Challenges with Beam Shaping Gwenn Pallier CAILABS	Surface Modification in Additively Manufactured Dental Parts Lukas Stepien Fraunhofer IWS
14:00	Short Break	
	LASER 7: Cladding and Thermal Coating Chair: Marko Seifert Fraunhofer IWS	ISAM 7: Business Cases and Industrialization Chair: Frank Brückner Fraunhofer IWS
14:10	External and Internal Laser Cladding of Tin Bronze for Sliding Bearings Hannes Freisse Kugler Bimetal SA	ONLINE DED Additive Manufacturing of CuCrZ on Okuma Hybrid Machine Enzo Jose Ficarra VENG
14:30	Holistic Approach of a Surface Functionalized Cast Iron Brake Disc René Bischoff C4 Laser Technology GmbH	Additive Manufacturing – Increasing Complexity to Gain Benefits in Aerospace Propulsion Systems Björn Hinze Rolls-Royce Deutschland Ltd & Co KG
14:50	Latest Developments in Cladding and Additive Manufacturing with Diode Lasers Sörn Ocylok Laserline GmbH	Ensure Perfection: Multi Sensor Systems for Additive Manufacturing Benedikt Brandau JENOPTIK Optical Systems GmbH
15:10	Coffee Break & Exhibition	
	CLOSING PLENARY Chair: Christoph Leyens Fraunhofer IWS	
15:40	Plenary Talk: Laser-driven Inertial Confinement Fusion – Technology and Potential Constantin Häfner Fraunhofer ILT	
16:10	Best Poster Award Concluding Remarks Christoph Leyens Fraunhofer IWS	
16:30	End of the Conference	

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

OPEN LAB
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Accompanying Industrial Exhibition