

➤ PROGRAMME



International Conference and Exhibition

# AUTOMOTIVE NVH COMFORT LE MANS 2018

Quietness Mobility of the Future

17 - 18 OCTOBER  
2018

PALAIS DES CONGRÈS DU MANS  
FRANCE

## INTRODUCTION



**Charles Zhang**  
Conference Chair  
Renault

The 10<sup>th</sup> edition of Automotive NVH comfort conference will take place on October 17-18, 2018 in Le Mans which is known for its concentration of acoustic laboratories and research institutes.

With 20 years history, the Automotive NVH comfort conference in Le Mans has become one of the most important events for the automotive acoustic community. In 2016, more than 200 engineers and researchers from 10 countries joined our conference. They represent European & worldwide automotive OEMs, suppliers, engineering companies and research institutes.

As previous editions, a large scope of topics will be addressed such as vehicle, power train, system & component case studies, new materials, light weight concepts, progress in numerical and experimental methodologies. In particular, there will be two special sessions:

New pass-by noise regulation session which addresses not only numerical and experimental methods but also technologies to achieve the phase 3 target (68 dBA).  
NVH of new energy vehicles

***"We are counting on all of you, to make a huge success of the 2018 the Automotive NVH Comfort Conference!"***

As the last edition, we'll distribute a young engineer award to motivate research and industrial application works. In 2016, Dr M. T. Hoang from Faurecia was awarded for this paper 'Microstructure morphological optimization of foam-based lightweight insulators'.

## SCIENTIFIC COMMITTEE

### Conference Chair

Charles ZHANG - Renault

### Members

Pascal BOUVET - Vibratec

Nicolas DAUCHEZ - UTC

Arnaud DUVAL - Trèves

Léon GAVRIC - Groupe PSA

Yohann MESMIN - SIEMENS

Saïd NAJI - Valeo

Charles PEZERAT - LAUM

Hervé PICHON - CTTM

Laurent POLAC - Renault

Louis-Ferdinand PARDO - UTAC CERAM

Jean-François RONDEAU - Faurecia

Kresimir TRDAK - Autoneum

### CONTACTS:

MARTIN PIERRELÉE // Société des ingénieurs de l'automobile // martin.pierrelee@sia.fr // +33 1 41 44 93 76

LUCE CAYTAN // CTTM // lucecaytan.nvh2018@gmail.com // 06 14 21 65 50

## PROGRAMME 17 OCTOBER 2018

08:30	> WELCOME COFFEE IN THE EXHIBITION	
09:00	> Welcome Speech	
09:10	> Keynote Faurecia	
10:00	> COFFEE BREAK IN THE EXHIBITION	
	<b>MARKET TRENDS &amp; CONSUMER PERCEPTION</b> Charles Zhang, Congress chairman	
10:30	> Automotive Megatrends and their Impact on NVH C. STEFFENS; M. KAUTH; G.EISELE, <i>FEV</i>	
11:00	> Psychoacoustic tonality analysis R. SOTTEK, <i>Head-Acoustics</i>	
11:30	> Influence of the accuracy of transfer functions description on the perception of auralised sounds E. PARIZET; N. AUJOGUE; S. NAVDEEP, <i>INSA</i>	
12:00	> Quick presentation of each exhibitor	
12:40	> LUNCH IN THE EXHIBITION	
	<b>PASS-BY NOISE#1</b> Leon Gavric, <i>Groupe PSA</i>	<b>NEW NUMERICAL &amp; EXPERIMENTAL TECHNIQUES #1</b> Charles Pezerat, <i>LAUM</i>
14:10	> TPA Light - A useful and reliable tool for troubleshooting in tuning of powertrains B-G. EMRETTSSON; C. MOHR, <i>LuK</i>	Exterior design choice for wind noise with a coupled fluid dynamic/vibro acoustic method G. BAUDET; R. LORENZI; C. DUTRION, <i>Renault</i>
14:40	> Improved coupled radiosity & ray-tracing method for mid and high frequencies pass-by noise prediction N. NOE; M.RETY, <i>CSTB</i>	Wave number analysis of the influence of the damping loss factor depending on the excitation F. CHEVILLOTTE, F-X. BECOT, L. JAOUEN, <i>Matelys</i>
15:10	> A Combination of Inverse BEM and BEM Methods for Pass-By Noise M. ANCIANT; L. MEBAREK; A. GALLET, <i>ESI</i> O. MINCK, <i>MicrodB</i>	A validation study on popular source characterisation techniques using a benchmark structure D. VAN DEN BOSCH, M. WERNSEN; M. VAN DER SEIJS, <i>Vibes</i> D. DE KLERK, <i>Delft University of Technology</i>
15:40	> Measurement of tyres sound emission in semi-anechoic room J-D. PERROT; C. MIGNOT; S. ITO; V. VALYAEV, <i>Michelin</i>	Virtual smoke test B. ROBRECHT, <i>Elsyca</i>
16:10	> BREAK IN THE EXHIBITION	
	<b>PASS-BY NOISE#2</b> Louis-Ferdinand Pardo, <i>UTAC-CERAM</i>	<b>NEW NUMERICAL &amp; EXPERIMENTAL TECHNIQUES#2</b> Arnaud Duval, <i>Trèves, Acoustic Products &amp; Systems</i>
16:40	> Pass-by Noise Simulation and Optimization of Powertrain Acoustic Shielding Package M. THIVANT, <i>Vibratec</i> O. MINCK, <i>MicrodB</i> P. BOUVET, <i>Vibratec</i>	Efficient NVH Evaluation and Decision-making with NVH Virtual Prototypes Including Vibration and Sound D. BOGEMA, <i>Bruel &amp; Kjaer Sound &amp; Vibration Measurement</i>
17:10	> Robust Design of Acoustic Treatments for Engine Encapsulation B. VAN DEN NIEUWENHOF; B. PETIT; E. ROSSEEL, <i>MSC Software</i> P. MORDILLAT; C. DUTRION; S. FORGET, <i>Renault</i>	Transmission Loss measurement of an automotive dashboard by Bayesian Focusing T. LE MAGUERESSE; L. LAMOTTE, <i>MicrodB</i> G. CRIGNON; A. DUVAL, <i>Trèves</i> J. ANTONI, <i>Laboratoire Acoustique Vibration</i>
17:40	> Vehicle NVH Package Optimization for Exterior Noise using indoor Experimental Testing J. Grebert, <i>Renault x Autoneum</i>	Deployment of a robust test-based modal model identification method for trimmed car bodies B. PEETERS; T. GELUK, <i>Siemens</i> M. EL-KALAFY, <i>Vrije Universiteit Brussel, Helwan University</i>
18:10	> Using component test bench measurements to predict pass-by noise contributions for trucks virtually M. CHOUKRI; P. CORBEELS, <i>Siemens</i> R. SINNING; W. KERRES, <i>Daimler</i>	
18:40	> END OF DAY 1	
19:30	> VISITS	
20:30	> DINNER	

# PROGRAMME 18 OCTOBER 2018

08:00 > WELCOME COFFEE IN THE EXHIBITION		
	<b>ACTIVE NOISE CANCELLING &amp; SOUND DESIGN</b> Said Najj, Valeo	<b>SYSTEMS &amp; COMPONENTS #1</b> Trdak Kresimir, Rieter Automotive
08:30 >	<b>Active Noise Control Integration in future infotainment platforms</b> K. SCHMIDT; M. LAMBACHER, <i>Müller-BBM</i> M. MUSTAFA; M. DORBECKER, <i>Intel</i>	<b>Multiple frequency passive hydraulic engine mounts</b> O. SAUVAGE; J. CHILLON; L. ROTA, <i>Groupe PSA</i>
09:00 >	<b>New mobility, a challenge for the Acoustic of the Future</b> J-F. RONDEAU; L. DEJAEGER, <i>Faurecia</i>	<b>Noise of pendulum absorbers in transient</b> Y. LEFEBVRE; T. MA; E. RUMEAU; H. MAHE, <i>Valeo</i>
09:30 >	<b>Hybrid modelling of a car audio-system</b> A. CLOIX; R. LENEVEU, <i>Vibratec</i> L. GAGLARDINI; P-E CHARTRAIN, <i>Groupe PSA</i>	<b>Acoustic design investigation for high-speed BLDC motor</b> G. TONNELIER; A. GILSON, <i>Moving Magnet Technologies</i> C. ESPANET, <i>Sonceboz</i>
10:00 >	<b>Electric Vehicle Sound Design methodology and international market trends.</b> C. DENDIEVEL; P. PEYRET, P. BOUSSARD, <i>Genesis</i>	<b>Design rules to develop grommets with high acoustic performances using finite element analysis</b> Q. PELLOIE; N. MERLETTE, M. GAROT, <i>CEVAA</i> F. CABRERA, <i>Leoni wiring systems</i>
10:30 > BREAK IN THE EXHIBITION		
	<b>NEW ENERGY VEHICLES</b> Said Najj, Valeo	<b>SYSTEMS &amp; COMPONENTS #2</b> Jean-François Rondeau, Faurecia
11:00 >	<b>Electric vehicle tailored sound package : a new challenge</b> G. CRIGNON; A. DUVAL, <i>Trèves</i> C. ZHANG; S. AMAANAN, <i>Renault</i>	<b>Road induced interior noise: high tire contribution or hypersensitivity of the car?</b> L. CAPRON, <i>Müller-BBM</i>
11:30 >	<b>Mounting systems for electric powertrains</b> S. BOUDART; A. KREIS, <i>PSA Groupe</i>	<b>Characterisation of car door noise using binaural sound and beamforming technique</b> M-H. MOULET, <i>CTTM</i> L. MALOTAUX, <i>Excelcar</i> J-H. THOMAS, <i>Laboratoire d'Acoustique de l'Université du Maine</i>
12:00 >	<b>NVH technologies and challenges on electrical powertrain</b> J-L. JOUVRAY; S. WANG; T. KALOS, <i>Renault</i>	<b>NVH assessment using component-based TPA for tire assembly</b> P. CORBEELS; J. ORTEGA ALMIRON; F. BIANCARDI; E. RISALTI, <i>Siemens</i>
12:30 >	<b>Magneto-vibro-acoustic Efficient Design of PWM-fed Induction Machines</b> G. BAUW; B. CASSORET, <i>LSEE</i> F. ZIDAT; T. GUFFROY, <i>Altair engineering</i>	<b>A simplified experimental methodology for exhaust harmonic noise prediction</b> E. PORTIER, <i>CTTM</i> J-L. ADAM, N. HUU-KHOA, <i>Renault</i>
13:00 > LUNCH IN THE EXHIBITION		
	<b>AUTOMOTIVE OEM VISION ON NEW ENERGY VEHICLES</b> Arnaud Duval, Trèves	
14:30 >	<b>Electric vehicles and principal NVH issues</b> L. GAVRIC, <i>Groupe PSA</i>	
15:15 >	<b>Diesel or hybrid engines challenge and opportunity for NVH and weight reduction</b> C. ZHANG, <i>Renault</i> T. ENOMOTO, <i>Nissan</i>	
16:00 >	<b>Young engineer price!</b>	
16:15 > END OF CONFERENCE		

# REGISTRATION FORM

**Automotive NVH Comfort - Active Vibro-acoustics: Noise Cancellation & Sound Design // 17 & 18 October 2018**  
 Réf: 2018-06

## PLEASE COMPLETE AND RETURN THIS FORM:

by mail: **CTTM // Luce CAYTAN** - Technopole Université – 20 rue Thalès de Milet – 72000 Le Mans – France  
 by e-mail: [lucecaytan.nvh2018@gmail.com](mailto:lucecaytan.nvh2018@gmail.com) (Phone number : +33 6 14 21 65 50)  
 by fax: +33 (0)2 43 39 46 47

### Please use **BLOCK CAPITALS**

M<sup>rs</sup>  M<sup>s</sup>  M<sup>r</sup>  D<sup>r</sup>  Dipl-Ing

Family Name:..... First Name:.....

Company:..... Department:.....

Position:.....

Address:.....

Postcode:..... City:..... Country:.....

Tel:..... Email:.....

VAT number:.....

### Registration fees

- 1188€ VAT Incl.** (990 € VAT Excl.) - Non Members
- 1056€ VAT Incl.** (880 € VAT Excl.) - SIA, CTTM, SFA members
- 594€ VAT Incl.** (495 € VAT Excl.) - Co-authors/Small companies/Labs/Researchers/Univ.\* (<100 employees)
- 240€ VAT Incl.** (200€ VAT Excl.) - PhD students\*\*
- 180€ VAT Incl.** (150 € VAT Excl.) - Students\*\*
- 0€** - Main speaker must register online >[www.sia.fr](http://www.sia.fr)

*\*Small firms, Researchers and laboratories must not come under the control of big firms (>100 employees)*

*\*\*Please attached your student card - Gala dinner is not included*

### **Payment** Please precise the invoice address

- By check in Euros** made payable to: "CTTM"
- By bank transfer in Euros** made payable to: "CTTM" (please enclose a copy)

BNP Chasse Royale, F-72000 Le Mans  
 IBAN: FR76 3000 4016 4800 0210 5878 120 – BIC: BNPAFRPPVLE - VAT number: FR 41 387 707 102  
*Please, precise your company name*

**Date and signature:**

**Company stamp:**

#### REGISTRATION CONDITIONS

- Registration fees include participation in the conference, proceedings, book of abstracts, refreshment breaks and lunches and dinner.
- Where it is not possible to send the payment together with the form, each registration should be accompanied by an official purchase order. Failing reception of an official purchase order or payment on the day of the congress, we regret that you will not be allowed entry to the congress.
- When we have received the registration form, we will send you a confirmation message and an invoice. Please indicate the accounts department address where necessary.
- In case of cancellation before 17 September 2018, 30% of the registration fees will be retained. After this date, the entire registration fee will be retained. Registered participants not able to attend may nominate a substitute. Written notice must be provided.

## EXHIBITION & ADVERTISING

An exhibition will take place near the conference rooms during the whole congress. It is a great opportunity to inform attendees about your new projects and enter in contact with this unique gathering of NVH specialists.

**Do not miss this opportunity and join the companies which have already booked a stand, there is only 4 booths available!**



	BRONZE	SILVER	GOLD
<b>Rates (VAT exc.)</b>	<b>2 200 €</b>	<b>3 000 €</b>	<b>- SOLD -</b>
Fitted-out booth	6 sqm	9 sqm	12 sqm
Included invitations	1	2	4
Extra badges		495€	

## ADVERTISING

Gain in visibility during our congress with those advertising opportunities!

Rates (VAT exc.)	BACK COVER	INSIDE	INSIDE FRONT COVER	INSIDE BACK COVER
Book of conference	1 300 €	950 €	550 €*	1 100 €
Insertion of leaflet in bag			1 500 €	
Lanyards			2 000 €	

\* Page A5



CONTACT: LUCE CAYTAN // CTTM // [lucecaytan.nvh2018@gmail.com](mailto:lucecaytan.nvh2018@gmail.com) // 06 14 21 65 50



# LE MANS & THE PLANTAGENET CITY



## USEFUL INFORMATION



### ACCESS

Palais des Congrès et de la Culture du Mans  
Rue d'Arcole - 72 000 Le Mans, France

### Paris > Le Mans

#### 2 hours by car

🅑 Car park available: entrance at boulevard Demorieux or rue Barbier

#### 54 minutes by train, from Montparnasse station

Le Mans station is 7 minutes from the Palais des Congrès by foot.

### Public transportation in Le Mans

Bus line 17 (stop at "Palais des Congrès")

## HOTEL ACCOMMODATION

IBIS STYLES\*\*\*  
+33 (0)2.43.85.49.00

IBIS LE MANS CENTRE\*\*  
+33 (0)2.43.23.18.23

HOTEL CHANTECLER\*\*\*  
+33 (0)2.43.14.40.00

HOTEL LE CHARLESTON\*\*  
+33 (0)2.43.24.87.46