

EALA – EUROPEAN AUTOMOTIVE LASER APPLICATIONS 2023

FEBRUARY 7–8, 2023 | BAD NAUHEIM, GERMANY & ONLINE

ALL TIMES IN CET (UTC+1)

TUESDAY, FEBRUARY 7, 2023

8.30 am Welcome and conference introduction

*Dr. Dirk Meine, Automotive Circle, DE
Dr. Jan-Philipp Weberpals, Audi AG, DE*

LASER BEAM WELDING IN ELECTROMOBILITY APPLICATIONS

8.45 am Laser hairpin stripping and welding from process benchmarking to inline monitoring

*Daniele Nocciolini, IMA Automation Atop Spa, IT; Professor
Ali Gökhan Demir, Politecnico di Milano, Department of
Mechanical Engineering, IT*

9.15 am Novel laser stripping and cleaning approach to enhance laser welding quality of electric motor hairpins

Dr. Majid Abbasi, Coherent, Inc., US

9.45 am Visible laser processing for e-mobility parts

Dr. Hideaki Shirai, Denso Corporation, JP

10.15 am Meet the Speakers & Coffee and contacts

11.00 am Versatile laser applications in serial production of battery cells/modules and power electronics for e-mobility

*Dr. Mauritz Möller, Johannes J. Bührle, Trumpf Laser- und
Systemtechnik GmbH, DE*

11.30 am Enhancement of laser welding for electrical drive applications by using green wavelengths

Dr. Vincentz Mann, Brose Fahrzeugteile SE & Co KG, DE

12.00 pm Increased manufacturing efficiency in battery joining technology for high volume production in e-mobility

Michael Stark, IPG Laser GmbH, DE

12.30 pm Laser welding of dissimilar materials – simulation driven optimization of process parameters

Dr. Marcin Serdeczny, Flow Science Inc., US

1.00 pm Meet the Speakers & Lunch break

WELD QUALITY CONTROL

2.15 pm Inline quality assurance strategy for remote laser beam welding at body-in-white using OCT technology

Matthias Werner, Mercedes-Benz Group AG, DE

2.45 pm Implementation of remote laser welding with OCT seam tracking in the flexible and semi-automated production of agricultural machinery cabs

*Maximilian Schmöller, AGCO GmbH, DE; Thibault Bautze-
Scherff, Blackbird Robotersysteme GmbH, DE*

3.15 pm Simplified process monitoring with 42+ sensors

Christoph Franz, 4D Photonics GmbH, DE

3.45 pm Meet the Speakers & Coffee and contacts

BEAM MODULATION

4.30 pm The impact of ultra fast frequency steering on weld quality for automotive applications

Asaf Nissenbaum, Civan Lasers, IL

5.00 pm A 360° view for welding processes using dynamic beam modulation

*Dr. Dirk Dittrich, Fraunhofer Institute for Material and Beam
Technology (IWS), DE*

SAFETY

5.30 pm A laser welding helmet and its application in automation

Yvann Djemba, Lasermet Europe GmbH, DE

6.00 pm Meet the Speakers & Get together

7.00 pm Networking Night

FIND MORE INFORMATION AT:



 SCAN ME

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WEDNESDAY, FEBRUARY 8, 2023

MATERIAL PROPERTY MANIPULATION

8.00 am Laser softening technology applied to hot stamped steel parts in the Nissan Ariya

Taishi Tarui, Nissan Motor Co., Ltd., JP; Marc Olavide Rubio, Gestamp Autmocion S.A., ES

BEAM SHAPING

8.30 am Beam shaping in laser beam welding – strategies and potentials for process optimization

Christian Hagenlocher, University of Stuttgart, Institut für Strahlwerkzeuge (IFSW), DE

ANALYSING DATA

9.00 am Data analytics and machine learning using process monitoring data - how can data driven models assist experts to generate value

Dr. Thomas Grünberger, nLight GmbH, AT

9.30 am Advantages of application independent AI-based detection methods for start and end structures of laser welded seams

Paul Gruber, Automation W+R GmbH, DE

10.00 am Artificial intelligence enhancing sensor systems for improved usability and robustness

Martin Stambke, Trumpf Laser GmbH, DE

10.30 am  Meet the Speakers &  Coffee and contacts

LASER SYSTEMS

11.15 am Development of an innovative scanning system for laser based remote cutting and hair-pin welding applications

Dr. Stefano Zarini, Optoprim s.r.l., IT; Dr. Björn Wedel, PT Photonic Tools GmbH, DE

11.45 am Battery and fuel cell production – the Eldorado for high-end laser scanning solutions

Dr. Jan-Bernd Habedank, Raylase GmbH,

12.15 pm Laser-arc hybrid welding of battery trays by using beam oscillation and assistance systems

Dr. Herbert Staufer, Fronius International GmbH, AT

12.45 pm  Meet the Speakers &  Lunch break

NEW LASER APPLICATIONS

2.00 pm Development of feedstock material and monitoring tools for laser cladding of brake disks

Dr. Andreas Wank, GTV Verschleiss-Schutz GmbH, DE

2.30 pm Laser Radar applications on the automotive shop floor

Roy Maidment, Nikon Metrology Europe NV

3.00 pm OEM CONCLUSIONS

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

3.15 pm Farewell address and end of the conference

Subject to change (Status as of December 2, 2022)



YOUR CONTACT

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