



**AUTOMOTIVE CIRCLE**  
CONFERENCE

# **EALA – EUROPEAN AUTOMOTIVE LASER APPLICATIONS 2019**

**20<sup>TH</sup> EUROPEAN EXPERT CONFERENCE**  
**12 – 13 FEBRUARY 2019**

**CAR BODY ENGINEERING**



**OEM**

**PRESENTATIONS BY**

**BMW, Fiat Chrysler,  
General Motors,  
Volkswagen  
and Volvo**

## LASERS IN TODAY'S AUTOMOBILE PRODUCTION

On 12 and 13 February 2019, the 20th EALA, Automotive Circle's European Automotive Laser Applications conference, again gathers its network of international expert engineers in Bad Nauheim, Germany, to discuss newest developments pertaining to the innovative and effective use of lasers in automobile production.

Featuring reports from global OEM, trailblazing system suppliers as well as renowned research institutions, on latest progress in laser application, with special emphasis on the production of electric vehicles, on joining new material combinations, on further efficiency gains in laser technology and laser production processes as well as their integration in smart factory approaches, and not least on latest achievements in comprehensive quality control, the conference provides you with a profound insight into current and future possibilities of laser usage in industrial vehicle manufacturing. Use your chance to be part of this high-level information exchange with automobile engineers from all over the world.



Have your say in these discussions,  
we are looking forward to meeting  
you in Bad Nauheim

A handwritten signature in black ink that reads "Dirk Meine". The signature is written in a cursive, flowing style.

**Dr. Dirk Meine**  
Presidium  
Automotive Circle, DE

# PLUS



## MEET THE SPEAKERS

During the coffee breaks and at the beginning of the lunch breaks, the speakers of the respective preceding conference session will be available for your individual questions and further discussions!



## LIVE POLLS ON SITE

Ask your specific questions on current issues corresponding to laser-based technologies in series car body production and benefit from the answers of the conference's expert audience!



## EXHIBITION

Take advantage of the accompanying exhibition featuring up to 20 companies demonstrating their products and services pertaining to laser-based automobile production technologies!

# INTERNATIONAL OEM ADVISORY BOARD



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**Volvo Car  
Corporation, SE**



## THE CONFERENCE ADDRESSES

automobile engineers representing international OEM, involved in the development, planning and implementation of laser-based production processes, as well as experts representing corresponding system suppliers and academic research institutions.

# PROGRAMME

**TUESDAY, 12 FEBRUARY 2019**

**8.30 h** **Welcome and conference introduction**

*Dr. Dirk Meine, Automotive Circle, DE*

*Dr. Jan-Philipp Weberpals, Audi AG, DE*

## OEM STATUS REPORT

**8.45 h** **Laser welding processes at Volvo Car Corporation**

*Dr. Oscar Andersson, Volvo Car Corporation, SE*

## LASER PRODUCTION PROCESSES FOR E-MOBILITY

**9.15 h** **How does electromobility influence laser technology – Applications along the complete process chain**

*Marc Kirchhoff, Trumpf Laser- und Systemtechnik GmbH, DE*

**9.45 h** **New blue high-power diode lasers for battery production**

*Dr. Axel Luft, Laserline GmbH, DE*

**10.15 h** ☕ **Coffee and contacts | Meet the Speakers**

**11.00 h** **Laser welding processes and system solutions for high throughput lithium-ion battery production**

*Dr. Dmitrij Walter, Manz AG, DE*

**11.30 h** **Highly flexible laser processing of single batch tubes for e-cars**

*Torsten Reichl, Jenoptik Automatisierungstechnik GmbH, DE*

**12.00 h** **Scalable scan field sizes for the battery production of the future**

*Thibault Bautze, Blackbird Robotersysteme GmbH, DE*

**12.30 h** 🗣️ **LIVE POLLS IN THE AUDITORIUM**

*... on current questions pertaining to laser application in automobile production.*

**12.45 h** 🍴 **Lunch break | Meet the Speakers**

## PROCESS OPTIMISATION

**14.00 h** **Laser spot welding of zinc-coated steels – process optimization using simulation and modeling**

*Joshua Solomon, General Motors Company, US*

**14.30 h** **Modular remote laser beam welding head provides flexible application opportunities in production**

*Markus Lachenmeier, BMW Group, DE; Pravin Sievi, Scansonic IPT GmbH, DE*

**15.00 h**    **Multifocal laserwelding and its positive effects to seamquality and processtability in comparison to monofocal laserwelded joints**

*Alexander Franz, Volkswagen AG, DE*

**15.30 h**     **Coffee and contacts | Meet the Speakers**

**16.15 h**    **Innovative process automation for robot laser applications in the automotive industry**

*Thomas Flaig, Cenit AG, DE*

## **FOCUS SESSION**

**16.45 h**    **OCT update: New applications**

*The following speakers provide concise, 10-minute presentations on latest progress in the application of Optical Coherence Tomography technologies:*

- Richard Steinbrecht, Lessmüller Lasertechnik GmbH, DE
- Dr. Markus Kogel-Hollacher, Precitec GmbH & Co. KG, DE
- Jan-Patrick Hermani, Trumpf Laser- und Systemtechnik GmbH, DE
- Thibault Bautze, Blackbird Robotersysteme GmbH, DE

**17.45 h**     **Get together | Meet the Speakers**

**19.00 h**    **Networking Night**

## **WEDNESDAY, 13 FEBRUARY 2019**

### **LASER WELDING OF NEW MATERIALS AND MATERIAL COMBINATIONS**

**9.00 h**    **Fully automated joining of thermoplastic fiber-reinforced composites with metal structures in the FlexHyJoin production cell**

*Christoph Engelmann, Fraunhofer Institute for Laser Technology ILT, DE*

### **PROGRESS IN QUALITY CONTROL**

**9.30 h**    **Laser thermography feasibility for material characterization**

*Professor Umberto Galietti, Politecnico di Bari (POLIBA), Department of Mechanics, Mathematics & Management; Daniele Bassan, CRF/ Fiat Chrysler Automobiles S.p.A.; IT*

**10.00 h**    **New possibilities in quality control of laser welded components using induction thermography inspection systems**

*Dr. Christian Srajbr, Edevis GmbH, DE*

10.30 h ☕ **Coffee and contacts | Meet the Speakers**

11.15 h **Investigation on delayed cracking in laser welds of high strength steel sheets**

*Kyohei Maeda, Kobe Steel Ltd., JP*

11.45 h **AI based method to detect position and shape of all welded/soldered seams**

*Jochen Sander, Automation W+R GmbH, DE*

12.15 h 🗨️ **LIVE POLLS IN THE AUDITORIUM**

*... on current questions pertaining to laser application in automobile production.*

12.30 h 🍴 **Lunch break | Meet the Speakers**

### ADVANCED BEAM PROFILING

13.45 h **A completely new approach to fiber laser welding of automotive and e-mobility components**

*Dr. Peter Kallage, Coherent, Inc., DE*

14.15 h **Laser beam diagnostics in automotive production today and tomorrow**

*Dr. Otto Märten, Primes GmbH, DE*

14.45 h **Beamprofiling for high power lasers**

*Dr. Andreas Reichert, Metrolux optische Messtechnik GmbH, DE*

15.15 h 🗨️ **OEM CONCLUSIONS**

*Members of the OEM Advisory Board on current trends and challenges in laser-based automotive manufacturing processes*

15.30 h **Farewell address and end of the conference**

*Subject to change (status as of 29 November 2018)*



**PROGRAMME UPDATES AT:  
WWW.AUTOMOTIVE-CIRCLE.COM**



## TUTORIAL

# FUNDAMENTALS OF LASER USE IN THE AUTOMOTIVE AND SUPPLIER INDUSTRIES

11 FEBRUARY 2019, 14.00 – 18.00 H

Additional to the EALA conference, the EALA tutorial provides newcomers with the theoretical and practical fundamentals of laser application in automobile production.



### 1. Laser and laser systems

- Laser principles
- Modern types of lasers
- Design of laser working stations
- Laser remote & scanner systems

### 2. Laser materials processing for automotive applications

- Laser beam welding
- Laser beam brazing
- Laser beam cutting
- Laser beam hardening

### 3. Overview on process control systems

### 4. Trends, prospects, visions in applications and systems

## TUTORS



**Dr. Jens Standfuß**  
Fraunhofer IWS



**Johnny K. Larsson**  
Autokropolis  
Engineering, SE

## EXHIBITION AND SPONSORING

# NETWORKING FOR YOUR SUCCESS

As an exhibitor/sponsor, you can benefit on-site from the technical and personal exchange of ideas and experiences with specialists in the automotive industry.

Thus, you can

- ▶ increase clearly the visibility of your company
- ▶ expand your contacts with decision makers
- ▶ boost your brand awareness with the OEMs

The accompanying exhibition as well as the attractive sponsorship opportunities provide the ideal platform for your presence.

Decide for an exhibition package, including a full conference ticket, or place your advertisement on the lanyards, conference booklets, USB cards or pens & pads.



You have a concrete idea yourself?  
Talk to me, we will be happy to develop  
your individual appearance as an  
exhibitor/sponsor at the conference.

**Imke Rotermund**

Sales Manager

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# INFORMATIONS

## CONFERENCE FEES

### Conference

Early-bird: 1.995,- €\* (for registrations received by 11 January 2019)

Standard: 2.095,- €\*

**Tutorial:** 850,- €\*

\* zzgl. 19% MwSt.

## CONFERENCE VENUE

Hotel Dolce Bad Nauheim

Elvis-Presley-Platz 1, DE-61231 Bad Nauheim

T +49 6032 303-0, F +49 6032 303-529

info@dolcebadnauheim.com

www.dolcebadnauheim.com

We kindly ask you to make your own hotel reservation at the conference hotel, please refer to Automotive Circle. The hotel offers special room rates from 139,- € to 159,- € depending on the room category. The mentioned room rates include 5,- € breakfast per person and per day.

## FEES INCLUDE

**Conference:** Fees including full conference participation, incl. conference materials and list of delegates, the authority for downloading the presentation on the internet, luncheons, catering and the participation in the evening networking event.

**Tutorial:** The fee includes the attendance in the tutorial, the list of delegates, the proceedings and the coffee break.

## REGISTRATION AND TERMS AND CONDITIONS AT [WWW.AUTOMOTIVE-CIRCLE.COM](http://WWW.AUTOMOTIVE-CIRCLE.COM)



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## YOUR CONTACT

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**REGISTER  
NOW**

**REGISTER UNTIL 11. JANUARY AND  
BENEFIT FROM THE EARLY BIRD!**

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