



International Conference and Exhibition

13 & 14 October 2021

# AUTOMOTIVE NVH COMFORT LE MANS 2021

 PALAIS DES CONGRÈS DU MANS, FRANCE



# PROGRAMME

# Day 1 morning

08:30	Welcome Desk
	Plenary Session
09:00	Welcome / Intro Opening words: Frédéric Charon (SIA), Hervé PICHON (CTTM), Léon GAVRIC (CE NVH)
09:10	Keynote CAERI : Peiran LI , Executive Deputy Director- Automotive NVH Tech <i>The trend of electric drive system (EDS) NVH subjective and objective evaluation methods</i>
09:30	Keynote Michelin: Pierre Fraisse, Vice President Technical Operations Passenger Car and Light Truck Tires.
09:50	Keynote Bruitparif : Carlos Ribiero, <i>Traffic noise and annoying by environment acoustic expert</i>
10:10	Pannel session "Automotive in soundscape "
11:10	Coffee & Tee Break and Networking in the exhibition
11:40	Keynote CSTB ( <i>Pionnering HumanLab for Sensory Evaluation</i> ) : <i>Sensory Perception Objectivation of noise and vibration through psychophysiology</i>
12:00	Exhibitors Presentation 2 mm - 2 slides / exhibitors
12:40	Lunch in the Exhibition

# Day 1 afternoon

Parrallel Session			
	BEV/PHEV/MHEV <i>Moderator: Léon GAVRIC</i>	PBN / Regulation <i>Modérateur: Arnaud Duval</i>	Audio / ANC / Sound <i>Modérateur: Jean François RONDEAU</i>
14:10	Study of passive treatments coupled to an electric vehicle battery Grebert - Autoneum	Assesment of run-to-run dispersion phenomena in pass-by-noise measurements according to R51-03 Chapelier - PSA	Active and passive acoustic package synergy Dejaeger - Faurecia
14:35	Why tailored dampers are needed for HEV power-trains? Mahe - Valeo	Determination of racing cars by-pass noise using acoustic beamforming Bollade - Dyva	Design of interior and exterior sound using vehicle audio systems Steffens-FEV
15:00	NVH issues for Electric Rear Axle Drive (e-RAD) Libert - PSA	Major impacts of uncertainties on compliance and development of noise regulations Denoual - Renault	Innovative simulation techniques for audio system performances assessment Costes-FFT
15:25	IBSG, Integrated Belt Starter Generator 48V architecture P0.Comfort optimisation for the vehicule through the lab. Desenclos - Valeo	Pass-by noise regulation: Development of indoor methodologies toward virtual testing Barbeau - Utac	Sound Quality analysis of Active Sound Design implementation Sales - Siemens
15:50	NVH integration impact of thermal systems components in serial vehicle production Bennouna - Valeo	Exterior Noise Regulation for Truck Medium Duty Powertrain: Challenges and Ways of working Acher - Volvo	Automotive active acoustic and audio augmented reality Pardo - Renault
16:15	Coffee & Tee Break and Networking in the exhibition		
Parrallel Session			
	BEV/PHEV/MHEV <i>Moderator: Pascal BOUVET</i>	NVH Design Methods for Vehicles and Components <i>Moderator: Thomas ANTOINE</i>	Audio / ANC / Sound <i>Moderator: Nicolas DAUCHEZ</i>
16:45	Sound quality analysis of Electric Drive Units under different switching control strategies Degrendele - Eomys	Whistling prediction using direct aeroacoustic simulation on exhaust components Morin - Renault	Experimental evaluation of a new class of algorithms for active noise attenuation Landau - Univ Grenoble- Alpes
17:10	Design of e-Powertrain mounting and structure borne whining Philip - PSA	Stability and energy localization of automotive vibration absorber with cyclic symmetry Renault - Valeo	Bass reflex enclosure for headset application Eller - Faurecia
17:35	The sound of silence of electric vehicles – Updated issues and answers Pardo - Renault	The importance of R-DoF in blocked force descriptions of mechatronic components Pasma - Vibes	Active Vibration Control Applied to Speakerless Audio Using the HyVibe Exciter Mamou - Mani - Hyvibe
18:00	Multi-criteria optimization of an electric powertrain to reach the NVH targets Lecuru - Vibratéc	Relative effect of sound and powertrain vibrations on the overall discomfort in a driving car experience Laroche - PSA	Sporty sound development and evaluation based on a DoE approach Toumadre - Faurecia
18:25	End Day 1		
19:00	Transfer to ...		
20:00	Dinner		

# Day 2 morning

08:15	<b>Day 2 Introduction</b>		
08:20	<b>Keynote : Thomas ANTOINE</b> NVH SIA Expert Community - Renault Group <i>Dataneering © ® for NVH : the use of data science for road noise prediction</i>		
08:40	<b>Keynote : Etienne PARIZET</b> - INSA Lyon <i>Human Sound Perception</i>		
09:00	<b>Pannel session :</b> <i>The automotive users NVH comfort and the metrics used by NVH experts</i>		
10:00	<b>Coffee &amp; Tee Break and Networking in the exhibition</b>		
	<b>Parallel Session</b>		
	<b>BEV/PHEV/MHEV</b> <i>Moderator: Peiran Li</i>	<b>NVH Design Methods for Vehicles and Components</b> <i>Moderator: Kresimir TRDAK</i>	<b>Insulation and acoustic integration</b> <i>Moderator: Said NAJI</i>
10:30	Analysis of the influence of Range Extender System Design on the vehicle NVH Performance CAERI		Numerical prediction of the sound absorption of a thermo-compressed 3D hood absorber using equivalent fluid models following high compression rates Lei - Treves
10:55	High frequency source characterization of an E-motor using Component Based TPA Choukri - Siemens	Research on Simulation and optimization of vehicle road noise Jiang - Caeri	Direct poroelastic encapsulation modelisation method for engine radiated noise reduction purposes Dumont - Stellantis
11:20	Emotor NVH issues for automotive applications: specification, influent parameters and predesign phase Raguenet - PSA	Design of a poroelastic lamellar metamaterial for sound attenuation Li-UTC	Data-guided computational analysis of cross-correlations for the digital reconstruction of membranes in polydisperse foams: Towards a novel optimization path Cong Truc Nguyen - Université Gustave Eiffel
11:45	Proper use and improvement of TPA method to control the whining noise of electrified powertrains Wojtowicki - Vibrattec	3D vision method for vibration pattern measurement Moulet - CTTM	Identification of global damping added by a trim foam on a steel plate with an inverse vibration problem Le Deunf - Cevaa
12:10	Experimental and numerical study for Ventilated Brake Disc low frequency harmonic noise Yang- BYD		Classification of non-conventional phenomena involved in meta-materials Chevillotte - Matelys
	<b>Plenary Session</b>		
13:00	<b>First NVH Congress Chairman conclusions</b> Leon Gavric		
13:15	<b>Lunch</b>		

# Day 2 afternoon

14:30 <b>Parallel Session</b>			
	<b>BEV/PHEV/MHEV</b> <i>Moderator: Jean -Christophe LE ROUX</i>	<b>NVH Design Methods for Vehicles and Components</b> <i>Moderator: Charles PEZERAT</i>	<b>Insulation and acoustic integration</b> <i>Moderator: Johan GREBERT</i>
14:30	Acoustic performance overview of new energy vehicles in Chinese market Dr Zhang - BYD	Development of a car aeroacoustic noise prediction method Foucart - Vsolution	Virtual Prototyping Platform for NVH System Design of EPS Moulaire -JTEKT
14:55	Dedicated powertrain mounting systems for electric vehicles Roth - Vibracoustic	Attenuation of an acoustical mode by using an Helmholtz resonator with nonlinear behavior Gourdon - CNRS	An advanced encapsulated acoustic solution for automotive applications Gontier - Recticel
Plenary Session			
15:30	<b>Sudents Award</b> + <b>Congress Conclusions</b>		
16:00	<b>End</b>		