



## **Shaping the soundscape** of new mobility

- **NVH OF ELECTRIFIED VEHICLES** 
  - Sound quality, active sound design and active control
- SUSTAINABLE AND LIGHTWEIGHT (META)MATERIALS

Novel sustainable materials & metamaterials

**ADVANCED SIMULATION AND HYBRID METHODS** 

Machine learning and data handling

IN FOCUS

Towards lightweight, sustainable NVH



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

#### Welcome

The significance of NVH for the value of an automobile cannot be overestimated. It reflects the quality and refinement of a vehicle in an audible and tangible way, especially for electrified vehicles where the absence of the engine combustion noise is changing the paradigm of the sources contributing to interior and exterior NVH. The international Automotive Acoustics Conference is perhaps the most important specialist forum where new NVH trends are examined and discussed every two years. For the 2023 edition, experts will again meet at the Gottlieb Duttweiler Institute, a renowned Swiss think tank located in Zurich/Rueschlikon. The conference program includes presentations from OEMs, suppliers, engineering service providers and academic research institutes. The event will be complemented by workshops as well as an extensive exhibition by various suppliers presenting innovations in the field of automotive acoustics management. The conference will be run in hybrid mode, participants will be able to attend the conference either on site or remotely through an online platform.

We are looking forward to your active participation and would be delighted to receive your submission of a proposal for a presentation at the 7th International ATZ Conference on Vehicle Acoustics.

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 as perceived by the end user.



#### **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, such as development, design, material and component characterization/validation, calculation and simulation, testing, and production.

Media partners



#### **Scientific Advisory Board**

Our Scientific Advisory Board, which is made up of prominent figures from the relevant field, provides support during the planning phase of the conference and helps to identify suitable topics.

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



**Dr. Davide Caprioli**Autoneum
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Prof. Dr.
Paolo Ermanni
ETH Zurich

Scientific Director of the Conference

Patron of the Conference

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Vibracoustic AG & Co. KG

Johan Stenson

Volvo Car Group

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Continental Reifen Deutschland GmbH

5 / ATZlive / 6



#### Vehicle noise, vibration and harshness (NVH)

Passenger cars and commercial vehicles I Autonomous car NVH requirements I Body, chassis, suspension, powertrain I Exterior / interior noise and vibration I Wind noise / aero-acoustics I Tire noise

#### **NVH of HEVs and BEVs**

xEV NVH challenges | xEV NVH design strategies | Sound design / quality | E-motors / e-equipment source characterization

#### **Engine / Powertrain NVH**

Internal combustion engines | Engine bay / vehicle exterior sound package design | Intake / exhaust noise | Sound design / quality

#### Vehicle exterior noise

Legislation, directives, noise abatement regulations | Measurement methods and testing equipment | Powertrain / vehicle exterior NVH design strategies | Tires / road characterization and simulation

#### Sustainable, lightweight NVH (meta)materials and components

Metamaterials, sound absorbers, sound insulation packages, dampers | Multifunctional materials / components | Design for sustainable and lightweight NVH packages | Active noise and vibration systems | Sound package solutions for lightweight vehicle bodies

#### Measuring, testing, and experimental engineering

NVH measurement methods | Sound source identification / characterization | Sensors and test rigs | Measurement data processing | Aero-acoustics

#### Calculation and simulation

Deterministic and statistical methods | Airborne / structure-borne noise simulation | Hybrid methods – experiment and calculation | Machine learning | Data handling

#### 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. Make use of this industry meeting place to make valuable contacts with customers!

For information on the various presentation options, please contact:

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# Further information and online submission of your proposal:



### www atalive com/acoustics

Automotive Acoustics Conference 2023 11-12 July 2023, Zurich/Rueschlikon I Switzerland or virtually via live stream

Submission of proposals no later than

20 January 2023

#### Are you interested in presenting a paper on one of these subjects?

If so, please submit a short version of your paper via the online portal to the event page indicated.

#### 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 Board for the conference will decide on its acceptance.

#### Information on the conference

The time allowed for presentation is 20–25 minutes with a subsequent discussion. The registration fee will be waived for one speaker per paper presented. The language of the manuscripts and slides is English.

#### **Schedule**

Deadline for proposal submission: 20 January 2023 Notification of the authors: End of February 2023 Submission of final manuscripts: 26 May 2023

The final conference program will be published in April 2023.