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CONFERENCES FOR VEHICLE AND ENGINE SPECIALISTS

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chassis.tech plus 2023

4 congresses in one event

20 – 21 June 2023
Munich, Germany
or virtually via live stream

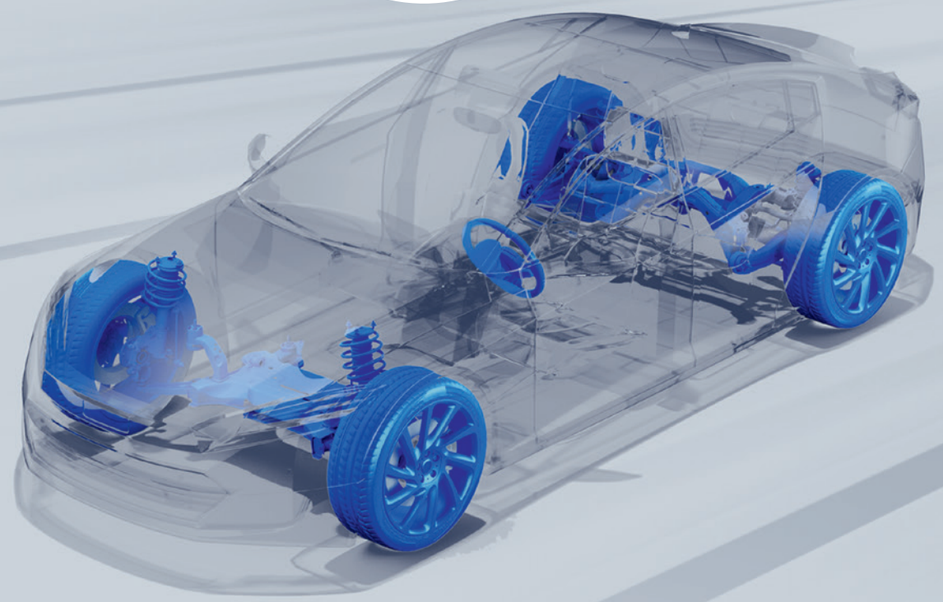
Call for Papers
Apply online now

Submission of proposals
no later than
4 November 2022

chassis.tech plus

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

Impressions



SCIENTIFIC DIRECTOR

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

ONE FOR ALL
4 congresses in one event

chassis.tech plus
Tailor-made chassis systems –
Designing the steps from manual to autonomous driving for all chassis components

Integrated chassis systems –
Rethinking the optimization of architectures and modules for vehicles as part of a complete system

chassis.tech
Innovative chassis systems –
Using software tools, driving simulators, virtual tests, and road tests for optimum vehicle dynamics

steering.tech
Smart steering systems –
Meeting the challenges of steering feel, take-over, and steer-by-wire

brake.tech
Modern brake systems –
Mastering brake technology, brake blending, and recuperation as well as environmental aspects in the development process

tire.wheel.tech
Reliable tire-wheel components –
Sustainably developing processes and methods for low-emission, lightweight, and energy-efficient products

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

Welcome

The transformation of the mobility sector in the two directions of sustainability and automation is in full swing. This has an impact on the chassis in particular, as it is an important mediator between the vehicle occupants and the road. Meeting the diverging wishes of the customers for automated driving levels on the one hand and driving enjoyment on the other requires sophisticated but nevertheless time-saving validation methods. Analyses using driving simulators, targeted road tests, and evaluation by artificial intelligence are one solution here. These need to be supplemented by engineering measures that optimize energy efficiency and NVH and reduce brake dust and tire wear. All four levels – the wheel suspension, the steering, the brakes, and the tires/wheels – need to work together holistically. This will put chassis development on the best path into the future.

The 14th International Munich Chassis Symposium chassis.tech plus will bring together numerous experts in wheel suspension systems, steering, brakes, and tires/wheels as well as for automated driving for an exchange of experience and constructive discussions. This is your opportunity to show us what your innovative research and development activities currently look like. On behalf of the Scientific Advisory Board, we cordially invite you to submit a paper and to contribute to the success of this globally recognized event. After the symposium, your paper will be published as part of the conference proceedings at Springer Vieweg and on the online platforms Springer Link and Springer Professional.

We look forward to talking with you.

Further details on submitting a paper can be found in this Call for Papers.

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

Klaus Baltruschat
TÜV SÜD Product Service GmbH

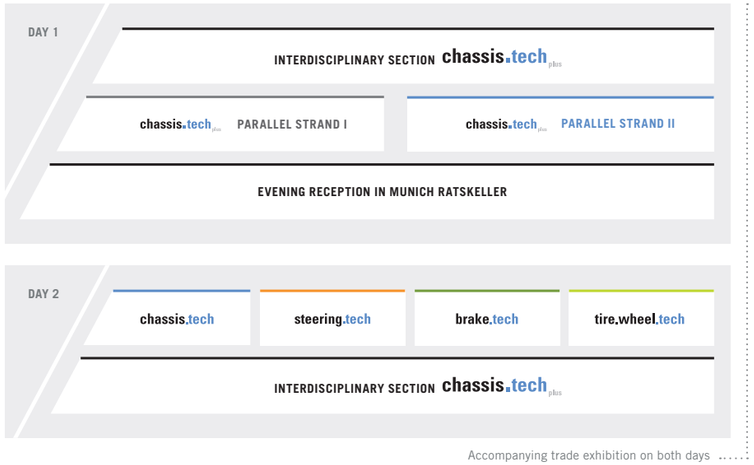
Dr. Alexander Heintzel
ATZ | MTZ Group

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

Stay at the cutting edge!

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



Accompanying trade exhibition on both days

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 as well as for automated driving.

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 vehicle dynamics and automated driving, 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 again for the interdisciplinary section chassis.tech plus.

Participants can move freely at any time between the four parallel sections on the 2nd day.

For the whole duration of the symposium, the accompanying trade exhibition will allow you to gather information on innovative products and services offered in the field of chassis development.

Your presentation platform

Take this opportunity to present your latest products and services to the specialist audience: as an exhibitor in our exclusive exhibition and/or as a sponsor with an attractive advertising presentation.

Registration fee

On site

€ 1,695.– plus VAT

This includes the conference documentation, the accompanying trade exhibition, the use of the digital event platform as well as the catering during breaks and the evening event on 20-06-2023.

Virtually via live stream

€ 995.– plus VAT

This includes the conference documentation as well as the use of the digital event platform with virtual exhibition.

Participants can change between the parallel sections at any time for both participation variants.

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

Date

20 – 21 June 2023

Venue

Hotel Bayerischer Hof or virtually via live stream
Promenadeplatz 2 – 6, 80333 Munich, Germany

Languages used in the presentations

On site: German and English with simultaneous interpreting (German – English / English – German)

Virtually via live stream: English

For information on the various presentation options, please contact:

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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 experts in their respective fields, provide support during the planning phase of the conference and help to identify suitable topics.

chassis.tech

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BMW Group
Head of chassis.tech section

Egbert Bakker
Volvo Car Group, Sweden

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brake.tech

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Kanagawa Institute of Technology, Japan

Main topics for cars, commercial vehicles, racing cars and motor cycles

INTERDISCIPLINARY SECTION CHASSIS.TECH PLUS

New Chassis Systems
- Chassis systems of new vehicle models
- New vehicle concepts and their chassis systems
- Demands on the chassis of tomorrow
- Systems for electric, hybrid, and conventional vehicles
- Platform strategies and modularization
- Customer orientation, driver focus

Handling and Vehicle Dynamics
- Subjective and objective evaluation
- Customer requirements for handling and vehicle dynamics

NVH – Acoustics and Vibration in the Chassis
- Generation mechanisms
- Detection, measurement, and evaluation
- Countermeasures

Smart Chassis, ADAS, and Autonomous Driving
- More safety, comfort, and functions through connected systems
- Interaction between car-to-x and the chassis
- Innovative development methods – design, simulation, validation
- Trajectory planning and redundancy

Lightweight Design
- Design solutions
- CFRP and innovative materials

Market Requirements
- Cost reduction and performance
- Fuel consumption, efficiency, CO_2
- Safe driving feeling, comfort/NVH

BRAKE.TECH SECTION

Innovative Brake Systems
- New brake systems and components
- Brake-by-wire
- Active principles, assemblies, materials, sensors, and actuators
- Operational and functional behavior in practice
- Brake feel
- New system architectures and functions
- Software and hardware components

Brakes and the Environment
- CO_2 reduction: regenerative braking, lightweight design
- Brake systems for hybrid and electric vehicles, alternative drive systems
- Friction, wear, and brake dust
- Test legislation, legal requirements

CHASSIS.TECH SECTION

Chassis Systems
- Interaction between the chassis and vehicle dynamics
- Spring system and damping, air suspension
- Engine mounts
- Kinematics and elastokinematics, suspension
- Torque vectoring

Electronic Chassis Systems
- Innovative systems
- Data fusion and system connectivity
- Semi-active and active chassis systems
- Roll stabilization
- Influence on vehicle characteristics

Virtual Chassis Development and Homologation
- Development of safety-critical systems
- Homologation
- Simulation, validation, verification
- Driving simulators
- User experience
- Agile development, artificial intelligence, testing with machine learning, big data

STEERING.TECH SECTION

Innovative Steering Systems and Steer-by-Wire
- New systems and functions
- Steering wheel, steering column, steering gear
- Rear axle steering
- Impact of the 48 V vehicle electrical system
- Steer-by-wire systems and their actuator systems

Development Process, System Properties and Architecture
- Steering feel and vehicle handling
- Human/machine interface (HMI)
- System architecture and control strategies
- Validation, functional safety, MiL/SiL/HiL tests

TIRE.WHEEL.TECH SECTION

Innovations in Tires and Wheels
- New tire and wheel concepts, materials, and technologies
- Simulation, measuring, and testing methods
- Traction and friction mechanisms
- Tire sensor systems and determining the friction coefficient

Tires and the Environment
- Legislation and safety
- Environmental protection
- Fuel consumption, CO_2 reduction
- Tire wear and particulate matter

Further information and online submission of your proposal:

www.atzlive.de/en/chassis

chassis.tech plus 2023
20 – 21 June 2023, Munich, Germany
or virtually via live stream

Submission of proposals no later than

4 November 2022

Are you interested in presenting a paper on one of the topics listed at chassis.tech plus?

If so, please submit a short version of your paper via the online portal to the event page indicated. You can access this portal via the link shown in the red box above or by scanning the QR code.

Your submission proposal in English should contain:

- The title of the paper
- The name of the speaker with job title, company address, telephone number and e-mail address
- The name of any co-authors with company address
- The main points and a brief summary of the paper's contents (abstract)
- Brief summary of the innovative value of the work (please submit documents in PDF)
- Classification under one of the main subject areas

On the basis of the short version of the paper, the Scientific Advisory Boards for the conference will decide on its acceptance.

Information on the Symposium

The time allowed for presentation is 20 minutes followed by a subsequent discussion. The registration fee will be waived for one speaker per paper presented. The presentation language is either German or English. The language of the manuscripts and slides is English. After the event, your paper will be published as part of the conference proceedings at Springer Vieweg and on the online platforms Springer Link and Springer Professional.

Schedule

Deadline for submission proposals: **4 November 2022**

Notification of the authors: **February 2023**

Submission of final manuscripts: **8 May 2023**

The final conference program will be published in March 2023.

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