



Fraunhofer
ILT

Fraunhofer Institute for Laser
Technology ILT

May 4–6, 2022 | Program

AKL'22 – International Laser Technology Congress

www.lasercongress.org

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Welcome

AKL'22 – International Laser Technology Congress

In these times of economic change, companies are looking for new ideas and technologies to better position themselves in a fiercely competitive environment. To help them keep abreast of such innovations, the International Laser Technology Congress AKL sheds light on the state of practice-oriented research in laser technology and provides insight into relevant and forward-looking industrial developments. Whether it's about new laser beam sources and laser applications or how digitization impacts production technology, you'll find an intensive exchange in the field of laser technology. Indeed, you are in good hands at AKL'22 – where inspiration, innovation and networking are guaranteed!

For the 13th time, laser manufacturers and laser users from different industries will meet at the biennial AKL. With over 600 participants, 80 presentations and 50 sponsors, this congress has established itself in Europe as the leading forum for applied laser technology in production. The European Commission, the European Photonics Industry Consortium EPIC, OptecNet Deutschland as well as the industry associations SPECTARIS, VDA, VDMA and VDI assist the forum as supporting organizations.

Benefit from AKL's international character as it offers simultaneous translations in German and English. In addition, take advantage of the conference environment to learn more about the latest technological findings in numerous live presentations by Fraunhofer ILT. We are looking forward to your visit!

Prof. Constantin Häfner

Information, Inspiration, Networking

AKL'22 – Laser Applications of Tomorrow

AKL'22 – Laser Technology Conference

The AKL'22 Laser Technology Conference provides a comprehensive overview of current developments in laser material processing in macro and micro areas and in laser beam development. Moreover, it offers laser manufacturers and users an ideal platform to intensively exchange ideas and experience.

Sponsors' Exhibition

Noteworthy companies from laser engineering show innovative products and processes, encompassing all aspects of laser technology, to interested congress participants.

Technology Business Day

The Technology Business Day is directed at leading managers and marketing directors who want specific information on the status and perspectives in the European, American and Asian laser markets.

Seminar Laser Technology ABC's

You have little or no experience in how laser technology can be used? Then you can obtain the foundations on how lasers work and where they can be applied in the Seminar Laser Technology ABC's.

Conference Language

Lectures are presented in English and German with simultaneous interpreting.



Expert Forums

- Process Control and Digitization
- Laser Additive Manufacturing
- Quantum Technology and Photonics

If you would like to delve deeper into Process Control and Digitization, Laser Additive Manufacturing or Quantum Technology and Photonics, you can get a comprehensive overview on state of the art and current developments in three separate forums, as well as useful contacts to experts in these fields.

Laser Technology Live

As a participant of AKL'22, you can experience laser technology live in over 50 demonstrations in Europe's largest laser system park at the Fraunhofer Institute for Laser Technology ILT and exchange ideas with Aachen researchers about the latest technological developments. Laser Technology Live is included for registered participants of May 5, 2022.

Networking at Eurogress

The Networking at Eurogress gives you the opportunity to exchange experiences among experts.

Innovation Award Laser Technology

The official presentation of the Innovation Award Laser Technology 2020 and 2022 takes place during AKL'22 on Wednesday, May 4, 2022 at a festive dinner in the Coronation Hall of Aachen's town hall.

Program Structure

WEDNESDAY

Sponsors' Exhibition (accompanying)

Seminar Laser Technology ABC's

FORUM Laser Additive Manufacturing

Technology Business Day

FORUM Process Control & Digitization

FORUM Quantum Technology & Photonics

Dinner – Innovation Award Laser Technology

THURSDAY

Sponsors' Exhibition (accompanying)

Gerd Herziger Session

- Perspectives for Laser Source Development
- Digital Photonic Production

Laser Material Processing – Macro

- Laser Powder Bed Fusion LPBF

Laser Material Processing – Micro

- Micro Structuring

Laser Beam Sources

- Solid State and Fiber Lasers

Laser Technology Live

with over 50 presentations

Networking at Eurogress

FRIDAY

Laser Material Processing – Macro

- Cutting
- Welding
- Laser Material Deposition

Laser Material Processing – Micro

- Micro Joining
- Ultrafast Lasers – Applications
- Polishing and Thin Film Processing

Laser Beam Sources

- Ultrafast Lasers – Beam Sources
- Lasers with Tailored Wavelengths
- Diode Lasers

Outlook

Program subject to minor changes.

Program – Expert Forums

Wednesday, May 4, 2022



FORUM – Laser Additive Manufacturing

from 8:00	Check-in and Coffee Reception
Room Europa	Chairpersons: Jasmin Saewe & Dr. Thomas Schopphoven, Fraunhofer ILT, Aachen (D)
10:00	Additive Manufacturing of Rocket Engine Components by Means of Laser Metal Deposition Dr. Steffen Beyer, Ariane Group GmbH, Taufkirchen (D)
10:30	Rapid Alloy Development for Coating, Repair and Additive Manufacturing Dr. Arkadi Zikin, Oerlikon Metco AG, Wohlen (CH)
11:00	Understanding the Complete Workflow for Laser Material Deposition Frédéric Le Moullec, BeAM S.A.S., Strasbourg (F)
11:30	EHLA 3D – Further Development of the Extreme High-Speed Laser Material Deposition for Additive Manufacturing Min-Uh Ko, Fraunhofer ILT, Aachen (D)
12:00	Lunch – Visit of the Sponsors' Exhibition
14:00	Laser Material Deposition with Diode Lasers Dr. Sörn Ocylok, Laserline GmbH, Mühlheim-Kärlich (D)
14:30	Insight into Laser Metal Fusion with Process Sensorics Dr. Marc Gronle, TRUMPF Laser- und Systemtechnik GmbH, Ditzingen (D)
15:00	Development of Functional LPBF-Prototypes for the Chassis Area Raphael Koch, Ford Europe Inc., Köln (D)
15:30	Coffee Break – Visit of the Sponsors' Exhibition
16:30	The Data Chain of Laser Powder Bed Fusion Dr. Bart van der Schueren, Materialise NV, Leuven (B)
17:00	Less is More: Using Savings Potential with Simulation Keno Kruse, CADFEM GmbH, Hannover (D)

Evening Event

19:00–23:00 Dinner with Presentation of the “Innovation Award Laser Technology” in the Coronation Hall of Aachen's Town Hall

FORUM – Process Control & Digitization

from 8:00	Check-in and Coffee Reception
Room Brüssel	Chairman: Peter Abels, Fraunhofer ILT, Aachen (D)
10:00	3D Geometry Recognition and Digital Process Chain for DED Processes Dr. Oliver Steffens, Lunovu GmbH, Herzogenrath (D)
10:30	Process Monitoring for Additive Manufacturing Using Sensor Fusion Approach Emil Duong, Fraunhofer ILT, Aachen (D)
11:00	Automatic Monitoring of Laser Welding Processes with Robotic Guidance Charlotte Helzle, hema electronic GmbH, Aalen (D)
11:30	Online Detection of Defects during Laser Welding Using AI Dr. Michael Ungers, Scansonic MI GmbH, Berlin (D)
12:00	Lunch – Visit of the Sponsors' Exhibition
14:00	AI Assisted In Situ Quality Inspection of Laser Welded Hairpin Joints Dr. Nikolaus Jeromin, MAHLE International GmbH, Stuttgart (D)
14:30	Seeing the Unseen – Sensors with Sophisticated Data Models Enable Higher Manufacturing Quality Dr. Markus Kogel-Hollacher, Precitec GmbH & Co. KG, Gaggenau (D)
15:00	Gapless Seam Tracking – A Development for Industrial Applications TBD, Carl Cloos Schweißtechnik GmbH, Haiger (D)
15:30	Coffee Break – Visit of the Sponsors' Exhibition
16:30	Convenience through Connectivity: OPC Unified Architecture for LPBF Systems Thorsten Schreiner, AixPath GmbH, Aachen (D)
17:00	Acoustic Quality Monitoring in Laser Material Processing: An Overview Dr. Wolfgang Rohringer, XARION Laser Acoustics GmbH, Vienna (AT)

Evening Event

19:00–23:00 Dinner with Presentation of the “Innovation Award Laser Technology” in the Coronation Hall of Aachen's Town Hall

FORUM – Quantum Technology & Photonics

from 8:00	Check-in and Coffee Reception
Room K2	Chairmen: Dr. Bernd Jungbluth & Florian Elsen, Fraunhofer ILT, Aachen (D)
10:00	Quantum Computing – Introduction and Challenges Prof. Tommaso Calarco, Forschungszentrum Jülich GmbH, Jülich (D)
10:30	Infineon's Approach to Quantum Computing Dr. Sebastian Lubner, Infineon Technologies AG, München (D)
11:00	Quantum Computing Applications at Bosch Dr. Thomas Strohm, Robert Bosch GmbH, Stuttgart (D)
11:30	From Quantum Teleportation to the Quantum Internet Prof. Wolfgang Tittel, QuTech, Delft (NL)
12:00	Lunch – Visit of the Sponsors' Exhibition
14:00	Quantum-Save Encryption for Optical Networks in Practice Helmut Griebner, ADVA Optical Networking SE, Martinsried (D)
14:30	Frequency Standard for Quantum Applications Dr. Ronald Holzwarth, Menlo Systems, Martinsried (D)
15:00	Quantum Light for Inline Process Monitoring Dr. Sven Ramelow, Humboldt-Universität zu Berlin, Berlin (D)
15:30	Coffee Break – Visit of the Sponsors' Exhibition
16:30	Quantum Technologies and what Lasers Have to Do with It Dr. Wilhelm Kaenders, TOPTICA Photonics AG, Gräfelfing (D)
17:00	Photonic Quantum Technologies Dr. Michael Förtsch, Q.ant GmbH, Stuttgart (D)

Evening Event

19:00–23:00 Dinner with Presentation of the “Innovation Award Laser Technology” in the Coronation Hall of Aachen's Town Hall

Program

Wednesday, May 4, 2022



Seminar Laser Technology ABC's

from 10:30 Check-in and Light Refreshments

Room K4–K5 Chairman: Prof. Arnold Gillner, Fraunhofer ILT, Aachen (D)

- 12:30 Basics of Laser Applications**
Dr. Florian Klämpfl, Friedrich-Alexander-Universität
Erlangen-Nürnberg, Erlangen (D)
- 13:00 Overview of High Power Lasers**
Dr. Peter Kallage, Coherent, Hamburg (D)
- 13:30 Diode Lasers and their Applications**
Markus Rütering, Laserline GmbH, Mühlheim-Kärlich (D)
- 14:00 Power and Precision – Pulsed Lasers for Highest Accuracy**
Dr. Alexander Knitsch, TRUMPF Laser- und Systemtechnik
GmbH, Ditzingen (D)
- 14:30 Coffee Break – Visit of the Sponsors' Exhibition**
- 15:30 Modern Scanning Systems for Laser Machining**
Dr. Holger Schlüter, SCANLAB GmbH, Puchheim (D)
- 16:00 Sensors, Measuring Instruments, Software –
Ingredients for Intelligent Quality Assurance**
Dr. Markus Kogel-Hollacher, Precitec GmbH & Co. KG,
Gaggenau (D)
- 16:30 X-Ray Hazards and Radiation Protection Aspects
in Ultrashort Laser Processing**
Jörg Krüger, Bundesanstalt für Materialforschung
und -prüfung BAM, Berlin (D)
- 17:00 Future Applications of Laser Technology – An Outlook**
Prof. Arnold Gillner, Fraunhofer ILT, Aachen (D)

Evening Event

**19:00–23:00 Dinner with Presentation of the
“Innovation Award Laser Technology”**
in the Coronation Hall of Aachen's Town Hall

Technology Business Day

from 10:30 Check-in and Light Refreshments

Room K1 **Laser Markets in Europe, America and Asia**
Chairman: Prof. Peter Loosen, Fraunhofer ILT, Aachen (D)

- 12:30 An Overview of the European Photonic Market
and Industry**
Dr. Thierry Robin, TEMATYS, Paris (F)
- 13:00 Status Quo and Perspectives of the European and
American Laser Market for Industrial Laser Processes**
Jürgen Rumberger, TRUMPF Laser- und Systemtechnik GmbH,
Ditzingen (D)
- 13:30 Status Quo and Perspectives of the Chinese Laser Market**
Dr. Bo Gu, BOS Photonics, Boston (USA)
- 14:00 Market Drivers and Perspectives of Laser Technology
in Microelectronics**
Dr. Dirk Müller, Coherent Inc., Santa Clara (USA)
- 14:30 Coffee Break – Visit of the Sponsors' Exhibition**
- Trends in Laser Processing**
Chairman: Prof. Peter Loosen, Fraunhofer ILT, Aachen (D)
- 15:30 Challenges in Industrial Manufacturing
of E-Drive Systems**
René Schürer, GROB-WERKE GmbH & Co. KG, Mindelheim (D)
- 16:00 Room for Creativity – Shaping the Future
with Additive Manufacturing**
Christoph Hauck, toolcraft AG, Georgensgmünd (D)
- 16:30 Challenges and Opportunities in Industrial
Femtosecond Laser Processing**
Eric Mottay, Amplitude Laser Group, Pessac (F)
- 17:00 LASER – The Tool for Digital Transformation**
Dr. Christian Hinke, RWTH Aachen University – LLT, Aachen (D)

Evening Event

**19:00–23:00 Dinner with Presentation of the
“Innovation Award Laser Technology”**
in the Coronation Hall of Aachen's Town Hall

Program

AKL'22 – Laser Technology Conference Thursday, May 5, 2022

Experts from research and industry will bring you up to date on the current trends in laser technology. Whether you are active in the automotive or aerospace industry, electrical or power engineering, mechanical engineering and microtechnology – you will get firsthand know-how and practice-relevant suggestions at the AKL'22.

Main Topics

- **Gerd Herziger Session**
 - Perspectives for Laser Source Development
 - Digital Photonic Production
- **Laser Beam Sources**
 - Solid State and Fiber Lasers
 - Ultrafast Lasers – Beam Sources
 - Diode Lasers
 - Lasers with Tailored Wavelengths
- **Laser Material Processing – Macro**
 - Laser Powder Bed Fusion LPBF
 - Cutting
 - Laser Welding
 - Laser Material Deposition
- **Laser Material Processing – Micro**
 - Micro Structuring
 - Micro Joining
 - Ultrafast Lasers – Applications
 - Polishing and Thin Film Processing
- **Laser Technology Live**
with over 50 Live Presentations



AKL'22 – Laser Technology Conference

from 7:30 Check-in and Coffee Reception

Room **Gerd Herziger Session**
Europa Chairman: Prof. Constantin Häfner, Fraunhofer ILT, Aachen (D)

8:30 **The Future of Laser Technology – New Spaces for Innovation and Growth**
Prof. Constantin Häfner, Director, Fraunhofer ILT, Aachen (D)

9:00 **Perspectives for Laser Source Development**

- Dr. Christian Schmitz, CEO Laser Technology, Member of the Group Management Board, TRUMPF GmbH + Co. KG, Ditzingen (D)
- Mark Sobey, Executive Vice President and COO, Industrial Lasers and Systems, Coherent Inc., Santa Clara (USA)
- Volker Krause, Managing Director, Laserline GmbH, Mülheim-Kärlich (D)

10:00 **Panel Discussion with the Speakers**

10:40 **Coffee Break – Visit of the Sponsor's Exhibition**

Room **Digitization in Photonic Production**
Europa Chairman: Prof. Constantin Häfner, Fraunhofer ILT, Aachen (D)

11:15 **Digitization in Photonic Production**
Dr. Joachim Döhner, Senior Director Global Sales, Business Unit Battery, KUKA Systems GmbH, Augsburg (D)

11:35 **AI in Laser Machines**
Dr. Jens Ottnad, R&D Head Data and AI, TRUMPF Werkzeugmaschinen GmbH + Co. KG, Ditzingen (D)

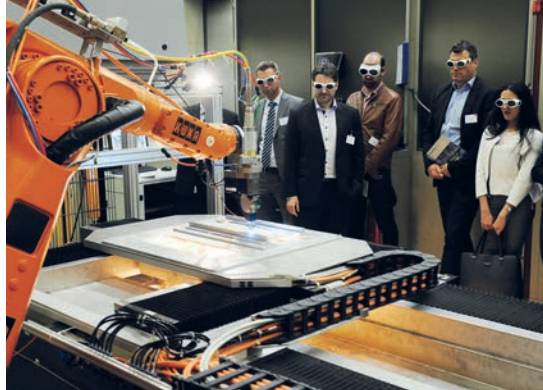
11:55 **Additive Manufacturing – Digital and Smart**
Dr. Tobias Kamps, Corporate Technology, Siemens AG, München (D)

12:15 **Panel Discussion with the Speakers**

12:30 **Lunch – Visit of the Sponsors' Exhibition**

Program

Thursday, May 5, 2022
Sessions 1–3, parallel



AKL'22 – Technology Conference

Room Europa	① Session 1: Laser Material Processing – Macro Laser Powder Bed Fusion LPBF Chairwoman: Jasmin Saewe, Fraunhofer ILT, Aachen (D) 14:00 Digital Production with Tailored Steel Materials Dr. Simon Höges, GKN Additive, Radevormwald (D) 14:30 Modelling Laser Powder Bed Fusion Processes – Goals, Achievements and Gaps Dr. Mustafa Megahed, ESI Software Germany GmbH, Essen (D) 15:00 Process and Systems Engineering to Increase Productivity in Laser Powder Bed Fusion Tim Lantzsch, Fraunhofer ILT, Aachen (D) 15:30 Coffee Break – Visit of the Sponsors' Exhibition 16:00 Shuttle Transfer to Fraunhofer ILT
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Laser Technology Live

16:30	Laser Technology Live at Fraunhofer ILT
19:30	Shuttle Transfer to Eurogress Conference Center

Evening Event

20.00–23.00 **Networking with Snacks**
at Eurogress Conference Center

Room Brüssel	② Session 2: Laser Material Processing – Micro Micro Structuring Chairman: Martin Reininghaus, Fraunhofer ILT, Aachen (D) 14:00 High-Tech Mastering for the Endless Structuring for Micro- and Nano-Functionalized Foils Dr. Tom Felbeck, temicon GmbH, Dortmund (D) 14:30 Machine Technology for Industrial Laser Micromachining Dr. Jens Holtkamp, Pulsar Photonics GmbH, Herzogenrath (D) 15:00 New Perspectives in Micro Processing with GHz Ultrashort Pulse Lasers Dr. Clemens Hönninger, Amplitude Laser Group, Pessac (F) 15:30 Coffee Break – Visit of the Sponsors' Exhibition 16:00 Shuttle Transfer to Fraunhofer ILT
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Laser Technology Live

16:30	Laser Technology Live at Fraunhofer ILT
19:30	Shuttle Transfer to Eurogress Conference Center

Evening Event

20.00–23.00 **Networking with Snacks**
at Eurogress Conference Center

Room K1–K2	③ Session 3: Laser Beam Sources Solid State and Fiber Lasers Chairman: Hans-Dieter Hoffmann, Fraunhofer ILT, Aachen (D) 14:00 High Efficiency Converter Laser Dr. Matthias Ackermann, Laserline GmbH, Mülheim-Kärlich (D) 14:30 High Average Power Ultrafast Lasers with High Flexibility for Materials Processing Dr. Dirk Sutter, TRUMPF Laser GmbH, Schramberg (D) 15:00 Scalable Short Pulse Fiber Lasers Michael Lee, IPG Laser GmbH, Burbach (D) 15:30 Coffee Break – Visit of the Sponsors' Exhibition 16:00 Shuttle Transfer to Fraunhofer ILT
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Laser Technology Live

16:30	Laser Technology Live at Fraunhofer ILT
19:30	Shuttle Transfer to Eurogress Conference Center

Evening Event

20.00–23.00 **Networking with Snacks**
at Eurogress Conference Center

Program

Friday, May 6, 2022, Sessions 1–3, parallel

Room Europa	1 Session 1: Laser Material Processing – Macro	Room Brüssel
	Cutting Chairman: Dr. Dirk Petring, Fraunhofer ILT, Aachen (D)	
8:30	Enhancing Cutting Performance with an Oscillating Laser Beam Takaaki Yamanashi, AMADA Co. Ltd., Kanagawa (JP)	8:30
9:00	Higher Power – Higher Performance? Prof. John Powell, Lulea University of Technology, Lulea (SE) / Laser Expertise Ltd., Nottingham (UK)	9:00
9:30	Use of Acoustic Resonances in Laser Beam Cutting – The Cutting Whistle Marcelo de Oliveira Lopes, Fraunhofer ILT, Aachen (D)	9:30
10:00	Coffee Break – Visit of the Sponsors’ Exhibition	10:00
	Laser Welding Chairman: Dr. Dirk Petring, Fraunhofer ILT, Aachen (D)	
11:00	Laser Beam Welding in Vacuum – Industrial Implementations by LaVa-X Dr. Christian Otten, LaVa-X GmbH, Herzogenrath (D)	11:00
11:30	Welding of Thick Metal Plates with Laser – Where are the Limits? Prof. Michael Rethmeier, Bundesanstalt für Materialforschung und -prüfung BAM, Berlin (D)	11:30
12:00	MultiPROMobil – Digital Twin Meets Multifunctional Laser Robot Martin Dahmen, Fraunhofer ILT, Aachen (D)	12:00
12:30	Lunch – Visit of the Sponsors’ Exhibition	12:30
	Laser Material Deposition Chairman: Dr. Thomas Schopphoven, Fraunhofer ILT, Aachen (D)	
14:30	Requirements of Brake Disc Coatings from an OEM Perspective Dr. Sebastian Gramstat, Audi AG, Ingolstadt (D)	14:30
15:00	Coaxial Laser Arc Hybrid LMD with Wire for Additive Manufacturing Max Fabian Steiner, Fraunhofer ILT, Aachen (D)	15:00
15:30	Automation of Hybrid Additive Process Chains with Adaptive Manufacturing Jan Bremer, BCT Steuerungs- und DV-Systeme GmbH, Dortmund (D)	15:30
16:00 Room Europa	Outlook Prof. Constantin Häfner, Fraunhofer ILT, Aachen (D)	16:00 Room Europa
16:30	End of the Lectures	16:30

Room Brüssel	2 Session 2: Laser Material Processing – Micro	Room K1–K2
	Micro Joining Chairman: Dr. Alexander Olowinsky, Fraunhofer ILT, Aachen (D)	
8:30	Micro Welding with Temporal and Spatial Beam Modulation Dr. André Häusler, Fraunhofer ILT, Aachen (D)	8:30
9:00	Laser Micro Welding of Novel Type of Hermetic Lids for Energy Storage Devices Georg Haselhorst, SCHOTT AG, Mainz (D)	9:00
9:30	Flexible Use of Laser Beam Technology for E-Mobility Dr. Jan-Philipp Weberpals, Audi AG, Neckarsulm (D)	9:30
10:00	Coffee Break – Visit of the Sponsors’ Exhibition	10:00
	Ultrafast Lasers – Applications Chairman: Prof. Arnold Gillner, Fraunhofer ILT, Aachen (D)	
11:00	Digitization for Highly Accurate 3D Laser Processing of Customer-Specific Tools Dr. Claus Dold, EWAG AG, Etziken (CH)	11:00
11:30	Ultrashort Pulsed Laser Processing for Sustainable Applications Dr. Andreas Brenner, Fraunhofer ILT, Aachen (D)	11:30
12:00	Next Level Laser Processes for Gasturbine Manufacturing Marcel Vollgold, Siemens AG, Berlin (D)	12:00
12:30	Lunch – Visit of the Sponsors’ Exhibition	12:30
	Polishing and Thin Film Processing Chairman: Dr. Edgar Willenborg, Fraunhofer ILT, Aachen (D)	
14:30	Process Chain with Laser Ablation and Laser Polishing for the Manufacturing of Interocular Lenses Axel von Wallfeld, AIXLens GmbH, Alsdorf (D)	14:30
15:00	Laser Sintering of Solid-State Battery Layers Dr. Ralph Delmdahl, Coherent LaserSystems GmbH & Co. KG, Göttingen (D)	15:00
15:30	Smart Products through Functional Layers Dr. Christian Vedder, Fraunhofer ILT, Aachen (D)	15:30
16:00 Room Europa	Outlook Prof. Constantin Häfner, Fraunhofer ILT, Aachen (D)	16:00 Room Europa
16:30	End of the Lectures	16:30

Room K1–K2	3 Session 3: Laser Beam Sources
	Ultrafast Lasers – Beam Sources Chairman: Dr. Peter Rußbüldt, Fraunhofer ILT, Aachen (D)
8:30	Advanced Photon Sources – Extending the Parameter Range of Ultrafast Lasers Hans-Dieter Hoffmann, Fraunhofer CAPS, Aachen/Jena (D)
9:00	High Energy Ultrashort Pulsed Laser Sources at 2 µm and Beyond – Results from the NUCLEUS Project Dr. Maik Frede, neoLASE GmbH, Hannover (D)
9:30	Ultrafast Thin-Disk Amplifiers Dr. Thomas Metzger, TRUMPF Scientific Lasers GmbH + Co. KG, München (D)
10:00	Coffee Break – Visit of the Sponsors’ Exhibition
	Lasers with Tailored Wavelengths Chairman: Dr. Bernd Jungbluth, Fraunhofer ILT, Aachen (D)
11:00	Green High-Power Disk Lasers and Industrial Applications Dr. Evangelos Papastathopoulos, TRUMPF Laser GmbH, Schramberg (D)
11:30	Mid-Infrared Short and Ultrashort Pulsed Lasers for Material Processing Dr. Sebastian Nyga, Fraunhofer ILT, Aachen (D)
12:00	2 µm Fiber Laser for Industrial Use Dr. Peter Fuhrberg, Fotonics Laser GmbH, Göttingen (D)
12:30	Lunch – Visit of the Sponsors’ Exhibition
	Diode Lasers Chairman: Dr. Martin Traub, Fraunhofer ILT, Aachen (D)
14:30	Blue and Infrared High Power Laser Diodes for Material Processing Dr. Harald König, OSRAM Opto Semiconductors GmbH, Regensburg (D)
15:00	Efficient High Brightness and High Power Laser Diode Bars Operated on Passively Cooled Heat-Sinks Dr. Ralf Hülsewede, JENOPTIK Diode Lab GmbH, Berlin (D)
15:30	VCSEL for 3D Sensing and LIDAR Applications Dr. Holger Mönch, TRUMPF Photonic Components, Aachen (D)
16:00 Room Europa	Outlook Prof. Constantin Häfner, Fraunhofer ILT, Aachen (D)
16:30	End of the Lectures

General Information

Locations and Opening Hours

On-Site Check-in: Eurogress Main Entrance
Monheimsallee 48, 52062 Aachen

Expert Forums

- Laser Additive Manufacturing
- Process Control & Digitization
- Quantum Technology & Photonics

Wednesday, May 4, 2022, 10:00–17:30 h
Check-in from 8:00 h

Seminar Laser Technology ABC's

Wednesday, May 4, 2022, 12:30–17:30 h
Check-in from 10:30 h

Technology Business Day

Wednesday, May 4, 2022, 12:30–17:30 h
Check-in from 10:30 h

AKL'22 – Laser Technology Conference

Thursday, May 5, 2022, 8:30–16:00 h
Friday, May 6, 2022, 8:30–16:30 h
Check-in May 5/6, 2022 from 7:30 h

Laser Technology Live

Thursday, May 5, 2022, 16:30–19:30 h
Fraunhofer ILT, Steinbachstraße 15, 52074 Aachen
(for registered participants of May 5, 2022 included)

Shuttle Transfer on May 5, 2022

Eurogress – Fraunhofer ILT: 16:00–16:30 h
Fraunhofer ILT – Eurogress: 19:30–20:00 h



Sponsors' Exhibition

Wednesday, May 4, 2022, 12:00–17:00 h
Thursday, May 5, 2022, 10:30–16:00 h
Friday, May 6, 2022, 10:00–16:00 h
Eurogress: Foyer Europa, Brüssel (1st level)
and K1–K2 (2nd level)

Awards Ceremony with Dinner

Registration necessary (fee required)
Wednesday, May 4, 2022,
19:00–23:00 h (Doors open s. www.lasercongress.org)
Krönungssaal Rathaus, Markt, 52062 Aachen

Networking with Snacks at Eurogress

Registration necessary (fee required)
Thursday, May 5, 2022,
20:00–23:00 h (Doors open s. www.lasercongress.org)

Conference Language

Lectures are presented in English and German with simultaneous interpreting.

Parking Garages

Near the conference locations:

- Eurogress: Parking Garage Eurogress, Monheimsallee (fee required)
- Coronation Hall / Town Hall: APAG Parking Garage Rathaus, Mostardstraße and Parking Garage Dom, Jesuitenstraße (fee required)

For further information regarding parking possibilities in Aachen, please visit: www.apag.de (in German)

Participation Conditions

The congress will be held in accordance with the currently valid hygiene and protection measures of the state of North Rhine-Westphalia and will be executed conforming to the "2G-Plus regulation" (access only for vaccinated and recovered persons with current negative COVID-19 test).

Registration Fee

The registration fee includes conference proceedings, lunch or snacks, coffee breaks on the booked conference day as well as the Shuttle Transfer to Laser Technology Live at Fraunhofer ILT and the City Center.

Seminar Laser Technology ABC's – May 4, 2022

- 310 € / 279 € (Early Bird Registration)
- 248 € (Members*)

Technology Business Day – May 4, 2022

- 390 € / 351 € (Early Bird Registration)
- 312 € (Members*)

Forum Laser Additive Manufacturing – May 4, 2022

- 530 € / 477 € (Early Bird Registration)
- 424 € (Members*)

Forum Process Control & Digitization – May 4, 2022

- 530 € / 477 € (Early Bird Registration)
- 424 € (Members*)

Forum Quantum Technology & Photonics – May 4, 2022

- 530 € / 477 € (Early Bird Registration)
- 424 € (Members*)

Evening Event on May 4, 2022

Dinner with presentation of the "Innovation Award Laser Technology"

- 120 €/Person (plus 19 % VAT)



Early Bird Registration

Special discounted registration fees
until March 4, 2022

AKL'22 – Technology Conference (Day 1) – May 5, 2022

- 640 € / 576 € (Early Bird Registration)
- 512 € (Members*)

AKL'22 – Technology Conference (Day 2) – May 6, 2022

- 640 € / 576 € (Early Bird Registration)
- 512 € (Members*)

Evening Event on May 5, 2022

Networking with Snacks at Eurogress

- 80 €/Person (plus 19 % VAT)

* Members

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Program subject to minor changes.

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