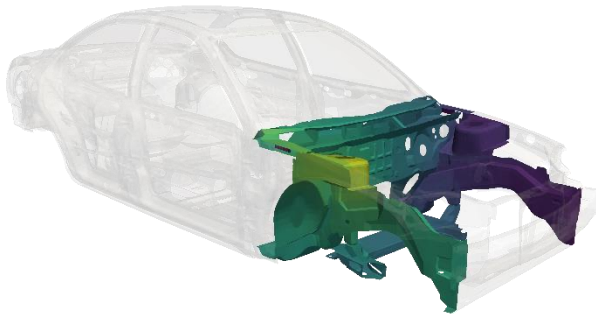


Numerical Methods for Predicting Noise and Vibration in Complex Systems



Model courtesy of FFT (MSC/Hexagon), Belgium

Massive reduction in fuel consumption and costs are foreseen by the use of advanced lightweight composite materials in the coming decades. However, composite structures exhibit poor acoustic isolation levels compared to conventional metallic materials. There is thus an urgent need for the development of novel materials and reliable modelling and design approaches for silent and lightweight multifunctional sound packages. As part of the *No2Noise* training network, we aim to develop efficient high-fidelity, high-frequency numerical simulation tools to predict noise and vibration transfer in and through multifunctional composites having poroelastic inclusions.

The workshop will bring together leading experts giving an overview over the state-of-the art of noise and vibration modelling in complex structures.

LIST OF SPEAKERS

- **Prof. Mohamed Ichchou/ Prof. Olivier Bareille**
Ecole Centrale de Lyon, France

- **Dr. Martin Richter**
University of Nottingham, UK

- **Prof. Kirill Horoshenkov**
University of Sheffield, UK

- **Dr. Rob Holehouse**
Product Manager, Romax Technology, UK

- **Prof. Alain Le Bot**
Ecole Centrale de Lyon, France

- **Dr. Jonathan Hargreaves**
University of Salford, UK

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3rd No2Noise Network Short Course

January 14-15, 2021
Microsoft Teams

SCHEDULE DAY 1, Thursday January 14, 2021

Link to MS Teams meeting for Thursday sessions:

Microsoft Teams meeting

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TIME (GMT)	SESSION	Presenter
12.30	Welcome to Network Short Course	Prof. Gregor Tanner, <i>University of Nottingham</i>
12.35	Wave-energy formulations and applications	Prof. Mohamed Ichchou/ Prof. Olivier Bareille, <i>Ecole Centrale de Lyon, France</i>
13.15	How to predict the acoustical properties of noise absorbing materials	Prof. Kirill Horoshenkov, <i>University of Sheffield, UK</i>
13.55	Break	
14.05	A radiative transfer equation theory for sound and vibration in high frequency vibroacoustics	Prof. Alain Le Bot, <i>Ecole Centrale de Lyon, France</i>
14.45	ESR 1 presentation	Abhilash Sreekumar
15.05	ESR 2 presentation	Arasan Uthayasuriyan
15.25	ESR 3 presentation	Vivek Ramamoorthy
16.00	Close for day	



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3rd No2Noise Network Short Course

January 14-15, 2021
Microsoft Teams

SCHEDULE DAY 2, Friday January 15, 2021		Location
<p>Link to MS Teams meeting for Friday sessions:</p> <hr/> <p>Microsoft Teams meeting Join on your computer or mobile app Click here to join the meeting Learn More Meeting options</p> <hr/>		
TIME (GMT)	SESSION	Presenter
09.00	Welcome to Network Short Course	Prof. Gregor Tanner, <i>University of Nottingham</i>
09.05	Synergies between the high-frequency Boundary Element Method and Geometric Acoustics	Dr. Jonathan Hargreaves, <i>University of Salford, UK</i>
10.05	An introduction to Dynamical Energy Analysis - predicting high-frequency behaviour using FEM meshes.	Dr. Martin Richter, <i>University of Nottingham, UK</i>
11.05	Break	
11.15	CAE-led design for noise reduction in electric vehicle drivetrains	Dr. Rob Holehouse <i>Product Manager- Electrification, Romax Technology, UK</i>
12.15	Close	



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