

Community

News

<https://doi.org/10.1515/aot-2018-0014>

Preview: Industrial Laser Technology at AKL'18

From May 2 to 4, 2018, the laser community convenes for the 12th time at AKL'18 in Aachen. Laser manufacturers, laser users and laser novices alike will have the chance to see 77 presentations on innovative applications from industry as well as the latest scientific research. The participants will also be able to experience 'Laser Technology Live', an extended lab tour at the Fraunhofer Institute for Laser Technology ILT in Europe's largest laser park.

No doubt, the AKL is the place to be for anybody interested in industrial laser technology. The program spans from a beginner's day (Seminar Laser Technology ABC) and a CXO event (Technology Business Day) to expert forums on process control and additive manufacturing. And of course, there is the 2-day main conference, and last, but not least, a wide range of networking events.

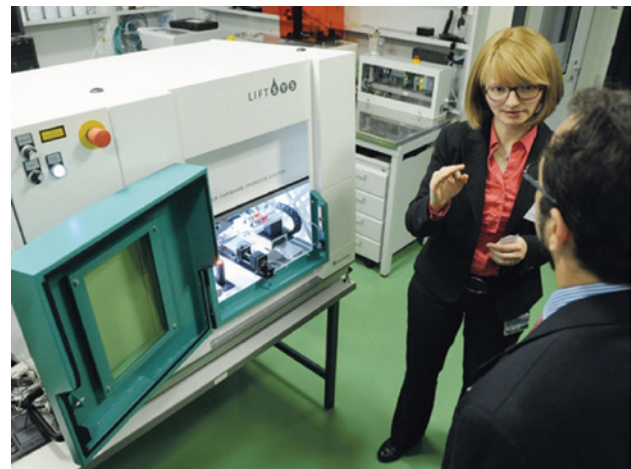
For meeting old friends and new leads the 50+ sponsor's exhibition is certainly the best occasion to do so but one should also see the evening events. The dinner for the Innovation Award ceremony is legend: It is usually held at Coronation Hall in Aachen's Town Hall. If you want to experience a thousand years of European history you should definitely attend this event.

For those who want to get the maximum of expert information, the 'Laser Technology Live' event at the Fraunhofer ILT's user center on May 3, 2018, is the place to be. Visitors to AKL'18 will be able to discuss new technological developments in depth with the experts who run the daily business there.

The laser experts will be presenting a new development targeting quality assurance in additive manufacturing. Using the example of extreme high-speed laser material deposition (EHLA), visitors will be able to see for the first time how the measurement of powder feed nozzles can be automated and standardized with a system-integrated module. This means the user knows exactly how much powder is being supplied, allowing the patented measurement technique to make a

significant contribution to ensuring process quality and stability.

In the field of ultrafast lasers with high average power, it is all about power scaling: How can the increased average power be efficiently translated into machining processes with the aim of processing metals, ceramics, and glass even faster while maintaining accuracy? Here, experts will be showcasing the two fundamental concepts: firstly, the parallelization, using multi-beam technology and secondly, machining with high repetition rates using fast deflection systems, such as a polygon scanner. Researchers will be available to answer any questions on these and other topics at over 80 live presentations.



Laser Technology Live at Fraunhofer ILT during AKL'16. Seen here: the LIFTSYS cell printer. © Fraunhofer ILT, Aachen, Germany.

Launch of the I3-Research Center Digital Photonic Production

On the evening of May 3, 2018, Fraunhofer ILT invites the participants of AKL'18 to the inauguration of the I3-Research Center DPP. In adopting the I3 format – integrated interdisciplinary institutes – RWTH Aachen University is pioneering a new and trend-setting form of interdisciplinary university collaboration.

At I3-RCDPP, 16 institutes from across six faculties will conduct research together on the use of the photon's unique physical properties for production in the future. The German federal and state governments are funding a new research



The new I3-RCDPP research facility is a further addition to the Digital Photonic Production research campus. © Carpus + Partner, Aachen, Germany.

facility for this interdisciplinary research program, and the new building will be completed in the summer of 2018.

The facility will be home to some 80 research scientists working on shaping the future of digital photonic

production over 4300 m² of laboratories and floor space. It joins the privately funded Industry Building DPP, which opened in 2016, as a further addition to the Digital Photonic Production research campus.

Last but not least

This year it will be the last AKL event for Reinhart Poprawe before he retires in the summer. So it will be worth staying for the last presentation on Friday at 4 pm, when he will give his presentation. He has acquired hundreds of millions of euro in funding for ILT and in particular, in the last years, he has shown a strong vision for technology trends. One doubts whether it will be his last occasion to present his thoughts at AKL, but certainly, it will be an exciting outlook into the development in industrial laser technology in the coming years.

www.lasercongress.de

Conference Calendar

April

SPIE Defense + Commercial Sensing

Orlando, FL, USA
15–19 April 2018
<http://spie.org/dcs>

OSA Biophotonics Congress: Biomedical Optics

Clinical and Translational Biophotonics
Optics and the Brain
Optical Tomography and Spectroscopy
Hollywood, FL, USA
03–06 April 2018
www.osa.org/en-us/meetings/osa_meetings/osa_biophotonics_congress_biomedical_optics/

Aachen Optic Days

Aachen Polymer Optics Days
International Colloquium on Glass Optics
Aachen, Germany
10–12 April 2018
www.ipt.fraunhofer.de/de/termine/konferenzseminare/aachener-optiktage.html

SPIE Photonics Europe

Strasbourg, France
23–26 April 2018
Exhibition: 24–25 April 2018
<http://spie.org/pe>

Photomask Japan 2018

Yokohama, Japan
18–20 April 2018
www.photomask-japan.org/

Optics and Photonics International Congress 2018

Yokohama, Japan
23–27 April 2018
<https://opicon.jp/>

SPIE Structured Light

Yokohama, Japan
24–27 April 2018
<http://spie.org/x127815.xml>

Laser Damage Pacific Rim

Yokohama, Japan
24–27 April 2018
<http://spie.org/x127239.xml>

May

AKL'18 International Laser Technology Congress

Aachen, Germany
2–4 May 2018
www.lasercongress.org

EOS Topical Meeting on Terahertz Science & Technology (TST 2018)

Berlin, Germany
6–9 May 2018
<http://www.myeos.org/events/tst2018>

CLEO

San Jose, CA, USA
13–18 May 2018
www.cleoconference.org

SPIE Translational Biophotonics

Austin, TX, USA
14–15 May 2018
<http://spie.org/x127816.xml>

SPIE Optical Systems Design

Frankfurt, Germany
14–17 May 2018
<http://spie.org/x126923.xml>

optatec

Frankfurt, Germany
15–17 May 2018
www.optatec-messe.de

June

LASYS

Stuttgart, Germany
5–7 June 2018
www.lasys-messe.de

SLT'18 – Stuttgart Laser Technology Forum

Co-located with LASYS
Stuttgart, Germany
5–7 June 2018
www.slt.uni-stuttgart.de

SPIE Astronomical Telescopes and Instrumentation

Austin, TX, USA
10–15 June 2018
<http://spie.org/astronomical-instrumentation.xml>

OSA Imaging and Applied Optics Congress

Orlando, FL, USA
25–28 June 2018
www.osa.org/Meetings/OSA_Meetings/OSA_Imaging_and_Applied_Optics_Congress

August

SPIE Optics + Photonics

San Diego, CA, USA
19–23 August 2018
Exhibition: 21–23 August 2018
<http://spie.org/op>

September

LANE 2018 – 10th Conference on Photonic Technologies

Fürth, Germany
3–6 September 2018
www.lane-conference.org

SPIE Security + Defence

Remote Sensing
Berlin, Germany
10–13 September 2018
Exhibition: 11–12 September 2018
<http://spie.org/sd>

SPIE Photomask Technology + EUV Lithography

Monterey, CA, USA
17–20 September 2018
Exhibition: 18–19 September 2018
<http://spie.org/x126645.xml>

FiO/LASER Science: 102nd OSA Annual Meeting

Washington, DC, USA
16–26 September 2018
www.frontiersinoptics.com/home/

ECOC European Conference on Optical Communications

Rome, Italy
23–27 September 2016
www.ecoc2018.org

October

European Optical Society Biennial Meeting (EOSAM) 2018

Delft, The Netherlands
8–12 October 2018
www.myeos.org/events/eosam2018

Photonics Asia

Beijing, China
11–13 October
<http://spie.org/x127644.xml>

Photonic Days Berlin Brandenburg

Berlin, Germany
17–18 October 2018
www.optik-bb.de/de/veranstaltungen/photonic-days-berlin-brandenburg-2018

glasstec

23–26 October 2018
Düsseldorf, Germany
www.glasstec.de

November

Advanced Solid State Lasers Conference Laser Application Conference

Boston, MA, USA
4–8 November 2018
www.osa.org/Meetings/Global_Calendar/Events/Advanced_Solid_State_Lasers_Conference

Optics and Photonics for Energy & the Environment

Sentosa Island, Singapore
5–8 November 2018
www.osa.org/Meetings/Global_Calendar/Events/Optics_and_Photonics_for_Energy_the_Environment

2019

SPIE Photonics West

San Francisco, CA, USA
2–7 February 2019
Exhibition: 5–7 February 2019
<http://spie.org/pw>

SPIE Advanced Lithography

San Jose, CA, USA
19–22 February 2019
<https://spie.org/advanced-lithography>

5. UKP-Workshop

Aachen, Germany
10–11 April 2019
www.ultrakurzpuslaser.de

Optical Interference Coatings

Santa Ana Pueblo, NM, USA
2–7 June 2019
www.osa.org/Meetings/Topical_Meetings/Optical_Interference_Coatings

SPIE Optifab

Rochester, NY, USA
14–17 October 2019
<https://spie.org/conferences-and-exhibitions/optifab>

Advanced Solid State Lasers Conference

Vienna, Austria
29 September–3 October 2019
[www.osa.org/Meetings/Global_Calendar/Events/Advanced_Solid_State_Lasers_Conference_\(1\)](http://www.osa.org/Meetings/Global_Calendar/Events/Advanced_Solid_State_Lasers_Conference_(1))

Frontiers in Optics: the 103rd OSA Annual Meeting and Exhibit/ Laser Science Conference

Washington, DC, USA
13–17 October 2019
www.osa.org/Meetings/Global_Calendar/Events/Frontiers_in_Optics_the_103rd_OSA_Annual_Meeting

News from the European Optical Society EOS

Terahertz Science & Technology (TST 2018) takes over Berlin

Berlin, Germany, 6–9 May, 2018

The European Optical Society proudly welcomes you to its 6th Topical Meeting on Terahertz Science & Technology (TST 2018) in Berlin, Germany. The topical meeting will gather around 100 participants from Europe and all over the world to the Radisson BLU Hotel, located in the heart of Berlin, between the 6th and 9th of May, 2018. The chairs of the conference are Prof. Heinz-Wilhelm Hübers from the German Aerospace Center (Germany) and Dr. Jozsef Fülöp from the University of Pecs (Hungary). This topical meeting provides a platform where the latest results in the generation, detection and use of THz radiation in science and technology will be presented and discussed.

The Keynote Speaker, Prof. Dr. Thomas Elsaesser from the Max Born Institute Berlin, Germany, will discuss non-linear terahertz spectroscopy and the basic concepts and applications in solid state physics. Several invited speakers and contributing authors will discuss various topics, including emission and detection of THz radiation, THz integrated optics, waveguiding, applications, etc.

Master classes will be given by Prof. Dr. Holger T. Grahn from the Paul Drude Institut für Festkörperelektronik, Germany, on THz QCLs, and Prof. Peter Uhd Jepsen from the Technical University of Denmark on Applications of THz time-of-flight imaging.

www.myeos.org/events/tst2018

New Topical Meeting on Waves in Complex Photonics Media: Fundamentals and Device Applications

Submission deadline: 9th April 2018

The Topical Meeting will be held in the beautiful scenery of the Island of Capri, Italy, in Anacapri, between the 4th and 7th of June, 2018. A long list of world-renowned experts in the field of optics in complex media have been invited to speak at the event. Submissions are accepted for both oral and poster presentations. The submission deadline is the 9th April. The advance program will be available on the 23rd April. The meeting will be chaired by Luca Dal Negro,



Berlin Cathedral and Museum Island in Berlin © iStock.com, Foto: Chalabala.

Boston University (USA) and Vito Mocella, Consiglio Nazionale delle Ricerche (Italy).

www.myeos.org/events/anacapri2018

Submission open for the European Optical Society Biennial Meeting (EOSAM) 2018

Submission deadline 15 April 2018

The EOS biennial meeting will be held in Delft, The Netherlands. The meeting will take place at the Delft University of Technology, on October 08–12, 2018. The Netherlands is the hot spot for photonics in Europe and the strong optics research and industry in Delft makes it a perfect location to hold the upcoming symposium.

The meeting will once again include several topical meetings, tutorials, workshops, industrial exhibition and more.

The Topical Meetings (TOMs) include:

- TOM 1 – Silicon Photonics and Guided-Wave Optics
- TOM 2 – Freeform Optics for Illumination, Augmented Reality and Virtual Reality
- TOM 3 – Optical System Design, Tolerancing and Manufacturing
- TOM 4 – Bio-Medical Optics
- TOM 5 – Metamaterials, Plasmonics and Resonant Nanophotonics
- TOM 6 – Frontiers in Optical Metrology
- TOM 7 – Organic and Hybrid Semiconductor Materials and Devices
- TOM 8 – Adaptive Optics and Information driven optical systems
- TOM 9 – Optical Tapered Fibers for Light Manipulation on the Nanoscale – NEW

Special workshops and sessions:

- EU Project Result Dissemination Session
- Grand Challenges of Photonics Session
- Tutorials on TOM topics
- Autumn Physics School on Metrology for Thin Film Materials

Prior to the actual conference program, tutorials and the autumn physics school have been organized for the conference venue on Monday 8 October. Tutorials will cover the topics of the Topical Meetings. The Autumn Physics School on Metrology for Thin Film Materials is also held on Monday 8 October, parallel to the tutorials. The school is organized as part of dissemination activity for Project 16ENG03 HYMet <https://www.hymet.ptb.eu/>.

Abstract submission

Please submit to topical meetings by 15th April 2018. Contributions are accepted for oral and poster presentations (please indicate your preference). At least one author is requested to register for the meeting separately from the abstract submission.

Industrial attendees are offered several opportunities to increase their visibility during the week. The 2-day industrial exhibition will once again be held alongside the conference program during the week. Companies are invited to send industrial posters to Topical Meeting (TOM) 3 on Optical System Design, Tolerancing and Manufacturing. There are also other exciting things planned for companies, among others, a ‘Meet and Greet’ for companies and students. More will be announced on the event website: www.myeos.org/events/eosam2018

Need help in organizing an event?

The EOS Conference Office can help. Contact our conference team at info@myeos.org.