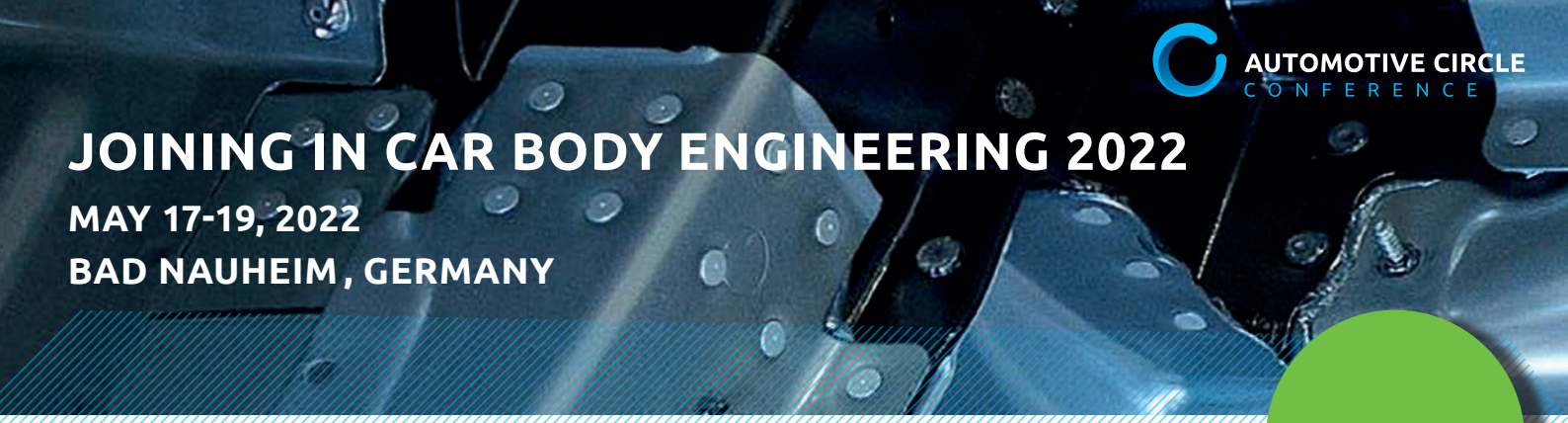


AUTOMOTIVE CIRCLE CONFERENCE

JOINING IN CAR BODY ENGINEERING 2022

MAY 17-19, 2022

BAD NAUHEIM, GERMANY

MODULE 1

TUESDAY, MAY 17, 2022

MODULE 1:
ADHESIVE BONDING AND HYBRID BONDING

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

STRUCTURAL ADHESIVES

9.00 am **New structural body shop adhesives offering superior mechanical performance at low curing conditions meeting new body design requirements**
Heike Marhofer, Mercedes-Benz AG, DE; Dr. Andreas Lutz, DuPont Performance Materials International Sàrl, CH

9.30 am **A new global structural adhesive for Ford Motor Company – development and application**
Stefan Axmacher, Ford-Werke GmbH, DE; Urs Rheinegger, Sika Automotive AG, CH

10.00 am **New two component structural PU adhesives with excellent durable adhesion on surface treated aluminum for assembly shop bonding**
Dr. Andreas Lutz, DuPont Performance Materials International Sàrl, CH

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

FILLING GAPS

11.15 am **Structure-relevant Thermal Interface Materials in new e-mobility designs**
Holger Schuh, Henkel AG & Co. KGaA, DE

11.45 am **Gap filler thermal interface materials in automotive battery systems**
Victor Schmadalla, Audi AG, DE; Dr. Holger Fricke, Fraunhofer Institute for Manufacturing Technology and Advanced Materials (IFAM), DE

12.15 pm **A new acoustic pumpable foam technology to enable automation and higher design flexibility**
Björn Funke, Sika Automotive AG, CH

12.45 pm **Live polls in the auditorium**

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

BONDING OF COMPOSITES

2.15 pm **Reinforcing thin press-hardened components by means of fusion bonded FRP ribs**
Christian Gundlach, Technische Universität Braunschweig, Institute of Joining and Welding / Open Hybrid LabFactory e.V., DE

2.45 pm **Induction joining for thermoplastic fiber reinforced polymer composites and metals for automotive applications**
Stefan Weidmann, Leibniz-Institut für Verbundwerkstoffe GmbH / Technische Universität Kaiserslautern, DE

THE ADHESIVE BONDING LIFE CYCLE

3.15 pm **Smart data acquisition to train an AI model for robotic adhesive dosing**
Manuel Michiels, Flanders Make, BE

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

4.30 pm **Method development for the simulation of the fatigue behavior of elementally bonded structures in car body engineering**
Nils Kohlmey, Volkswagen AG, VW Commercial Vehicles, DE

5.00 pm **Smart visualization for achieving long-term stabilization in automotive adhesion**
Nao Terasaki, National Institute of Advanced Industrial Science and Technology (AIST), Sensing System Research Center (SSRC), JP

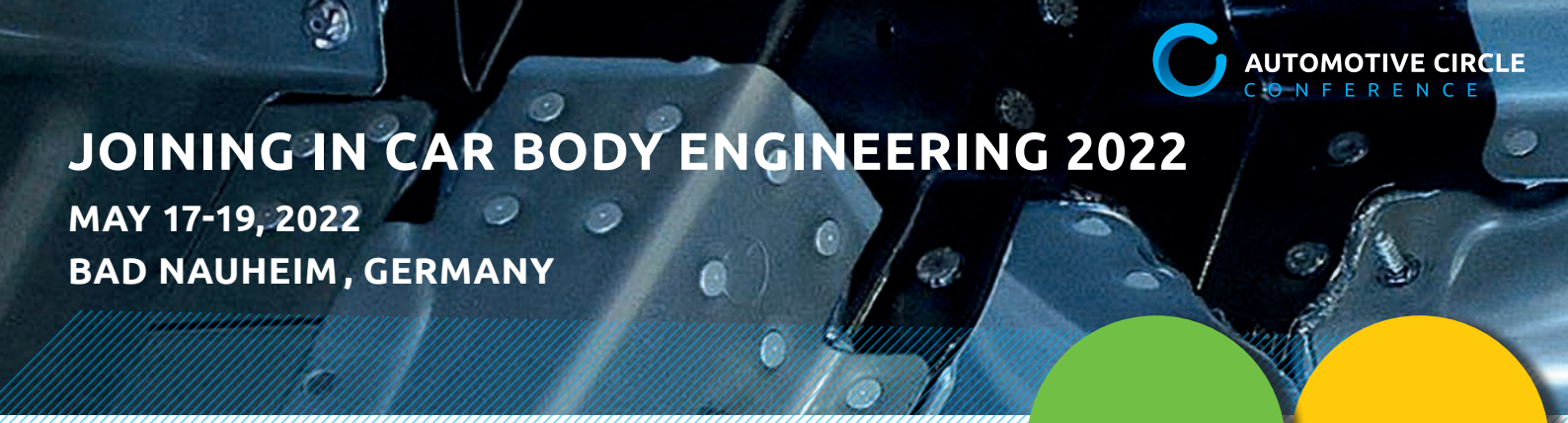
5.30 pm **Efficient debonding of adhesively bonded joints in car body repair**
Nick Chudalla, University of Paderborn, Laboratory of Material and Joining Technology (LWF), DE

6.00 pm **Meet the Speakers / Get-Together**

7.00 pm **Networking Night Module 1**

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 2022

MAY 17-19, 2022

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MODULE 1 MODULE 2

WEDNESDAY, MAY 18, 2022

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 CAR BODY JOINING PROJECTS

9.00 am **Process safe and cost-efficient joining technology in the BMW iX**
Andreas Luger, BMW Group, DE

9.30 am **Forming assisted arc plug welding (FA-APW) and plug shape optimization: Innovative solutions facilitated for high-strength seat frame assembly**
Ms. Dooyoung Kim, Hyundai Motor Company, KR; Prof. Yeongdo Park, Dong-Eui University, KR

10.00 am **Smart-Arc-Vision – With vision and heart to the Arc 2.0**
Dr. Christian Kotschote, Audi AG, DE

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

JOINABILITY STUDIES

11.15 am **A validated overview of spot joining technologies for light-weight materials in body structure assembly**
Prof. Mark White, Alumobility, UK; Julien Laye, Constellium, FR

11.45 am **AI-driven engineering of joining processes**
Dr. Mathias Jäckel, Fraunhofer Institute for Machine Tools and Forming Technology (IWU), DE

12.15 pm **Metallurgical aspects regarding the weldability of high-strength automotive steels**
Prof. Hardy Mohrbacher, NiobelCon bvba, BE

12.45 pm **Live polls in the auditorium**

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

IMPROVING JOINT PERFORMANCE

2.15 pm **Numerical simulation of self-piercing riveting (SPR) joints: From joining to crash and fatigue behavior**
Dr. Florian Hönsch, Magna Steyr Fahrzeugtechnik AG & CO KG, AT

2.45 pm **Additive manufacturing of car body components in high strength steels**
Dr. Martin Hillebrecht, Edag Engineering AG, DE; Dr. Matthias Höfemann, Salzgitter Mannesmann Forschung GmbH, DE

3.15 pm **Blind rivet nut technology as a versatile fastening solution for battery packs**
Xavier Sutz, Böllhoff Otalu SAS, FR

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

– End of Module 1 –

MODULE 2: THERMAL AND MECHANICAL JOINING

PROCESS INNOVATIONS I

4.30 pm **Evolved mechanical joining technologies for a new class of ultra-high-strength boron manganese steels (34MnB5)**
Lukas Götz, Salzgitter Mannesmann Forschung GmbH, DE

5.00 pm **Innovative plasma based hybrid processes for stud welding and joining**
Dr. Christian Reis, Tucker GmbH, DE

5.30 pm **Electromagnetic pulse technology (EMPT) in e-mobility applications**
Kaj Riesterer, PSTproducts GmbH, DE

6.00 pm **Meet the Speakers / Get-Together**

7.00 pm **Networking Night Module 2**

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 2022

MAY 17-19, 2022
BAD NAUHEIM, GERMANY

MODULE 2

THURSDAY, MAY 19, 2022

MODULE 2:
THERMAL AND MECHANICAL JOINING

ADVANCES IN SPOT WELDING

8.30 am **Increase of body shop productivity by predictive maintenance for welding guns**
Johannes Berwanger, Festo SE & Co. KG, DE; Dr. Martin Brandhuber, BMW Group, DE

9.00 am **Vision angle improvement through P-RSW on small aluminium door flanges**
Mihai-Vasile Radu, Groupe Renault, FR

9.30 am **How to improve the weld strength on 2000MPa press hardened steels?**
Yohan Merdji, Laurent Cretteur, ArcelorMittal R&D, FR

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

10.45 am **Projection welding of fasteners to UHSS materials with controlled pulse resistance welding**
Sean Hubberstey, CenterLine (Windsor) Ltd., CA

11.15 am **Extension of the process boundaries in resistance spot welding – New degrees of freedom through the integration of the gun drive**
Maximilian Wohner, Bosch Rexroth AG, DE

PROCESS INNOVATIONS II

11.45 am **Cold joining in hot sheets – Integration of standard-compliant nuts in ultra-high-strength steel components**
Dr. Sebastian Meyer, Dr. Amer Mahlme, PROFIL Verbindungstechnik GmbH & Co. KG, DE

12.15 pm **Live Polls on the auditorium**

12.30 pm **Meet the Speakers / Lunch break**

1.45 pm **Simulation based distortion management for multiple stage assembly of welded structures**
Dr. Tobias Loose, Dr. Loose GmbH, DE; Dr. Sujit Chatterjee, Jaguar Land Rover Ltd., UK

2.15 pm **Joining technology developments for riveting press formed sheet to aluminium die castings**
Dr. Paul Briskham, Atlas Copco IAS UK Ltd, UK

2.45 pm **Assistance systems for arc and laser hybrid welding of battery trays in the service of electromobility**
Dr. Herbert Staufer, Wolfgang Scherleitner, Fronius International GmbH, AT

OEM CONCLUSIONS

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

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

Subject to change (Status as of 18 January 2022)

YOUR CONTACT
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REGISTRATION & TERMS AND CONDITIONS AT:
WWW.AUTOMOTIVE-CIRCLE.COM

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