

7th Symposium

Automotive and Railway Comfort

Acoustics & Vibrations

SIA and CTTM are again jointly organizing the 7th edition of the Automotive and Railway Comfort congress at the Palais des Congrès et de la Culture du Mans on October 24th and 25th, 2012.

Like previous editions, this congress will be an opportunity to bring together the leading experts to examine the actual events and the latest developments in automotive & railway NVH field.

A special session concerning the new pass-by regulation (R51-03) will be organized. This session include 7 communications from UTAC, automotive OEM, suppliers and engineering companies focusing on the database monitoring and on the impact on environmental protection and on automotive industry competitiveness.

Another attractive point is the presentation of a new aero-acoustic solver : Lattice Boltzmann Solver developed by a consortium including industrial companies and academic institutes.

2012

Le Mans

October 24 & 25, 2012

**Palais des Congrès
et de la Culture du Mans**



www.sia.fr



CENTRE DE TRANSFERT
DE TECHNOLOGIE DU MANS

www.cttm-lemans.com

8 h 30 Participants registration

- 9 h 00 Introduction**
Automotive Air Conditioning - from the beginning until now
U. DAUSCH - Valeo Thermal Systems Product

Session 1 – Aeroacoustics

- 9 h 30** *Flow-induced noise predictions of complete HVAC systems using a Lattice Boltzmann Method*
F. PEROT, M. MESKINE, F. GILLE - EXA Corporation
S. VERGNE, F. DUPUY - PSA Peugeot Citroën
- 10 h 00** *Aeroacoustic computations with a new CFD solver based on the Lattice Boltzmann Method*
D. RICOT - Renault / **E. FOQUET** - CS Communication et Systèmes
H. TOUIL - ENS / **H. MACHROUKI** - Gantha / **F. CHEVILLOTTE** - Matelys
M. MEDHI - Université Pierre et Marie Curie

- 10 h 30** *High speed train aeroacoustic solution for community and interior noise using Lattice Boltzmann Method*
M. MESKINE, F. PEROT, M-S. KIM, S. SENTHOORAN, D-M. FREED,
Z. SUGIYAMA, F. POLIDORO, S. GAUTIER - EXA Corporation

11 h 00 Exhibition visit, Coffee break

Session 2 – Simulation and test methods

- 11 h 30** *Measurement of SEA parameters for vehicle glasses*
M-H. MOULET - CTTM / **F. VANHERPE** - PSA Peugeot Citroën
- 12 h 00** *Source localization inside an automobile cabin using calculated Green's functions*
O. MINCK - Micro dB / **T. LE MAGUERESSE** - ENSIM

- 12 h 30** *Vibro-acoustic variability of a Body In White using Monte Carlo Simulation in a development process*
F. BARILLON, P. MORDILLAT, P. LARDEUR - Renault
M-B. BOUBAKER - UTC

13 h 00 Lunch

Session 3 – Powertrain and mechanical components

- 14 h 30** *Rear axle modal behavior under road excitation*
F. BARILLON - Renault
- 15 h 00** *Noise radiated by an electrical automotive powertrain: numerical simulation.*
J-B. DUPONT - Vibratéc
- 15 h 30** *Modeling methodology for the prediction of gearbox whining noise*
B. NELAIN, P. BOUVET - Vibratéc
J. PERRET-LIAUDET, E. RIGAUD - École Centrale de Lyon

Session 4 – Vehicle interior noise and trimmed body acoustics

- 14 h 30** *Multi-scale design of vibro-acoustic packages*
F-L. JAOUEN, F. CHEVILLOTTE, F-X. BECOT - Matelys
- 15 h 00** *Acoustic simulation techniques for the design of vehicle audio equipment.*
R. HALLEZ, K. VANSANT - LMS International
- 15 h 30** *Predicting the Loudness of Rattle in a Center-Console*
S. MERZ, P. SHORTER - VESI Group

16 h 00 Exhibition visit, coffee break

- 16 h 30** *Acoustic optimization of anechoic termination with and without superimposed flow*
E. PORTIER - CTTM / **J-P. DALMONT** - LAUM
- 17 h 00** *Experimental determination and prediction of turbocharger transfer matrix.*
E. PORTIER - CTTM / **J-P. LEANDRE** - Renault
- 17 h 30** *Noise radiation of air intake components - Transparency qualification method*
J. GRATADOUR - PSA Peugeot Citroën
- 18 h 00** *Interpreting sound emission of diesel engine separating combustion and mechanical noise sources*
L. LAMOTTE - Micro dB / **Q. LECLERE** - IVA INSA de Lyon

- 16 h 30** *Comprehensive Process for Car Engine Sound Design : from signal processing to audio system integrated in the vehicle*
P. BOUSSARD - Genesis
- 17 h 00** *Inhomogeneous PP/GF undertray : a new broadband absorber.*
J-F. RONDEAU, A. DUVAL, H. PERRIN - Faurecia
- 17 h 30** *Acoustic insulation of thermoset panel*
P. GILOTTE, B. SUROWIEC - Plastic Omnium

18 h 30 Exhibition 20 h 00 Cocktail and gala dinner

Session 5 – Pass-by noise regulation

- 8 h 30** Exterior pass-by noise regulation - Monitoring database and impact assessment
L-F. PARDO, S. FICHEUX - UTAC
- 9 h 00** Point of view of automotive OME for new pass-by noise regulation R51-03, challenges and new deployment of radiation sources
C. LOCQUETEAU - Renault
J-F. SALEM - PSA Peugeot Citroën

- 9 h 30** Tyre noise limits in Europe and its contribution to new pass-by noise regulation
E-U. SAEMANN - Continental
- 10 h 00** Exterior noise development process for commercial vehicles: contribution of driveline components to pass-by noise
A. SICRE, N. BLAIRON - Volvo Global Truck Technology

10 h 30 Exhibition visit, Coffee break

- 11 h 00** How to meet new Pass-by noise regulation ?
B. VERRECAS - LMS International
- 11 h 30** An Efficient Approach for Developing and Evaluating Appropriate Exterior Sounds
A. BRÜCKMANN, R. WILLIAMS - Novisim
A. SCHUMACHER, T-G. NIELSEN - B&K

- 12 h 00** Short review of engine bay acoustic trim and its effects to external and internal noise
K. TRDAK - Autoneum

12 h 30 Lunch

Session 2 bis – Simulation and test methods

- 14 h 00** ROADSENSE - Prevention of involuntary lane departure by road audio touch warning lines
P. ANELLI - Aximum
F. VIENNE - IFSTTAR / O. HOUX - IRCAM
F. ROSEY - CETE Normandie Développement / L-F. PARDO - UTAC
- 14 h 30** Panel Noise Contribution Analysis Reference (PNCAR)
B. ZAJAMSEK, A. GROSSO - Microflown Technologies

- 15 h 00** Interior noise sources identification with multiple spherical arrays in aircraft
S. PAILLASSEUR, L. LAMOTTE - Micro dB
D. RIBAS - Daher-Socata
- 15 h 30** Application of innovative beamforming arrays and resolution improvement algorithms to achieve noise reductions on a reach stacker
L. BOLLADE - DYVA
J-C. PASCAL - LAUM / V.BENOIT - ACB

16 h 00 End of Conference



Scientific committee



Pascal BOUVET - Vibratex
Jean-Pierre CIOLCZYK - Hutchinson
Nicolas DAUCHEZ - SUPMECA
Arnaud DUVAL - Faurecia
François FOHR - CTTM
Jean GRATADOUR - PSA Peugeot Citroën
Dominique HABAUT - CNRS-LMA Marseille
Daniel JUVE - Ecole Centrale Lyon
Saïd NAJI - Valeo
Laurent POLAC - Renault
Dominique ROMY - LMS
Kresimir TRDAK - Autoneum
Charles ZHANG - Renault



Registration conditions

Registration fees include participation to the congress, CD of proceedings, book of proceedings, coffee breaks, lunches, cocktail and dinner.

Where it is not possible to send the payment with the registration form, each registration form should be joined by an official purchase order.

In case of cancellation before October 1st, 2012, 50 % of the registration fees will be retained by the organisers. After this date the full registration fees will be retained. Registered participants not able to attend may nominate a substitute. Written notice must be provided.

CONTACT :

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Exhibition booths

9 sqm. fitted-out stand : 3 468,40 € VAT included
(2900 VAT excluded) :

- Melamine partitions with aluminium structure
- 1 table + 4 chairs
- 1 WIFI access
- A recto page to be included in the proceedings
- Conference registration for 2 people (access to the congress, proceedings and CD-Rom, breaks, lunches, cocktail and dinner)

Le Mans - Centre ville

For further information : www.ville-lemans.fr



CTTM
20, rue Thalès de Milet
Technopole Université
72 000 Le Mans

Registration form



Automotive and Railroad Comfort

October 24th & 25th, 2012

Name, first name : _____

Company : _____

Address : _____

Postcode : _____ City : _____

Tél : _____ Fax : _____

E-mail : _____

VAT number : _____

Intend to participate at symposium

- ☐ Speaker : *(free of charge)*
- ☐ Members (SIA, CTTM) : 1004.64 € TTC (840 € HT)
- Adhesion number : _____
- ☐ Non member : 1 136.20 € TTC (950 € HT)
- ☐ Will attend the dinner *(included in registration fees)*
- ☐ Booth rental (9 m²) : 3 468,40 € TTC (2900 € HT)

*Must be return before October 1st 2012
with your payment (check or bank transfert)
payable to CTTM*



Références bancaires / bank details
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