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chassis.tech plus 2021

chassis.tech plus

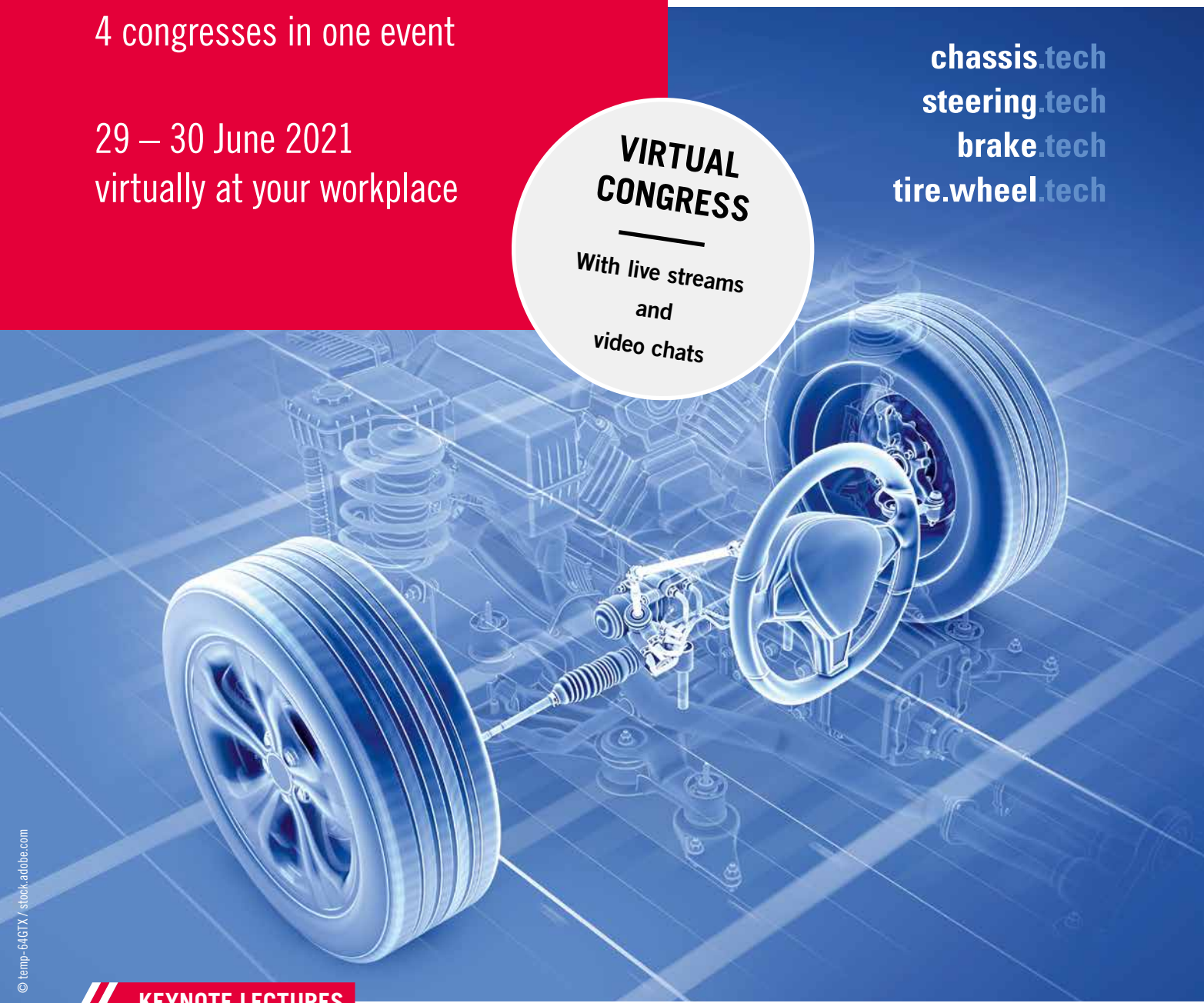
4 congresses in one event

29 – 30 June 2021
virtually at your workplace

VIRTUAL CONGRESS

With live streams and video chats

chassis.tech
steering.tech
brake.tech
tire.wheel.tech



KEYNOTE LECTURES

Audi Sport GmbH / BMW AG / BMW Motorrad /
Hyundai Motor Company / Dr. Ing. h.c. F. Porsche AG /
Robert Bosch Automotive Steering GmbH / Robert Bosch GmbH

TÜV SÜD

ONE FOR ALL
4 congresses in one event

chassis.tech plus
The chassis and automated driving systems in a tradeoff between dynamics and comfort

Improving chassis functions with methods, innovations, and driving simulators

chassis.tech
Active chassis systems – development process, predictive models, and NVH optimization

steering.tech
Modern steering systems and all-wheel steering, steer-by-wire, and holistic development methods

brake.tech
Safe braking systems – testing technology, brake dust analysis, and electrification

tire.wheel.tech
Innovative tire-wheel components – optimized testing methods for vehicle dynamics, legislation, and the environment

12TH INTERNATIONAL MUNICH CHASSIS SYMPOSIUM

Attend virtually via live streams in all sessions.

Prof. Dr. Peter E. Pfeffer
Hochschule München University of Applied Sciences
Scientific Director of the Symposium

Welcome

The chassis still has a great future. After all, it has the vital job of transforming the commands from the driver to the wheels and the road. Only a car's steering, brakes, and wheel suspension ensure that passengers and goods are carried to their destination safely, precisely, and comfortably, and even in a sporty manner if preferred. These many different tasks require chassis engineering that has a deep understanding of the systems involved and also takes into account the two mega trends of powertrain electrification and automated driving.

chassis.tech plus, which is being held for the 12th time in June 2021, is a unique event throughout Europe that will bring together numerous leading experts in chassis systems, steering, brakes, and tires/wheels from all over the world for an industry-wide exchange of ideas and a transfer of knowledge. Renowned speakers from industry and research will discuss the very latest developments in the chassis, steering systems, brakes, and wheels/tires in four parallel strands of lectures.

You can also look forward to keynote lectures given by Peter Langen (BMW), Dr. Moo Sang Kim (Hyundai), Dr. Ingo Albers (Porsche), Jennifer Endres (Bosch Automotive Steering), and Dr. Gero Nenninger (Robert Bosch) on the first day of the symposium. The keynote lectures presented by Markus Hamm (BMW Motorrad) and Steffen Bamberger (Audi Sport) on the second day promise further concentrated information on the latest issues relating to the chassis.

We look forward to welcoming you to the virtual chassis.tech plus 2021 and hope you have an exciting and informative conference.

Stay at the cutting edge!

- Highly relevant technical papers presented by renowned speakers
- Networking in the international expert community
- Innovative products and services

One for all – 4 congresses in one event

The International Munich Chassis Symposium is the key worldwide meeting place for the chassis community in the fields of the chassis, steering, brakes, and tires/wheels.

The 1st day will be taken up by the interdisciplinary section chassis.tech plus with two parallel sessions of lectures in the afternoon.

The symposium will focus on overriding issues relating to chassis systems and vehicle dynamics, before dividing up on the 2nd day into the following four parallel sections concentrating on the chassis, steering, brakes, and tires/wheels:

- chassis.tech
- steering.tech
- brake.tech
- tire.wheel.tech

In the afternoon, the parallel sections will merge together again for the interdisciplinary section chassis.tech plus.

The focus of the 2021 conference will be on new chassis functions, steer-by-wire systems, brake dust analysis, and tire tests. It will examine ways to more sustainably meet the customers' increasing demands regarding agility and comfort as well as the requirements of legislation and the environment.

Participate virtually with our event app and follow the presentations via live streams. You have the opportunity to network with your industry colleagues via numerous functions.

chassis.tech plus 2021 as a virtual congress

Participate virtually via live streams and take advantage of our numerous networking opportunities.

The event app offers you

- Q&A feature in the live streams
- „Meet the speakers" in breakout sessions
- 1:1 video chats with attendees, exhibitors and speakers
- a virtual networking area
- live polls
- your personal program overview
- a virtual exhibition
- all available conference documents in one place for download
- as well as other useful functions

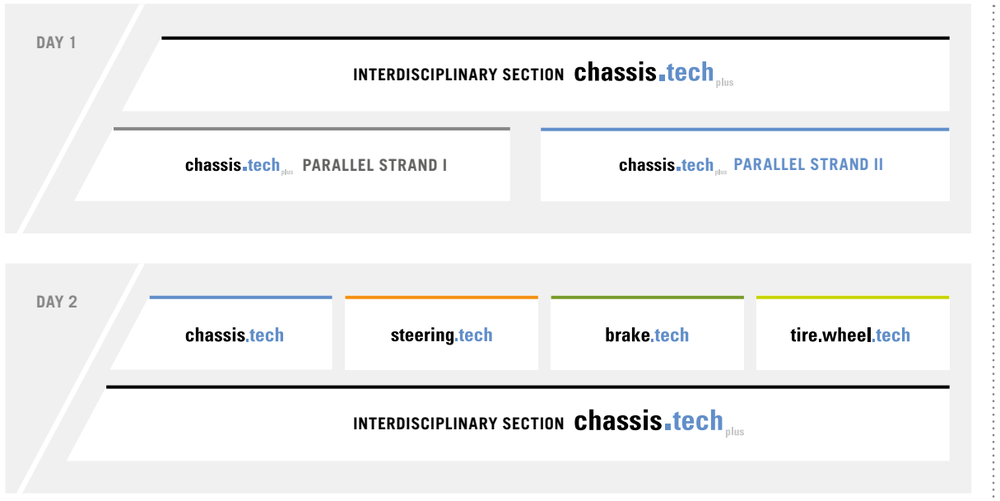
Meet the Speakers

You have not yet been able to ask all the questions in the live Q&As? Or you just thought of that one relevant question?

Then meet the speakers of the different sessions for a group conversation via video chat. Take advantage of the breaks and ask more in-depth questions about the topics covered in the previous sessions in the video chat rooms.

Time slots of 20 minutes each are planned.
The chat rooms can hold up to 50 people.
Due to the international nature of the event, English will be spoken in the chat room.

Don't miss this opportunity to ask further questions and get more ideas for your future work.



Accompanying exhibition

A virtual trade exhibition will be taking place on both conference days. Manufacturers and suppliers of the automotive industry will present the latest developments in chassis technology to the specialist audience.

Participants

- Manufacturers of passenger cars and commercial vehicles and their suppliers
- Development service providers
- Universities and research institutes
- Manufacturers of measuring, testing, and simulation systems
- Authorities, associations, and testing institutes

Prof. Dr. Peter E. Pfeffer
Hochschule München
University of
Applied Sciences

Scientific Director of the Symposium,
Head of chassis.tech plus section

Dr. Alexander Heintzel
Editor-in-Chief
ATZ | MTZ Group,
Springer Nature

Michael Reichenbach
Vice Editor-in-Chief ATZ,
Springer Nature

Our four Scientific Advisory Boards, which are made up of prominent figures from the relevant field, provide support during the planning phase of the conference and help to identify suitable topics.

chassis.tech

Dr. Veit Held
Opel Automobile GmbH

Head of chassis.tech section

Egbert Bakker
Volvo Car Group, Sweden

Prof. Dr. Lutz Eckstein
RWTH Aachen University

Friedrich Eichler
Volkswagen AG

Dr. Christoph Elbers
ZF Group

Prof. Hideo Inoue
Kanagawa Institute of Technology, Japan

Prof. Dr. Pim van der Jagt
AB Dynamics Europe GmbH

Thomas Kutsche
ZF Group

Prof. Dr. Markus Lienkamp
TU Munich

Heinz Müllner
MAN Truck & Bus SE

Stefan Resch
TÜV SÜD AG

Prof. Bernhard Schick
Kempten University of
Applied Sciences

Timo Schöning
Hyundai Motor Europe
Technical Center GmbH

Christoph Schulenburg
Mercedes-Benz AG

Martin Schwarz
BMW Group

steering.tech

Dr. Christoph Bittner
Dr. Ing. h. c. F. Porsche AG

Head of steering.tech section

Daniel Alt
Joyson Safety Systems
Aschaffenburg GmbH

Thilo Bitzer
ZF Group

**Prof. Dr. Dr.
Hans-Hermann Braess**
(Honorary Chairman)

Jennifer Endres
Robert Bosch
Automotive Steering GmbH

Frank Esser
Ford-Werke GmbH

Hans Joachim Kieserling
Mercedes-Benz AG

Hirofumi Matsuoka
JTEKT Corporation, Japan

Bertram Möller
Nexteer Automotive Germany GmbH

Prof. Dr. Manfred Plöchl
TU Vienna, Austria

Kristof Polmans
thyssenkrupp Presta AG,
Liechtenstein

Dr. Matthias Schölzel
BMW Group

Dr. Yasuji Shibahata
Hitachi Astemo, Ltd., Japan

brake.tech

Karl Friedrich Wörsdörfer
Continental Teves AG & Co. oHG

Head of brake.tech section

Prof. Dr. Eberhard Drechsel
formerly Hochschule München
University of Applied Sciences

Georg Frentz
Mercedes-Benz AG

Alexander Gaedke
Robert Bosch GmbH

Dr. Falk Hecker
Knorr-Bremse SfN GmbH

Dr. Sebastian Kruse
AUDI AG

Tobias Linke
MAN Truck & Bus SE

Prof. Dr. Giampiero Mastinu
Politecnico di Milano, Italy

Prof. Dr. Ralph Mayer
TU Chemnitz

Alexander Prahst
Dr. Ing. h.c. F. Porsche AG

Dr. Ralf Stroph
BMW Group

Prof. Dr. Rüdiger Tiemann
htw saar

tire.wheel.tech

Ralf Schweizer
AUDI AG

Head of tire.wheel.tech section

Stephane Bertoldi
Michelin Reifenwerke AG & Co. KGaA

Stefan Dittmar
TÜV SÜD Product Service GmbH

Ralf Duning
Maxion Wheels EAAP Holding GmbH

Prof. Dr. Frank Gauterin
Karlsruhe Institute of Technology
(KIT)

Dr. Patrick Gruber
University of Surrey, UK

Klaus Krause
Hankook Tire Co. Ltd.

Prof. Dr. Günter Leister
tire.wheel.mobility solutions

Michael Staude
TÜV SÜD Product Service GmbH

Edwin van der Stad
Nexen Tire Europe s.r.o

Prof. Dr. Andreas Wagner
University of Stuttgart

Prof. Dr. Burkhard Wies
Continental Reifen Deutschland
GmbH

Prof. Dr. Makoto Yamakado
Kanagawa Institute of Technology,
Japan

Keynote lectures

In their keynote lectures, renowned speakers from the industry will provide forward-looking insights that go beyond the technical contents and illuminate the current issues from many different perspectives. In this way, the lectures, with their international focus, will be particularly important as a trend barometer for the conference.

TUESDAY, 29-06-2021 // MORNING // VIRTUAL PLENARY

KEYNOTE

09:30

Peter Langen
Senior Vice President
Driving Dynamics, BMW AG

A digital link to sheer driving pleasure – BMW iX

KEYNOTE

10:00

Dr. Moo Sang Kim
Senior Vice President,
Head of Chassis Tech. Unit,
Hyundai Motor Company,
Republic of Korea

Challenges for a smart mobility service provider

KEYNOTE

11:15

Dr. Ingo Albers
VP Chassis,
Dr. Ing. h.c. F.
Porsche AG

Porsche Taycan – curve sketching

KEYNOTE

11:45

(From l. to r.)
Jennifer Endres
Vice President Engineering
System and Advance,
Robert Bosch
Automotive Steering GmbH
Dr. Gero Nenninger
Director Systems Engineering
Vehicle, Robert Bosch GmbH

**Beyond borders –
connected and pre-integrated solutions for a new mobility era**

WEDNESDAY, 30-06-2021 // AFTERNOON // VIRTUAL PLENARY

KEYNOTE

15:30

Markus Hamm
Team Leader BMW
Motorrad Development
Digital Bike, Safety,
Comfort, Offboard
Functions, BMW AG

BMW Motorrad driving assistance systems

KEYNOTE

16:00

Steffen Bamberger
Head of R&D,
Audi Sport GmbH

Challenges in powertrain development and vehicle dynamics for the future portfolio of Audi Sport GmbH

chassis.tech plus

09:15 **Welcome and opening**
Dr. Alexander Heintzel, Editor-in-Chief ATZ | MTZ Group, Springer Nature;
Prof. Dr. Peter E. Pfeffer, Automotive Engineering,
Hochschule München University of Applied Sciences

09:30 – 10:30 – Virtual plenary

KEYNOTE LECTURES I

Moderation: Prof. Dr. Peter E. Pfeffer, Automotive Engineering,
Hochschule München University of Applied Sciences

KEYNOTE
09:30 **A digital link to sheer driving pleasure – BMW iX**
Peter Langen, Senior Vice President Driving Dynamics, BMW AG

KEYNOTE
10:00 **Challenges for a smart mobility service provider**
Dr. Moo Sang Kim, Senior Vice President, Head of Chassis Tech. Unit,
Hyundai Motor Company, Republic of Korea

10:30 Coffee break – Use the time for the virtual exhibition and networking

11:15 – 12:15 – Virtual plenary

KEYNOTE LECTURES II

Moderation: Prof. Dr. Peter E. Pfeffer, Automotive Engineering,
Hochschule München University of Applied Sciences

KEYNOTE
11:15 **Porsche Taycan – curve sketching**
Dr. Ingo Albers, VP Chassis, Dr. Ing. h.c. F. Porsche AG

KEYNOTE
11:45 **Beyond borders – connected and pre-integrated solutions for a new mobility era**
Jennifer Endres, Vice President Engineering System and Advance,
Robert Bosch Automotive Steering GmbH;
Dr. Gero Nenninger, Director Systems Engineering Vehicle, Robert Bosch GmbH

12:15 – 12:45 – Virtual plenary

SHORT INTERVIEWS WITH EXPERTS OF THE INDUSTRY

Moderation: Dr. Alexander Heintzel, Editor-in-Chief ATZ | MTZ Group, Springer Nature

12:45 Lunch break – Use the time for the virtual exhibition and networking

12:55 – 13:15 **MEET THE SPEAKERS**

Meet with the speakers of the sessions "Keynote lectures I & II"
for in-depth Q&A via video chat
(20 min. / max. 50 ppl.)

PARALLEL STRAND I

14:15 – 15:45, Parallel strand I – Virtual room

DRIVING SIMULATORS

Moderation: Timo Schöning, Head of Section Driving Performance,
Hyundai Motor Europe Technical Center GmbH

14:15 **Controllability assessment after chassis component damage on the dynamic driving simulator**
Dr. Thomas Kersten, Manager Rear Axle Development,
Volkswagen AG [in cooperation with Kempten University of Applied Sciences, MdynamiX AG and TRE GmbH]

14:45 **Enhance ride comfort evaluation on the driving simulator with real-time multi-body models**
Guido Tosolin, Senior Product Manager Chassis Development,
Applus IDIADA Group, Spain [in cooperation with Toyota Motor Europe, Belgium]

15:15 **Optimizing the vehicle development process by combining driving simulators and virtual test driving**
Alexander Frings, Manager Engineering Services,
IPG Automotive GmbH [in cooperation with VI-grade UK Ltd, United Kingdom]

PARALLEL STRAND II

14:15 – 15:45, Parallel strand II – Virtual room

INNOVATIVE CHASSIS SYSTEMS

Moderation: Stefan Resch,
Corporate Strategy & Innovation, TÜV SÜD AG

14:15 **An innovative rear axle concept for optimized longitudinal comfort**
Stefan Büchner, Development Engineer, BMW Group

14:45 **Development process of the Multi-Link Torsion Axle (MLTA) – a space-optimizing suspension for BEVs**
Tobias Nießing, Research Assistent, Jens Olschewski, Ph.D. Student, Institute of Automotive Lightweight Design, University of Siegen

15:15 **How heavy-duty trailer hybridization improves vehicle performance and stability**
Dr. Johannes Heseding, Function Development Leader,
ZF Group Commercial Vehicle Control Systems

15:45 Coffee break – Use the time for the virtual exhibition and networking

15:55 – 16:15 **MEET THE SPEAKERS**

Meet with the speakers of the two sessions listed above for in-depth Q&A via video chat (20 min. / max. 50 ppl.)

16:30 – 18:00, Parallel strand I – Virtual room

AUTOMATED DRIVING AND RACING

Moderation: Prof. Dr. Markus Lienkamp, Director, Institute of Automotive Technology, Technical University of Munich

16:30 **Development of an objective evaluation method for manual and automated parking maneuvers**
Thomas Boscher, Staff Member Research Automated Driving and Vehicle Dynamics, Faculty of Mechanical Engineering, Kempten University of Applied Sciences [in cooperation with MdynamiX AG and Hochschule München University of Applied Sciences]

17:00 **The HEAT is on! – Functional safety of chassis functions for highly automated public transportation**
Dr. Marcus Perner, Technical Consultant for Functional Safety of Chassis Functions, IAV GmbH

17:30 **Indy Autonomous Challenge – autonomous race cars at the handling limits**
Alexander Wischnewski, Research Associate, Chair of Automatic Control, Technical University of Munich

16:30 – 18:00, Parallel strand II – Virtual room

NEW METHODS AND SYSTEMS

Moderation: Dr. Veit Held, Senior Manager Advanced Engineering Chassis and Chassis Control Systems, Opel Automobile GmbH

16:30 **Opportunities and challenges of integrated wheel corner solutions**
Stefan Eitzinger, Chief Engineer Chassis, AVL List GmbH, Austria [in cooperation with AUDI AG, Ilmenau University of Technology, both Germany and University of Surrey, United Kingdom]

17:00 **Smart vehicle dynamics controller for endurance testing and an outlook to AI**
Fabian Pfitz, Chassis Engineer,
Porsche Engineering Services GmbH

17:30 **New approaches to vehicle health management via a digital twin**
Joe Klesing, Executive Director Product Lines Steer-by-Wire & Software, Peter Schmitt, Manager R&D,
Nexteer Automotive Corp., USA

18:10 – 18:30 **MEET THE SPEAKERS**

Meet with the speakers of the two sessions listed above for in-depth Q&A via video chat (20 min. / max. 50 ppl.)

18:30 End of the first conference day

chassis.tech

08:30 – 10:00, chassis.tech section – Virtual room

SUSPENSION AND RIDE COMFORT

Moderation: Martin Schwarz,
Process Responsible Driving Dynamics, BMW Group

08:30 **Experimental nonlinear system identification of a shock absorber focusing on secondary ride comfort**
Ronnie Dessort, PhD Student Modeling, Simulation Mechanical Chassis, Objectification, BMW Group [in cooperation with TU Dresden]

09:00 **Nonlinear model predictive control for active and semi-active suspension control**
Miguel Dhaens, Engineering Manager, Tenneco Automotive Europe bvba, Belgium [in cooperation with University of Surrey, United Kingdom]

09:30 **Study for ride comfort application by functional models: new excitation method and model extension**
Lorenzo Falchi, Engineer, Hyundai Motor Europe Technical Center GmbH

steering.tech

08:30 – 10:00, steering.tech section – Virtual room

ALL-WHEEL STEERING

Moderation: Dr. Christoph Bittner,
Director Development Chassis Systems, Dr. Ing. h.c. F. Porsche AG

08:30 **The rear-axle steering with large angles of the new S-Class from Mercedes-Benz**
Dr. Magnus Rau, Manager Rear-Axle Steering, Mercedes-Benz AG

09:00 **Development of an active rear-steering system with large-angles to achieve both natural feel and a small turning radius at low speed**
Yohei Nagai, Engineer, 2nd Chassis & Vehicle Safety System Engineering Dept., AISIN Seiki, Co., Ltd., Japan

09:30 **City buses with all-wheel steering – best practice example of MOVITAS**
Wolfgang Stadie, Head of Sales & Marketing, ME Mobil Elektronik GmbH;
Erik Henneken, Manager E-Mobility, Tribus Group, Netherlands

brake.tech

08:30 – 10:00, brake.tech section – Virtual room

FUTURE BRAKE SYSTEMS AND TESTING TECHNOLOGY

Moderation: Alexander Gaedke,
Vice President, Program Management IPB, Robert Bosch GmbH

08:30 **Future brake systems: requirements and solutions**
Matthias Greiner, Senior Vice President Platform Development, Brake Systems, Robert Bosch GmbH

09:00 **Investigation of the fluctuation range of the cold compressibility of brake linings**
Falko Wagner, Academic & Research Staff Member, Department of Vehicle Research, TU Chemnitz

09:30 **Impact of regenerative braking optimization on drive train design requirements**
Ektor Karyotakis, Project Assistant, Department of Mechanics and Maritime Sciences, Chalmers University of Technology, Sweden

tire.wheel.tech

08:30 – 10:00, tire.wheel.tech section – Virtual room

INNOVATIONS IN TIRES AND WHEELS

Moderation: Stefan Dittmar,
Team Leader Wheels, TÜV SÜD Product Service GmbH

08:30 **The "Mobility Ring" – a new concept for recovery of mobility after a tire breakdown**
Prof. Dr. Günter Leister, CEO, tire.wheel.mobility solutions [in cooperation with GV Engineering GmbH and FAIST Light Metals Ltd., Italy]

09:00 **Development of a forged-equivalent aluminum wheel in the Mubea Cast Forging (MCF) process**
Josef Gartner, Head of Process Development, Mubea Performance Wheels GmbH, Austria;
Markus Huber, SE-Team Manager – Wheels, Tyres, Tyre Pressure Monitoring Systems, AUDI AG

09:30 **The wheel attachment in transition towards e-mobility – new challenges driving new test procedures**
Dr. Daniel Koch, Director Research & Development, ABC Umformtechnik GmbH & Co. KG

10:00 Coffee break – Use the time for the virtual exhibition and networking

10:10 – 10:30 **MEET THE SPEAKERS**

Meet with the speakers of the four sessions listed above for in-depth Q&A via video chat (20 min. / max. 50 ppl.)

chassis.tech

10:30 – 12:00, chassis.tech section – Virtual room

ACTIVE SUSPENSION AND LIGHTWEIGHT DESIGN

Moderation: Klaus Baltruschat, Senior Account Manager,
Head of Sales: Tires & Wheels, TÜV SÜD Product Service GmbH

10:30 **Reusable architectures for safety-critical smart-actuator systems**
Dr. Connel Williams, Senior Engineering Manager, ZF Group, United Kingdom

11:00 **The complexity of HV-component development with a focus on suspension systems**
David Benz, Senior Developer Test Systems, Silver Atena GmbH

11:30 **An innovative and safe active lightweight design chassis concept**
Oliver Deißer, Scientific Engineer,
Vehicle Architectures and Lightweight Design Concepts, DLR – Institute of Vehicle Concepts

steering.tech

10:30 – 12:00, steering.tech section – Virtual room

DEVELOPMENT METHODS

Moderation: Dirk Ferge, Senior Manager
Business Development & Innovation, JTEKT Europe

10:30 **A virtual development approach using an advanced HiL steering bench**
Dr. Fabio Gerbino, Driving Simulators Responsible, Maserati S.p.A., Italy [in cooperation with Meccanica 42, Italy]

11:00 **Precise calibration of steering feel based on model identification**
Fan Xu, Steering Design Senior Engineer, GAC R&D Center, China

11:30 **A steering system designed by an integrated approach, manufactured for small series**
Claudio Ricci, Head of Advanced Vehicle Dynamics,
Silvio La Tassa, Head of Engineering,
Danisi Engineering S.r.l., Italy

brake.tech

10:30 – 12:00, brake.tech section – Virtual room

BRAKE-DUST EMISSIONS AND LEGISLATION

Moderation: Dr. Ralf Stroph,
Team Leader Vehicle Dynamics Research, BMW Group

10:30 **Preview of future developments in non-exhaust emissions**
Christof Danner, Project Manager Chassis, AVL List GmbH, Austria

11:00 **Friction, wear and emissions in brakes**
Prof. Dr. Georg Ostermeyer, Head, Institute of Dynamics and Vibration, Technical University of Braunschweig

11:30 **Comparison of the particle emission behavior of automotive drum brakes and disc brakes**
Christopher Hamatschek, Research Assistant, Department of Automotive Engineering, Ilmenau University of Technology [in cooperation with AUDI AG]

tire.wheel.tech

10:30 – 12:00, tire.wheel.tech section – Virtual room

VEHICLE DYNAMICS AND NVH

Moderation: Edwin van der Stad,
Vice President Europe, Nexen Tire Europe s.r.o.

10:30 **Influence of wheel bending stiffness on lateral tire characteristicsn**
Michael Linden, Research Assistant, Institute for Automotive Engineering (ika), RWTH Aachen University

11:00 **Tire model to feature multi-body simulation-based NVH assessment of a car including air cavity**
Dr. Peter Kindt, Senior R&D Engineer – NVH/Acoustics, Goodyear S.A., Luxembourg;
Michal Milata, Development Engineer Simulation Acoustics Complete Vehicle / Body Structure, AUDI AG
[in cooperation with Fraunhofer-ITWM]

11:30 **Early assessment of tire-related ride and NVH comfort based on component and system-level measurements**
Ventseslav Yordanov, Scientific Researcher Driving Dynamics & Acoustics, Institute for Automotive Engineering (ika), RWTH Aachen University [in cooperation with Ford-Werke GmbH]

12:00 Lunch break – Use the time for the virtual exhibition and networking

12:10 – 12:30 **MEET THE SPEAKERS**

Meet with the speakers of the four sessions listed above for in-depth Q&A via video chat (20 min. / max. 50 ppl.)

chassis.tech

13:30 – 15:00, chassis.tech section – Virtual room

NVH

Moderation: Prof. Dr. Pim van der Jagt, Technical Director, AB Dynamics Europe GmbH

13:30 Holistic approach to axle NVH assessment and optimization
Dr. Hendrik Sell, Head of Methods & Tools, Vibracoustic SE & Co. KG

14:00 Potential of road surface replicas for use on laboratory test rigs
Gunnar Böttcher, Research Assistant Research Area Vehicle Dynamics & Acoustics, Institute for Automotive Engineering (ika), RWTH Aachen University [in cooperation with Ford-Werke GmbH and fka GmbH]

14:30 Acoustic challenges in the development of a mechatronic active roll control system
Harald Schäfer, Acoustics Expert, Schaeffler Technologies AG & Co. KG

steering.tech

13:30 – 15:00, steering.tech section – Virtual room

STEER-BY-WIRE

Moderation: Kristof Polmans, Senior Vice President Research and Advanced Engineering, thyssenkrupp Presta AG, Liechtenstein

13:30 Driving the future – benchmarking and verification of drive-by-wire functions
Christian Wagner, Development Engineer, Steering & Functional Safety Chassis, IAV GmbH

14:00 Steering safety and availability standards for steer-by-wire systems
Dr. Michael Hales, Engineering and Product Line Director Steer-by-Wire, Nexteer Automotive Corp., USA

14:30 Evaluation method of subjective rating for SbW controllability with physiological signal analysis
Jens Müller, Senior Manager Steering, Mando Corporation Europe GmbH [in cooperation with Mando Corporation, Republic of Korea]

brake.tech

13:30 – 15:00, brake.tech section – Virtual room

DRIVETRAIN ELECTRIFICATION, PARKING BRAKES AND BIG DATA

Moderation: Dr. Falk Hecker, VP Technology – Driver Assistance and Automated Driving, Knorr-Bremse Systeme für Nutzfahrzeuge GmbH

13:30 Functional enhancement of an electric parking brake by "sensorless" motor angle measurement
Alexander Hoßfeld, PhD Student, ZF Group Commercial Vehicle Control Systems [in cooperation with TU Darmstadt and DMecS Development of Mechatronic Systems GmbH & Co. KG]

14:00 Evolution of commercial vehicle brake systems through drive train electrification
Matthias Seidenschwang, Chief Product Owner E-Mobility eCUBATOR, Knorr-Bremse Systeme für Nutzfahrzeuge GmbH

14:30 Connected and virtualized development of Bosch Chassis Systems Control
Andreas Hoffmann, Project Manager Connected Braking Systems, Dimitrios Stavrianos, Project Manager Connected Digital Twin, Robert Bosch GmbH

tire.wheel.tech

13:30 – 15:00, tire.wheel.tech section – Virtual room

ENVIRONMENT AND NEW LEGISLATION

Moderation: Ralf Schweizer, Head of Development Wheels, Tires, Tire Pressure Monitoring Systems, AUDI AG

13:30 Novel approaches for measuring and predicting particulate emissions from automotive brakes and tires
Dr. David Hesse, Research Assistent, Department of Automotive Engineering, Ilmenau University of Technology

14:00 Characterization of tire road wear particles in the field and lab
Dr. Frank Schmerwitz, Senior Engineer, Global Tire Testing, Continental Reifen Deutschland GmbH

14:30 Technical challenges for implementation of new legislation on wet grip of worn tires
Lars Netsch, Manager Standards and Regulations Tires & Wheels, TÜV SÜD Product Service GmbH

15:00 Coffee break – Use the time for the virtual exhibition and networking

15:10 – 15:30 MEET THE SPEAKERS

Meet with the speakers of the four sessions listed above for in-depth Q&A via video chat (20 min. / max. 50 ppl.)

chassis.tech plus

15:30 – 16:30, Virtual plenary

KEYNOTE LECTURES III

Moderation: Prof. Dr. Peter E. Pfeffer, Automotive Engineering, Hochschule München University of Applied Sciences

15:30 KEYNOTE
BMW Motorrad driving assistance systems
Markus Hamm, Team Leader BMW Motorrad Development Digital Bike, Safety, Comfort, Offboard Functions, BMW AG

16:00 KEYNOTE
Challenges in powertrain development and vehicle dynamics for the future portfolio of Audi Sport GmbH
Steffen Bamberger, Head of R&D, Audi Sport GmbH

16:30 Closing remarks
Prof. Dr. Peter E. Pfeffer, Automotive Engineering, Hochschule München University of Applied Sciences;
Dr. Alexander Heintzel, Editor-in-Chief ATZ I MTZ Group, Springer Nature

The current program is also available online: www.atzlive.de/en/chassis

TÜV SÜD

Generating competitive edge through smart use of knowledge.

TÜV SÜD is a premium quality, safety, and sustainability solutions provider that specializes in testing, inspection, auditing, certification, training, and knowledge services. Since 1866, the company has remained committed to its founding principle of protecting people, property and the environment from technology-related risks.

Headquartered in Munich, Germany, TÜV SÜD is represented in more than 1,000 locations worldwide. TÜV SÜD operates globally with a team of more than 25,000 multi-disciplinary experts recognized as specialists in their respective fields. By combining impartial expertise with invaluable insights, the company adds tangible value to businesses, consumers and the environment.

The aim of TÜV SÜD is to support customers with a comprehensive suite of services worldwide to increase efficiency, reduce costs and manage risk. As an innovative service provider to the automotive industry, TÜV SÜD operates a global network of testing laboratories and facilities for exhaust gas testing, tire analysis and tire testing, electrical and functional safety tests, alternative powertrain systems, tanks and tank systems.

Your presentation platform

Take this opportunity to present your latest products and services to the specialist audience: as an exhibitor in our virtual exhibition and/or as a sponsor with an attractive advertising presentation. Make use of this meeting place to generate valuable business contacts!

For information on the various presentation options, please contact:

Elke van Lon
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Registration fee

Participation via live stream

€ 995.– plus VAT

The "participation via live stream" includes the keynote lectures and all lectures of the two parallel strands on the 1st day as well as the four parallel sections on the 2nd day as live streams. Also included are the event documents and the use of the event app.

The registration fee also includes admission to the accompanying trade exhibition virtually via the event app.

University members of the IAVSD receive a 50 % discount on the registration fee.

Languages used in the presentations

German and English with simultaneous interpreting (German – English)

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The organizer

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