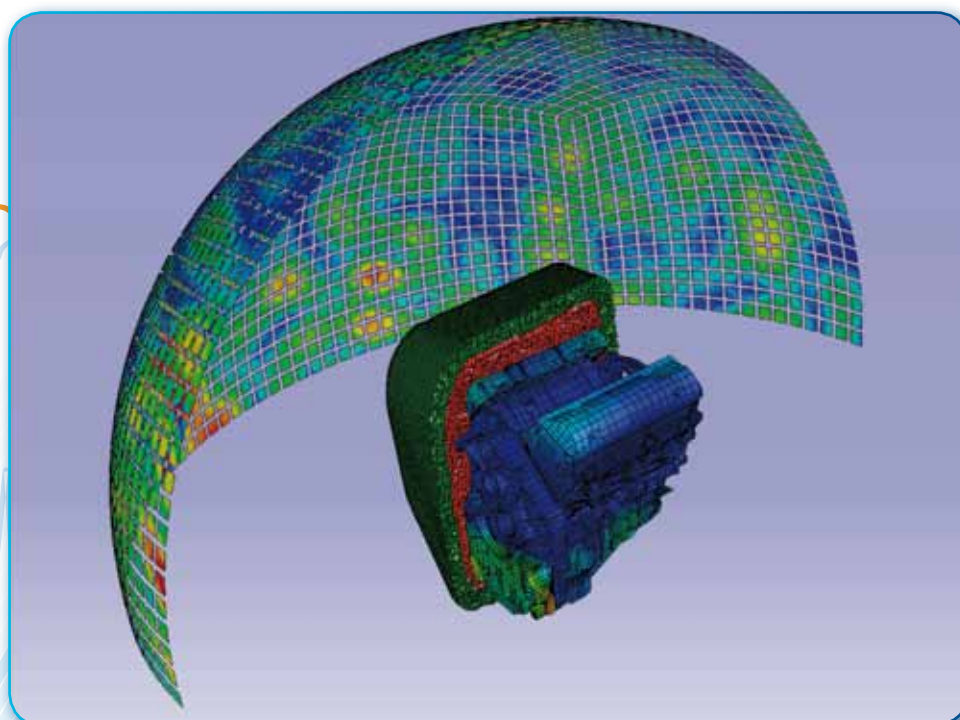


WORKSHOP

ACOUSTIC SIMULATION

October 13, 2011
SUPMECA Paris, Saint-Ouen - France



CONTEXT AND OBJECTIVES

The Acoustics section and the Simulation section of the SIA are jointly organizing a 1-day workshop on acoustic simulation methods.

The purpose of this workshop is to conduct a detailed review of the various vibro-acoustic simulation methods provided by software packages. For each method, the requirements in terms of input data, the intrinsic limitations and the sensitivity of the models to the calculation parameters will be presented.

10 software providers have been invited to the event. The technical presentations will cover a large number

of important and topical subjects, such as vibro-acoustic simulation of an electric motor, medium frequency structure-borne noise simulation using the FEM/SEA technique, as well as non-linear mechanical behaviour and gear whine simulation using special geometrical properties of involute shaped gears.

In order to enhance the communication between users and providers, 2 roundtables will be organized after the technical presentations. We hope that both users and providers will benefit from this workshop for future development and cooperation.

Chair

Charles ZHANG - RENAULT

Members

Pascal BOUVET - VIBRATEC

Jean-Pierre CIOLCZYK - HUTCHINSON

Nicolas DAUCHEZ - SUPMECA

Laurent DI VALENTIN - PSA PEUGEOT CITROËN

Arnaud DUVAL - FAURECIA

Jean GRATADOUR - PSA PEUGEOT CITROËN

Daniel JUVE - ECOLE CENTRALE LYON

Eric LANDEL - RENAULT

Saïd NAJI - VALEO

Dominique ROMY - LMS

Wolfgang SCHWARZ - AVL

Kresimir TRDAK - RIETER



08 : 30	Participants registration
08 : 55	Introduction
SESSION 1: VIBROACOUSTIC SIMULATION Session Chairs: J. GRATADOUR - Powertrain NVH innovation - PSA Peugeot Citroën N. DAUCHEZ - Professor - Supmeca Paris	
09 : 00	Keynote Speech Numerical simulation of NVH at Renault: stakes and vision E. LANDEL, Expert Leader Numerical modelling & Simulation REDS - Renault
09 : 20	Two examples of vehicle vibro-acoustic simulation & analysis: sound package performance and rattle noise L. MEBAREK, S. FRIKHA, V. COTONI - ESI
09 : 55	Modelling vibroacoustic interactions in the mid and high frequency range in the energy domain G. BORELLO - InterAC
10 : 20	Recent Enhancements in the Domain of Acoustic Analysis in MD Nastran M. ROBINSON - MSC
10 : 45	BREAK
11 : 15	Recent developments in Time Domain BEM T. ABBOUD, M. PALLUD, X. ZHOU - IMACS
11 : 40	Vehicle acoustics : state-of-the-art solutions based on finite elements J-P. COYETTE, G. LIELENS, B. VAN DEN NIEUWENHOF - FFT
12 : 05	Lattice-Boltzmann approach for Aeroacoustics F. GILLE, V. LE GOFF - EuroXA
12 : 30	ROUNDTABLE « CHALLENGES OF BROADBAND VIBRO-ACOUSTIC SIMULATION » Moderated by A. DUVAL - Faurecia
13 : 15	LUNCH BREAK
SESSION 2 : SOURCES AND MECHANICAL VIBRATIONS SIMULATION Session Chairs: W. SCHWARZ - Manager Advanced Simulation Technologies - AVL France P. BOUVET - Head of Automotive Department - Vibratec	
14 : 45	Keynote Speech Numerical modelisation during the development process of vehicle and powertrain L. ROTA, Structure Modelisation Expert - PSA Peugeot Citroën
15 : 05	Vibro-acoustic simulation strategy for electric motors R. HALLEZ - LMS International
15 : 30	Analysis of Gearbox Acoustics with AVL EXCITE T. RESCH, M. SOPOUCH, P. HERSTER - AVL List GmbH
15 : 55	Dynamic Analysis of Transmission Systems using RomaxDesigner M. PLATTEN - Romax Technologies
16 : 20	Multi Body Systems inside FEA in the frame of a more accurate vehicle synthesis T. WISSART, B. VOSS, N. ZANARDO - Samtech
16 : 45	ROUNDTABLE « CHALLENGE OF MECHANICAL NON LINEAR VIBRATIONS AND VIBRATION SOURCES » Moderated by L. DI VALENTIN - PSA Peugeot Citroën
17 : 30	CONCLUSION
17 : 40	END OF CONFERENCE

The organisers reserve the right to make changes to the programme should they be deemed necessary

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GENERAL INFORMATION



Official language:

English (no simultaneous translation)



Hotel accommodation

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ACCESS



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- **By the périphérique** :
 - Get off at « Porte de Clignancourt »
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 - Take the street "Rue du Docteur Bauer"
on the left [D22] [1.07km]
 - Continue on the street
"Rue Albert Dhalenne" (D22) [530m]
 - Take the street "Rue Saint-Denis"
on the right [350m]
 - Take the street "Rue des Châteaux"
on the left [73m]
 - Take the street "Rue Fernand Hainaut"
on the right [22m]



SUPMECA Paris
3 rue Fernand Hainaut
93407 Saint-Ouen
France

REGISTRATION FORM

ACOUSTIC SIMULATION WORKSHOP

OCTOBER 13, 2011

SUPMECA, SAINT-OUEN - FRANCE

REF: 2011-07

REGISTER DIRECTLY ON LINE: www.sia.fr

Return this form to

SIA – 79, rue Jean-Jacques Rousseau – F-92158 Suresnes Cedex

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- Registration fees include participation in the conference, CD of proceedings, Book of abstracts, coffee breaks and lunch.
- 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 conference, we regret that you will not be allowed entry to the conference.
- When we have received the registration form, we will send you a confirmation letter and an invoice.
Please indicate the accounts department address where necessary.
- In case of cancellation before September 13th, 2011, 30% of the registration fees will be retained by the organisers. 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.

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References on www.lmsintl.com/acoustics

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