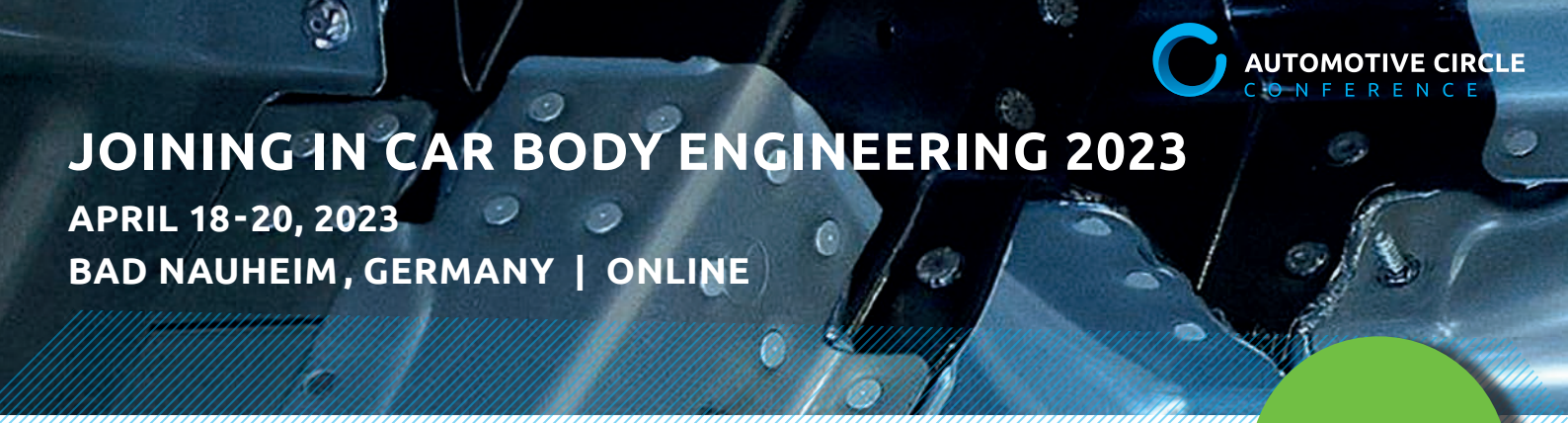

AUTOMOTIVE CIRCLE CONFERENCE

JOINING IN CAR BODY ENGINEERING 2023

APRIL 18-20, 2023

BAD NAUHEIM, GERMANY | ONLINE

MODULE 1

TUESDAY, APRIL 18, 2023

MODULE 1:
ADHESIVE BONDING AND HYBRID BONDING

9.00 am **Welcome and conference introduction**
Dr. Dirk Meine, Automotive Circle, DE

BONDING CONCEPTS

9.15 am **Adhesive bonding works – even with few joining points**
Moritz Huf, BMW Group, DE;
Dr. Holger Fricke, Fraunhofer Institute for Manufacturing Technology and Advanced Materials (IFAM), DE

9.45 am **Rapid pre-curing of epoxy-based structural adhesives for body in white applications**
Andreas Fricke, Volkswagen AG, DE;
Güven Celebi, Technical University Braunschweig, Institute of Joining and Welding (ifs), DE

SUSTAINABILITY CONSIDERATIONS

10.15 am **The global goal to contribute to CO_2 footprint reduction in automotive production / smart materials and solutions in design, production and logistics for body shop and e-mobility systems**
Holger Schuh & Michael Klotz, Henkel AG & Co KGaA, DE

10.45 am **Meet the Speakers | Coffee and contacts**

11.30 am **Sustainability in the life cycle of body shop adhesive bonding**
Urs Rheinegger, Sika AG, CH

12.00 pm **New advanced curing structural adhesives enabling modern electric vehicle design and significant energy savings in body shop**
Dr. Felix Koch, DuPont Specialty Electronic Materials Switzerland GmbH, CH

12.30 pm **Adhesives curing temperature reduction and its implications**
VIRTUAL PRESENTATION
Gurkan Sonmet, Jaguar Land Rover Ltd., UK

1.00 pm **Meet the Speakers | Lunch break**

ADHESIVE APPLICATION AND QUALITY CONTROL

2.15 pm **Packaging solutions to support precision, consistency and environmental impact of adhesive application**
Peter Larsson, Fluid-Bag Ltd., FI

2.45 pm **Future trends in dispensing technology**
Sebastian Gries, Dürr Systems AG, DE

3.15 pm **Innovative process monitoring in aluminum sheet production for maximum bonding performance**
Dr. Ramona Tosone, AMAG Austria Metall AG, AT

3.45 pm **Meet the Speakers | Coffee and contacts**

ADHESIVE BONDING IN E-MOBILITY

4.30 pm **Rheology-based classification of adhesives for stencil printing of fuel cell sealings**
Fabiano Indicatti, Robert Bosch GmbH, DE

5.00 pm **Simulation of the thermal behavior of fuel cells: The influence of gap fillers, etc.**
Tim Welters, Henkel AG & Co KGaA, DE

5.30 pm **Adhesive bonding of battery cases**
TBA

6.00 pm **Meet the Speakers | Get together**

7.00 pm **Networking Night Module 1**

(Subject to change. Status as of February 1, 2023)

Find more information at
WWW.AUTOMOTIVE-CIRCLE.COM

ADHESIVE BONDING AND HYBRID BONDING
MODERATORS:
Professor Dr. Klaus Dilger, Institute of Joining and Welding Technology (ifs), Technical University Braunschweig, DE
Professor Dr. Christian Lammel, IFF GmbH – Induktion, Fügetechnik, Fertigungstechnik, DE

AUTOMOTIVE CIRCLE CONFERENCE

JOINING IN CAR BODY ENGINEERING 2023

APRIL 18-20, 2023

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MODULE 1 MODULE 2

WEDNESDAY, APRIL 19, 2023

MODULE 1:
ADHESIVE BONDING AND HYBRID BONDING

MODULE 2:
THERMAL AND MECHANICAL JOINING

– Joint session of both modules –

8.45 am **Welcome and introduction**
Dr. Dirk Meine, Automotive Circle, DE

OEM JOINING SOLUTIONS

9.00 am **Low bake material solutions as an enabler for electrification and CO_2 neutrality**
Laurent Tollier & Raynald Bougnot, Stellantis NV, FR

9.30 am **Multi-sensor concept for inline monitoring of the influencing factors on the adhesive filling level during automotive hem flange bonding**
Kay Hermannsdörfer, Audi AG, DE;
Lennart Stohrer, Laboratory for Machine Tools and Production Engineering (WZL), RWTH Aachen University, DE

10.00 am **New production route for aluminium doors**
Christian Borowetz, Volkswagen AG, DE

10.30 am **Meet the Speakers | Coffee and contacts**

CHALLENGING JOINTS

11.15 am **Challenges for future integrations of joining technologies in an increasingly volatile environment from the supplier's perspective**
Martin Ivanjko, Arnold Umformtechnik GmbH & Co. KG, DE

11.45 am **Increased flexibility for single-sided joining by a noise-reduced bolt-setting process and innovative fastener developments**
Dennis Henke, Böllhoff Verbindungstechnik GmbH, DE

12.15 pm **Overview of the Range Rover and Range Rover Sport joining technologies**
Faizan Arshad, Jaguar Land Rover Ltd., UK;
Dr. Matthias Wissling, Stanley Industrial – Tucker GmbH, DE

12.45 pm **Meet the Speakers | Lunch break**

NEW THINKING IN QC AND PRODUCTION

2.00 pm **Non-destructive testing of friction element welded joints using active thermography**
Toni Müller, Ejot SE & Co. KG, DE

2.30 pm **The AI-Inspector: Quality check in body-in-white production with machine learning – the third eye for the worker**
Dr. Matthias Reichenbach, Mercedes-Benz AG, DE

3.00 pm **Integrated processes – Welding in the composite tool inside the servo press**
Waldemar Garus, Nimak GmbH, DE;
Thomas Teipel, Heru Werkzeugbau GmbH & Co. KG, DE

3.30 pm **Meet the Speakers | Coffee and contacts**

– End of Module 1 –

MODULE 2:
THERMAL AND MECHANICAL JOINING

BATTERY CASE JOINING

4.00 pm **Combining tactile laser welding with beam wobbling to improve weld quality of 6xxx aluminum alloys for manufacturing of e-mobility parts**
Dr. Axel Luft, Scansonic MI GmbH, DE;
Prof. Pasquale Franciosa, WMG, University of Warwick, UK

4.30 pm **Mechanical fastening solutions for battery trays: Design, testing and validation**
Dr. Amer Mahlme, Profil Verbindungstechnik GmbH, DE

NEW OLD JOINING TECHNOLOGIES

5.00 pm **An innovative thermally decoupled welding insert to join all multi-material combinations on a standard BIW assembly line**
Sean Farrell, Gaming Engineering, FR

5.30 pm **Innovative thread technology as the main requirement for cast aluminium structures in modern vehicle construction**
Michael Stumpf, Böllhoff Verbindungstechnik GmbH, DE

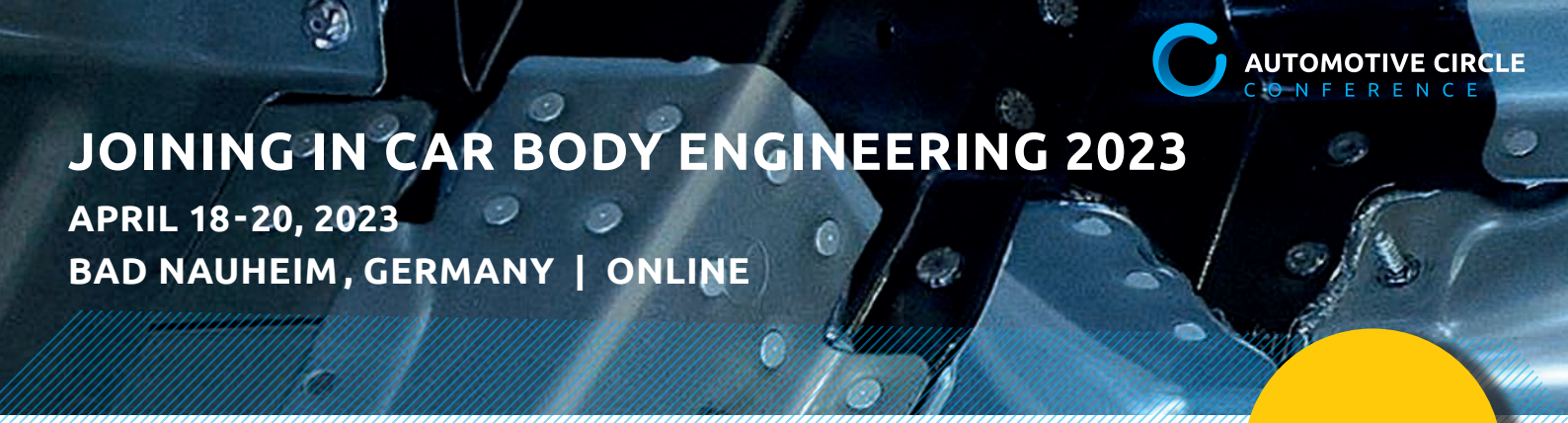
6.00 pm **Meet the Speakers | Get together**

7.00 pm **Networking Night Module 2**

(Subject to change. Status as of February 1, 2023)

ADHESIVE BONDING AND HYBRID BONDING MODERATORS:
Professor Dr. Klaus Dilger, Institute of Joining and Welding Technology (ifs), Technical University Braunschweig, DE
Professor Dr. Christian Lammel, IFF GmbH – Induktion, Fügetechnik, Fertigungstechnik, DE


THERMAL AND MECHANICAL JOINING MODERATORS:
Professor Dr. Stefan Böhm, University of Kassel, Institute for Production Technology and Logistics, DE
Dr. Dirk Meine, Automotive Circle, DE

AUTOMOTIVE CIRCLE CONFERENCE

JOINING IN CAR BODY ENGINEERING 2023

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MODULE 2

THURSDAY, APRIL 20, 2023

MODULE 2: THERMAL AND MECHANICAL JOINING

USING RESISTANCE

8.30 am **Efficient car body production – current challenges in resistance spot welding**
Dirk Altnau & Torsten Wegner, BMW Group, DE

9.00 am **Teach caps for resistance spot welding and clinching**
Florian Auernhammer, Volkswagen AG, DE

9.30 am **Resistance spot riveting of mixed materials**
Graham Musgrove, Howmet Fastening Systems, US;
Udo Schulz, CenterLine Germany GmbH, DE

10.00 am **Meet the Speakers | Coffee and contacts**

MECHANICAL INNOVATIONS

10.45 am **Sustainability and versatility of self-piercing riveting – Innovative approaches and future trends**
Prof. Marion Merklein, Friedrich-Alexander-Universität Erlangen-Nürnberg, Department of Mechanical Engineering, Institute of Manufacturing Technology (LFT), DE

11.15 am **Volumelock: A new method of measuring SPR cross sections to rank solutions and predict joint strength**
Dr. Paul Briskham, Atlas Copco IAS UK ltd, UK

11.45 am **New self-piercing hat nut for tight mechanical joints in steel and aluminum car body parts**
Dr. Markus Hirschmann, Richard Bergner Verbindungstechnik GmbH & Co. KG, DE

12.15 pm **Vision pre-hole centering to improve flow drill fastening processes with pre-holes**
Andreas Kiefer, Ali Jamehbozorg, Atlas Copco – IAS Division,

12.45 pm **Meet the Speakers | Lunch break**

2.00 pm **A new laser-assisted mechanical joining system with industrial production readiness**
Klaus Krastel, IPG Laser GmbH, DE;
Dr. Wolfgang Pfeiffer, Tox Pressotechnik GmbH & Co. KG, DE

PRESS HARDENED STEELS

2.30 pm **Analysis of welded joint fatigue performance on press hardening steel**
Prof. Hardy Mohrbacher, Niobelcon b.v., BE

3.00 pm **New hot forming steels – application potential under consideration of joining processes and manufacturing technologies**
Janko Banik & Dr. Peter Ohse, Thyssenkrupp Steel Europe AG, DE

OEM CONCLUSIONS

3.30 pm **The conference's OEM Advisory Board experts on trends and current challenges in car body joining technology.**

3.45 pm **Farewell address and end of the conference**

(Subject to change. Status as of February 1, 2023)

YOUR CONTACT
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maike.jerutz@vincentz.net

Registration and Terms & Conditions at
WWW.AUTOMOTIVE-CIRCLE.COM

THERMAL AND MECHANICAL JOINING
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