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Automotive Acoustics Conference 2021

Designing the acoustics of future vehicles

16 November 2021 | Digital Edition Europe/Asia

17 November 2021 | Digital Edition Americas

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IT'S YOUR CHOICE

Select the edition that best meets your regional time zone

autoneum

Designing the acoustics of future vehicles

- **ELECTRIFICATION AND NVH REQUIREMENTS**
  Structure-borne noise, sound quality, acoustic performance
- **NEW MOBILITY**
  User experience and NVH requirements
- **REGULATIONS**
  Pass-by noise
- **NVH SIMULATION**

KEYNOTE LECTURES

16 November 2021 I Digital Edition Europe/Asia
Dr. Ing. h.c. F. Porsche AG / Stellantis

17 November 2021 I Digital Edition Americas
Dr. Ing. h.c. F. Porsche AG / Renault Nissan Mitsubishi Alliance

Dr. Davide Caprioli
Head of Acoustic and Thermal Management
Autoneum Management AG

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

Welcome

From electric vehicles to autonomous driving to intelligent vehicle communication systems: in the era of "new mobility", innovative technologies of an increasing variety and complexity are driving the state of the art in the automotive industry at an unprecedented pace. Moreover, they are placing further expectations on the acoustic performance of vehicles.

In order to ensure NVH comfort in the future, developers not only need to address changes due to alternative driving modes and powertrains, but also focus on newly emerging areas of vehicle acoustics including Big Data and Artificial Intelligence. Of course, the improvement and acceleration of measurement analyses as well as calculation methods will continue to be central to expert discussions.

Starting with keynote lectures by leading industry executives, the 6th International Automotive Acoustics Conference will cover current challenges and opportunities in vehicle acoustics and NVH engineering. In addition, this year's digital edition will offer virtual networking areas and exhibition rooms.

We look forward to meeting you online in November!

On behalf of the Scientific Advisory Board

Stay at the cutting edge!

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

Automotive Acoustics Conference

The international Automotive Acoustics Conference is a biennial global forum for the exchange of information and networking among engineers engaged in further improving the NVH characteristics of passenger cars and commercial vehicles. The principal themes of the conference explore the technological innovations as well as the market and regulatory demands that are driving the state of the art in the automotive industry. Furthermore, the conference caters to the needs of researchers and developers alike by addressing growing expectations with regard to vehicle performance and sustainability. It also touches upon the particular challenge that developments in one area of the car often also affect its acoustic characteristics – especially in the perception of the end user.

Automotive Acoustics Conference 2021 as a virtual event

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

The digital event platform offers you

- access to all features from one week before until one week after the conference
- Q&A feature in the live stream
- participation on all common devices (smartphone, tablet and laptop)
- 1:1 video chats with attendees, exhibitors and speakers
- live polls
- your personal program overview
- a virtual exhibition and networking area
- all available conference documents in one place for download
- as well as other useful functions

Scientific Advisory Board

Our Scientific Advisory Board, which is made up of prominent experts in their respective fields, provides support during the planning phase of the conference and helps to identify suitable topics.

With its expertise the board has made a valuable contribution to the choice of themes for the lecture program.

Dr. Davide Caprioli
Autoneum Management AG
Scientific Director of the Conference

Prof. Dr. Paolo Ermanni
ETH Zurich
Patron of the Conference

Thomas Antoine
Renault S.A.

Prof. Dr. Hartmut Bathelt
AZL-Technology Center GmbH

Claudio Bertolini
Autoneum Management AG

Dr. Léon Gavric
Stellantis

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

Dr. Piercarlo Miglietta
Stellantis

Prof. Dr. Hermann Rottengruber
Otto von Guericke University Magdeburg

Dr. Christian Schuster
Ford-Werke GmbH

Dr. Hendrik Sell
Vibracoustic SE & Co. KG

Johan Stenson
Volvo Car Group

Dr. Makram Zebian
Continental Reifen Deutschland GmbH

All times are given in CET – Central European Time
Time Difference to CET: JST +8 hrs. I EST -6 hrs. I PST -9 hrs.

08:00 **Welcome and opening – DIGITAL EDITION EUROPE/ASIA**
Dr. Alexander Heintzel, Editor-in-Chief ATZ I MTZ Group, Springer Nature, Germany;
Dr. Davide Caprioli, Head of Acoustic and Thermal Management, Autoneum Management AG, Switzerland

08:10 – 08:40

KEYNOTE LECTURE

Moderation: Dr. Davide Caprioli, Head of Acoustic and Thermal Management, Autoneum Management AG, Switzerland

KEYNOTE

08:10 **The Porsche Taycan: acoustic properties of an electric vehicle**
Christian Lange, Team Leader BEV Taycan, Dr. Ing. h.c. F. Porsche AG, Germany

08:40 – 09:40

SESSION I

Moderation: Dr. Davide Caprioli, Head of Acoustic and Thermal Management, Autoneum Management AG, Switzerland

08:40 **Auditory displays that improve the experience of automated cars**
Fredrik Hagman, Senior Sound Designer, Volvo Car Group, Sweden

09:00 **AI-based automated acoustic vehicle diagnostics**
Dr. Alexander Roy, Senior Consultant, IAV GmbH, Germany [in cooperation with TU Braunschweig, Germany]

09:20 **Dataneering NVH: the use of data science for Design to NVH**
Thomas Antoine, NVH Expert Leader, Renault Nissan Mitsubishi Alliance, France

09:40 Refreshment break –
Use the time for the virtual exhibition and networking

10:15 – 10:45

KEYNOTE LECTURE

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

KEYNOTE

10:15 **Pass-by noise regulation in the EU – current status and issues**
Dr. Léon Gavric, Senior Expert NVH, Stellantis, France

10:45 – 11:45

SESSION II

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

10:45 **Prediction of tire-induced pass-by noise and the effect of passive treatments**
Dr. Ji Woo Yoo, Senior Research Engineer, Hyundai Motor Company, South Korea;
Federico Di Marco, Engineer – CAE Acoustic, Autoneum Management AG, Switzerland

11:05 **Pass-by noise prediction method to meet new challenging sound limits**
Dr. Gianluca Di Nenno, NVH – Noise Regulations Manager, Stellantis, Italy [in cooperation with Centro Ricerche Fiat S.C.p.A., Italy]

11:25 **NVH optimization of electrified axles – new "front-loading" approaches**
Dr. Hendrik Sell, Director Methods & Tools, Vibracoustic SE & Co. KG, Germany

11:45 **Closing remarks – DIGITAL EDITION EUROPE/ASIA**
Dr. Alexander Heintzel, Editor-in-Chief ATZ I MTZ Group, Springer Nature, Germany;
Dr. Davide Caprioli, Head of Acoustic and Thermal Management, Autoneum Management AG, Switzerland

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18:00 **Welcome and opening – DIGITAL EDITION AMERICAS**
Dr. Alexander Heintzel, Editor-in-Chief ATZ I MTZ Group, Springer Nature, Germany;
Dr. Davide Caprioli, Head of Acoustic and Thermal Management, Autoneum Management AG, Switzerland

18:10 –18:40

KEYNOTE LECTURE

Moderation: Dr. Davide Caprioli, Head of Acoustic and Thermal Management, Autoneum Management AG, Switzerland

KEYNOTE

18:10 **The Porsche Taycan: acoustic properties of an electric vehicle**
Christian Lange, Team Leader BEV Taycan, Dr. Ing. h.c. F. Porsche AG, Germany

18:40 – 19:40

SESSION I

Moderation: Dr. Davide Caprioli, Head of Acoustic and Thermal Management, Autoneum Management AG, Switzerland

18:40 **Development of sound quality metrics for electric vehicles**
Dr. Tommaso Delpero, Project Manager – Research and Technology, Jan Horak, Senior Engineer Vehicle Testing & Acoustic Refinement, Autoneum Management AG, Switzerland [in cooperation with Head Acoustics GmbH, Germany]

19:00 **NVH optimization of electrified axles – new "front-loading" approaches**
Dr. Hendrik Sell, Director Methods & Tools, Vibracoustic SE & Co. KG, Germany

19:20 **An investigation into the propagation of high-frequency propulsion noise in electric vehicles**
Shivam Bahuguna, 1st Analysis Engineer, Volvo Car Corporation, Sweden formerly Chalmers University of Technology, Sweden

19:40 Refreshment break –
Use the time for the virtual exhibition and networking

20:15 – 20:45

KEYNOTE LECTURE

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

KEYNOTE

20:15 **Dataneering NVH: the use of data science for Design to NVH**
Thomas Antoine, NVH Expert Leader, Renault Nissan Mitsubishi Alliance, France

20:45 – 21:45

SESSION II

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

20:45 **Auditory displays that improve the experience of automated cars**
Fredrik Hagman, Senior Sound Designer, Volvo Car Group, Sweden

21:05 **AI-based automated acoustic vehicle diagnostics**
Dr. Alexander Roy, Senior Consultant, IAV GmbH, Germany [in cooperation with TU Braunschweig, Germany]

21:25 **NVH development and target setting of an autonomous vehicle**
Francesca Ronzio, R&T CAE Manager, Autoneum Management AG, Switzerland;
Dan Baker, Manager NVH, Zoox, United States

21:45 **Closing remarks – DIGITAL EDITION AMERICAS**
Dr. Alexander Heintzel, Editor-in-Chief ATZ I MTZ Group, Springer Nature, Germany;
Dr. Davide Caprioli, Head of Acoustic and Thermal Management, Autoneum Management AG, Switzerland

Autoneum

Autoneum is the globally leading automotive supplier in acoustic and thermal management for vehicles. The Company develops and produces multifunctional and lightweight components and systems for the interior floor and engine bay as well as the underbody. The innovative products and technologies contribute significantly to the reduction of interior and exterior noise of cars, thereby enhancing driving comfort.

They also make vehicles considerably lighter, which leads to improved fuel efficiency and less CO_2 emissions. In addition, Autoneum provides specialized benchmark measurement systems for automotive acoustics allowing the NVH performance of component and material properties to be evaluated.

The Company's long-standing expertise and comprehensive technological know-how is recognized by almost all automobile manufacturers worldwide and is also proven by the continuous success of the Automotive Acoustics Conference, which was held for the first time more than 50 years ago. The Swiss-based Company operates 53 production facilities and employs around 12,800 people in 24 countries.

For more information, please go to www.autoneum.com.

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Elke van Lon
Phone +49 611 7878-320
elke.vanlon@springernature.com

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Registration fee

Single day participation via live stream: € 300.– plus VAT

The virtual participation includes all lectures of the booked edition as live stream. Also included are the event documents, the virtual exhibition and the use of the digital event platform.

Date

16 November 2021 I Digital Edition Europe/Asia

17 November 2021 I Digital Edition Americas

Select your time zone

In order to meet your regional time requirements, the virtual conference consists of two editions and takes place on consecutive days. Individual lectures are tailored to regional interests. All times are given in CET – Central European Time. When registering, please select the edition that is best for you.

Time difference to CET on the respective day of the event:
Japan Standard Time (JST): +8 hrs.
Eastern Standard Time (EST): -6 hrs.
Pacific Standard Time (PST): -9 hrs.

Venue

Virtually as a live stream at your workstation

Language used in the presentations

English

Further information and online registration:

www.atzlive.com/acoustics

Participants

The Automotive Acoustics Conference is aimed at professionals working in acoustics and NVH at OEMs, component and systems suppliers, engineering consultancy partners, and experts conducting research at academic institutions. They are active in different, but complementary, parts of the process chain: development, design, material, and component characterization/validation, calculation and simulation, testing, and production.

Further information and online registration:

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Your contact person

Denis Krone
Abraham-Lincoln-Straße 46
65189 Wiesbaden, Germany

Phone +49 611 7878-206
Fax +49 611 7878-452
ATZlive@springernature.com

ATZlive / Spotlight on Powertrain and Vehicle Engineering

Our events are firm fixtures in the diaries of automotive engineers and engine specialists. We offer a range of innovative conferences on the latest topics in the world of automotive engineering and engine technology, from the perspective of research, development and applications.

Our close collaboration with the editorial teams of our specialist magazines ATZ and MTZ keeps us fully up-to-date on the latest topics and trends on the market.

Springer, with its automotive technology brands in the ATZ and MTZ Group, is part of Springer Nature, one of the world's leading publishing groups for scientific, educational and specialist literature.