



4th International Conference

Science meets Tires

Perspectives for Tire Technology

April 24 - 25, 2018 in Aachen

www.science-meets-tires.com

About Science meets Tires



Chairman

Dr. Gerard Nijman, KraussMaffei Berstorff GmbH

The contact between a vehicle and the road is exclusively generated by tires. They determine the transmission and the entire dynamics. The demands on the tires, their development and production steadily increase. A maximum in efficiency, safety and comfort is priority. The foundations are being created across the entire value chain of a tire – from the research and product development to the raw material supplier, the tire manufacturing and the quality assurance. “Science meets Tires – Perspectives for Tire Technology” is dedicated to these subjects. The Institute of Plastics Processing (IKV) and the Institute for Automotive Engineering (ika) at RWTH Aachen University are organizing this international conference for the second time. The thus created interdisciplinary exchange between experts from industry and research copes with the importance of the tire for the automotive industry. “Science meets Tires – Perspectives for Tire Technology” simultaneously serves as a basis for innovation. Come and join us.

Objectives

After three successful conferences in the past, “Science meets Tires – Perspectives for Tire Technology” is an established interdisciplinary platform for professional dialogue between tire experts and specialists in industry and research.

Topics

The presentations and discussions cover the entire process chain and provide an outlook on future trends and developments. The thematic focus this year includes the design, dimensioning and testing of tires. The requirements of the automotive industry and innovations in processing will also be presented.



Tuesday, April 24, 2018

- 8.30 **Registration**
- 9.00 **Welcome and Opening**
Prof. Dr.-Ing. Christian Hopmann,
Institute of Plastics Processing (IKV),
Aachen, Germany
Prof. Dr.-Ing. Lutz Eckstein,
Institute for Automotive Engineering (ika)
Aachen, Germany
Trends and Requirements
- 9.30 **Tire technology development in a new mobility ecosystem**
Dipl.-Ing. Jan Racké, Goodyear Innovation Center, Colmar-Berg, Luxemburg
- 10.00 **OE development requirements and directions in the past, today and in the future**
Carsten Boltze, Apollo Tyres Global R&D B.V., Enschede, The Netherlands
- 10.30 Coffee Break
- 11.00 **Wheel Future Plus**
Klaus Debus, Debus Innotech GmbH, Hamburg, Germany
- 11.30 **Road Friction Estimation: Technologies and Applications**
Dr. Ari Tuononen, RoadCloud Oy, Espoo, Finland
- 12.00 Lunch Break
Friction
- 13.30 **Correlation between the tire dry grip and LAT100 results**
Marzieh Salehi, University of Twente, Enschede, the Netherlands
- 14.00 **Influence of testing surface on tire lateral force characteristics**
Christian Ludwig, Hyundai Motor Europe Technical Center GmbH, Rüsselsheim, Germany
- 14.30 **Can we get the road into lab? Challenges in tire testing**
Christian Carrillo, Institute for Automotive Engineering (ika), Aachen, Germany
- 15.30 **Institute Tour**
- 17.30 **Break - time for hotel check-in**
- 19.30 **Conference Dinner**
Restaurant „Elisenbrunnen“
Friedrich-Wilhelm-Platz 14
52062 Aachen, Germany



Wednesday, April 25, 2018

- 8.45 **Opening for the second day**
Dr. Gerard Nijman, KraussMaffei Berstorff GmbH Hannover, Germany
Tire Testing and Modelling
- 9.00 **Advanced measurements to enhance and validate tire simulation models**
Oliver Sipply, Institute for Automotive Engineering (ika), Aachen, Germany
- 9.30 **Tyre Transient Testing Developments**
Marco Furlan, Jaguar Land Rover Ltd., Coventry, Great Britain
- 10.00 **Improved identification of transient MF-Tyre/ MF-Swift parameters**
Willem Verstedden, Tass International, Helmond, The Netherlands
- 10.30 Coffee Break
Material Properties
- 11.00 **Liquid Rubbers in Tire Formulations**
Ralph Boehm, Kuraray Europe GmbH, Hattersheim, Germany
- 11.30 **Characterization of suffer tire tread compounds by Large Amplitude Oscillating Shear (LAOS)**
Dr. Michael Heinz, Evonik Research Efficiency GmbH, Wesseling, Germany
- 12.00 **Rheological analysis of the processability of tire compounds using an Online-Rheometer**
Carsten Christ, Institute of Plastics Processing (IKV), Aachen, Germany
- 12.30 Lunch Break
Process Technologies
- 14.00 **How to join the Internet of Tires - now**
Dr. Armin Kraus, 4JET Technologies GmbH, Alsdorf, Germany
- 14.30 **Analysis of melt flow in tangential internal mixers**
Annika Lipski, Institute of Plastics Processing (IKV), Aachen, Germany
- 15.00 **Strainers – current developments and new opportunities**
Johannes Jennissen, Rado Engineering GmbH, Lippstadt, Germany
- 15.30 **Final remarks**
Prof. Dr.-Ing. Christian Hopmann,
Institute of Plastics Processing (IKV), Aachen, Germany
Prof. Dr.-Ing. Lutz Eckstein,
Institute for Automotive Engineering (ika) Aachen, Germany

Event information



Initiating institutes

Institute of Plastics Processing (IKV) in Industry and the Skilled Crafts at RWTH Aachen University

Prof. Dr.-Ing. Christian Hopmann

Postal address: Seffenter Weg 201, 52074 Aachen, Germany

Institute for Automotive Engineering (ika)

RWTH Aachen University, Prof. Dr.-Ing. Lutz Eckstein

Postal address: Steinbachstr. 7, 52074 Aachen, Germany

About IKV

Institute of Plastics Processing at RWTH Aachen University, headed by Prof. Dr.-Ing. Christian Hopmann, is europe-wide the biggest research and education institute engaged in the field of plastics processing enjoying outstanding reputation. More than 300 staff are employed in the four specialist departments of Injection Moulding, Extrusion and Rubber Technology, Part Design and Materials Technology, and Composites and PU Technology. IKV is run by an Association of Sponsors, which currently has a membership of over 290 plastics companies from all over the world.

www.ikv-aachen.com

About ika

Institute for Automotive Engineering (ika), directed by Prof. Dr.-Ing. Lutz Eckstein, is Europe's leading vehicle technology institute. Its activities cover all areas of the vehicle. ika is divided into ten business areas: Chassis, Body, Drivetrain, Electrics/Electronics, Acoustics, Driver Assistance, Vehicle Concepts, Thermal Management, Strategy and Consulting as well as Driver Experience and Performance. Measurements of tire characteristics, their simulation-based reproduction and basic studies on the topic „tires“ have always been a major field of research and development within ika's Chassis department.

www.ika.rwth-aachen.de

Organisation

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Content related questions about the conference

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Event information



Event venue

Institute for Automotive Engineering (ika)
RWTH Aachen University
Steinbachstraße 7, 52074 Aachen, Germany

Attendance fee

The attendance fee is EUR 920. The fee includes the conference proceedings, the conference dinner, lunch and drinks during the breaks (catering is subject to VAT). Bank and transfer charges to be paid by the participants.

Application

Please register online on www.ikv-akademie.de. A separate form should be used for each applicant. You can also download the programme online. After your registration, you will receive confirmation of your application and an invoice for your attendance fee via post. The applications will be dealt with in the order of receipt.

Room reservation

If you need help with room reservation, please contact the aachen tourist service e.V. (www.aachen-tourist.de/hotels).

Phone: +49 (0) 241 18029-50 or -51,
E-mail: incoming@aachen-tourist.de

Conference papers

The conference papers will be distributed at the beginning of the conference.

Data protection

In accordance with the German Data Protection Act, we would like to point out that we will keep your address in a database and process it with the help of automatic processes.

Cancellations

Please send any cancellations in writing to the IKV. If the cancellation is made by April 9, 2018, we will refund the full paid-up sum less a processing charge of EUR 70. In the event of a cancellation after this date, full attendance fee must be paid, and we will send you the conference papers. IKV and ika reserve the right to cancel the event. If this happens, the attendance fees will be refunded in full. The institutes will not be responsible for other obligations over and beyond this.