Symposium on the Acoustics of PoroElastic Materials

Le Mans, France
December 6-8th 2017
SAPEM 2017 is organised by the French Acoustical Society

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Forewords

It is our pleasure to welcome you in Le Mans for the 5th edition of the Symposium on the Acoustics of Porous Elastic Materials. With more than one hundred people coming from all over the world, this edition promises to be a great occasion to share knowledge and to exchange ideas around the recent progresses in the field of Sound Absorbing Materials.

Five general sessions are devoted to: Characterisation of Porous Materials, Physical models, Industrial applications, Computational methods and New materials. The session on Characterisation of Porous Materials is also joint with a DENORMS (Cost Action 15125) Training School: "Experimental techniques for acoustic porous materials and metamaterials". In addition to these historical sessions, we have thought that it was a nice idea to have a session focusing on Interaction of Porous Materials and Flow.

Le Mans University and its Acoustics Laboratory (LAUM UMR CNRS 6613) have a long history of research on porous materials and a constant ongoing effort on new thematics relative to sound absorbing materials and metaporous materials. It is for us a pleasure to host all of you during these three days and we feel honored and privileged to interact with you through this exciting program.

With these words, we wish you a pleasant and fruitful meeting. Enjoy the conference!

The SAPEM 2017 Organisation Committee
Practical information

2.1 Arrival

Several SAPEM volunteers will be at the Le Mans Railway station on December 5\textsuperscript{th} from 15:00 to 19:00. They will help you to find your hotel or to reach the University Campus. They will be located at the Entrance "Gare Nord" and will give you tram tickets. In order to find them: they will wear a Navy blue SAPEM cap and a green lime T-shirts.

The most convenient way to travel in Le Mans is the "Tram". You can find a map of Le Mans’ tramway and buses lines on Fig. 2.1. Click here to have more information on the SETRAM transportation company website. You can have an english version of the website by clicking on the lower banner of the website.

2.2 Conference venue

The conference will take place in Bâtiment Mercure on Le Mans University Campus. To join the conference venue from the city center, take tram T1 (direction: "Université", Fig. 2.1). Leave the tram at stop "Campus-Ribay". Two ways are depicted in Fig. 2.2. You can either cross the building "Maison de l’Université" (blue way) or by pass it (red way).

2.3 Wifi Access

\textbf{Network}: univ-libre-service  
\textbf{Login}: sapem  
\textbf{Password}: vsq34M
Figure 2.1: Map of the Le Mans’ tramway lines

Figure 2.2: Bâtiment Mercure
2.4 Social Media & Photos

During all the conference, photos will be taken and published on a dedicated Instagram account:

https://www.instagram.com/sapem17/

2.5 Presentation Upload

All the presentations will be displayed from the conference computer. In order to minimize troubles, we strongly recommend to send us PDF files. We have setup a system to send your files directly from the web. You can upload your slides directly from your laptop (at the conference venue or in your hotel room) by filling the following form:

https://goo.gl/forms/A1uD9Ae96d5wqEV23

We ask you to send us your presentations half a day before your talk.
Program

3.1 Tuesday December 5th

15h30 – 17h00  Welcome of participants
17h00 – 20h00  Visit of Le Mans circuit (upon registration only)
20h00 – 23h00  Chairman’s dinner

3.2 Wednesday December 6th

8h00 – 8h30  Welcome of participants
8h30 – 9h00  Opening ceremony

3.2.1 Session: Characterisation of Porous Materials. Chair: Stuart Bolton (Purdue University) and Laurent De Ryck (Siemens, Belgium)

9h00 – 9h45  Keynote : Photoacoustic determination of mechanical properties at microstructure level  
CHRIST GLORIEUX (KUL, Belgium)

9h45 – 10h05  Laboratory and In Situ Sound Absorption Measurement under a Synthetized Diffuse Acoustic Field: a Case Study on Five Materials  
O. Robin\textsuperscript{1}, C.K. Amedin\textsuperscript{1}, A. Berry\textsuperscript{1}, N. Atalla\textsuperscript{1}, O. Doutres\textsuperscript{2}, F. Sgard\textsuperscript{3}

1. Groupe d’Acoustique de l’Université de Sherbrooke - Sherbrooke, Canada
2. École de Technologie Supérieure - Montréal, Canada
3. Institut de Recherche en Santé et Sécurité au Travail - Montréal, Canada

10h05 – 10h25  Vibration damping properties of porous materials  
L. Rouleau\textsuperscript{1}, A. Guinauld\textsuperscript{2}, J.-F. Deu\textsuperscript{3}

1. LMSSC, Cnam Paris - PARIS, France
2. PIMMUMR 8006, ENSAM, CNRS, CNAM - PARIS, France

10h25 – 10h55  Coffee Break
10h55 – 11h15  Round Robin test on elastic properties of poro- and viscoelastic materials for vibro-acoustic applications  
P. Bonfiglio

1. Department of Engineering (ENDIF) - Ferrara, Italy

11h15 – 11h35  SLaTCoW (Spatial LAplace Transform for COmplex Wavenumber recovery) method for frequency / complex wavenumber dispersion relation recovery  

1. DRIVE EA1859 - Nevers, France  
2. LAUM UMR CNRS 6613, Le Mans Université, Le Mans, France  
3. Department of Mechanical Engineering - Seattle, United States of America

11h35 – 11h55  Elastic characterization of a porous layer in a sandwich structure  
L. Lei, J.D. Chazot, N. Dauchez

1. Université de technologie de compiègne - Compiègne, France

11h55 – 12h15  Micro- to Macro-scale Investigations of Anisotropy and Local Boundary Stiffness Variations in Open-cell Lightweight Foams  
P. Goransson, J. Cuenca, E. Lundberg, L. Manzari

1. KTH Royal Institute of Technology - Stockholm, Sweden  
2. Siemens Industry Software - Leuven, Belgium

12h15 – 13h30  LUNCH

13h30 – 13h50  POSTER SESSION

• Mechanical Characterisation of Isotransverse Acoustic Foams, G. Yan, X. Guo, B. Brouard, S. Sahraoui

1. LAUM UMR CNRS 6613, Le Mans Université, Le Mans, France

• Characterisation of inhomogeneous ducts and porous media and extrapolation to experimentally unavailable thermal conditions, J. Cuenca, L. De Ryck, A. Perdigon, T. Le Scolan

1. Siemens Industry Software - Leuven, Belgium

• Bayesian characterization of poroelastic materials saturated with heavy fluid, M. Niskanen, A. Duclos, O. Duzel, J.P. Groby, T. Huttunen, T. Lähivaara

1. Department of Applied Physics - Finland, Finland  
2. LAUM UMR CNRS 6613, Le Mans Université, Le Mans

• Fractional derivatives model to predict high frequency moduli of acoustic foams, X. Guo, G. Yan, L. Benyahia, S. Sahraoui

1. LAUM UMR CNRS 6613, Le Mans Université, Le Mans
13h50 – 14h10  Characterization of poroelastic materials through interface scattering and propagation models
S. Bourguignon\textsuperscript{1}, N. Bouhlel\textsuperscript{2}, A. Duclos\textsuperscript{3}, J.P. Groby\textsuperscript{3}

1. LS2N / Ecole Centrale de Nantes - NANTES, France
2. IETR - INSA Rennes - Rennes, France
3. LAUM UMR CNRS 6613, Le Mans Université, Le Mans, France

14h10 – 14h30  Characterizing rigid frame porous materials with deterministic and statistical inversion
M. Niskanen\textsuperscript{1}, J.P. Groby\textsuperscript{2}, A. Duclos\textsuperscript{2}, O. Dazel\textsuperscript{2}, J.-C. Le Roux\textsuperscript{3}, N. Poullain\textsuperscript{3}, T. Huttunen\textsuperscript{1}, T. Lähivaara\textsuperscript{1}

1. Department of Applied Physics - Finland, Finland
2. LAUM UMR CNRS 6613, Le Mans Université, Le Mans, France
3. CTTM - Le Mans, France

14h30 – 14h50  Efficient simulation of dispersion envelope of poro-elastic media
J. Rodenas\textsuperscript{1}, F. Chevillotte\textsuperscript{3}, F.-X. Bécot\textsuperscript{1}, L. Jaouen\textsuperscript{1}

1. Matelys research lab - vaux-en-Velin, France

14h50 – 15h20  Coffee Break

15h20 – 15h40  Poster Session

- Johnson-Champoux-Allard model in thermoacoustics, R. Dragonetti\textsuperscript{1}, M. Napolitano\textsuperscript{1}, R. Romano\textsuperscript{1}
  1. University of Naples, Federico II - Naples, Italy

- Tunable isolation band gaps in one-dimensional active piezoelectric sonic crystals, Q. Zhang\textsuperscript{1}, O. Umnova\textsuperscript{2}, Y. Lan\textsuperscript{3}
  1. The University of Salford; Harbin Engineering University - Greater Manchester, United Kingdom
  2. University of Salford, Acoustic research Centre - Salford, United Kingdom
  3. Harbin Engineering University - Harbin, China

- Acoustical and thermal joint approach for optimization of vegetal wools used in buildings, C. Piegay\textsuperscript{1}, P. Glé\textsuperscript{1}, E. Gourdon\textsuperscript{2}, E. Gourlay\textsuperscript{1}, S. Marceau\textsuperscript{3}
  1. Cerema Est - Strasbourg Laboratory - Strasbourg, France
  2. ENTPE, LTDS - Vaulx en Velin Cedex 03, France
  3. Ifsttar - Champs sur Marne Cedex 2, France
3.2.2 Session: Flow in presence of Porous Materials. Chair: Susann Boij (KTH, Sweden) and Gwénaël Gabard (LAUM, France)

15h40 – 16h25 Keynote: Boundary conditions modeling acoustic linings in flow
EDWARD BRAMBLEY (Warwick University, UK)

16h25 – 16h45 Instability over a Porous Line in a Duct with Flow
Y. Aurégan

16h45 – 17h05 Analysis of the non-linear behavior of micro-perforated plates using lattice Boltzmann method
F. Chevillotte, P. Marchner, J.P. Parra Martinez, R. Roncen, F. Simon

17h05 – 17h25 Transmission losses of a turbofan inlet duct lined with porous materials
E. Perrey-Debain, C. Chan, J.-M. Ville, B. Poirier

17h25 – 17h45 Properties of bulk reacting absorbers subject to flow and temperature boundary layers
S. Boij, A. Färm, R. Glav

17h45 – 18h05 Acoustic propagation in a circular pipe with periodic inclusions
J. Golliard, Y. Aurégan

19h30 – Reception at the City hall

3.3 Thursday December 7th

3.3.1 Session: Physical models. Chair: Keith Attenborough (The Open University, UK) and Alan Geslain (ISAT Nevers, France)

8h30 – 9h15 Keynote: Thermacoustics: an overview
GAELLE POIGNAND (Le Mans Université, France)
9h15 – 9h35  Poster Session

- Evaluating Efficiency of SoundProof Paint Using Microporous Pigments, A. Shimpi\textsuperscript{1}, A. Shimpi\textsuperscript{1}
  1. S.K.Acoustic - Pune, India

- Interaction of high amplitude waves with acoustic metamaterials, D. Brooke\textsuperscript{1}
  1. University of Salford - Manchester, United Kingdom

- On the conditions for perfect absorption of sound by rigidly-backed layers of porous materials, N. Jiménez\textsuperscript{1}, V. Romero Garcia\textsuperscript{1}, J.P. Groby\textsuperscript{1}
  1. LAUM UMR CNRS 6613, Le Mans Université, Le Mans, France

- Development of an efficient capture and amplification system of sound waves, K. Gadonna\textsuperscript{1}, Z. Zhao\textsuperscript{1}, B. Williatte\textsuperscript{1}, A. Senouci\textsuperscript{1}
  1. Polymont Engineering - Villiers-Saint-Frédéric, France

9h35 – 9h55  Advances in the microstructure and transport properties of random fibrous materials

C. Perrot\textsuperscript{1}, R. Panneton\textsuperscript{2}, J. Guilleminot\textsuperscript{3}, V. Monchiet\textsuperscript{1}, V. Leroy\textsuperscript{4}, G. Jacqs\textsuperscript{5}, M. He\textsuperscript{1}, H.-T. Luu\textsuperscript{1}

1. Université Paris-Est Marne-la-Vallée - Marne-la-Vallée, France
2. Université de Sherbrooke - Sherbrooke, Canada
3. Duke University - Durham, United States of America
4. Laboratoire Matière et Systèmes Complexes, Univ. Paris Diderot - Paris, France
5. CSTB - Champs-sur-Marne, France

9h55 – 10h15  Reflection and transmission by a double porosity layer obeying Berryman-Wang theory

F.Z. Kachkouch\textsuperscript{1}, H. Franklin\textsuperscript{1}, A. Tinel\textsuperscript{1}, A. Alem\textsuperscript{1}, H. Wang\textsuperscript{1}

1. University Le Havre Normandie - Le Havre, France

10h15 – 10h45  Coffee Break

10h45 – 11h05  Poster Session

- Nanofibrous electrospun membranes for acoustic applications, A. Hurrell\textsuperscript{1}, K. Horoshenkov\textsuperscript{1}, M. Pelegrinis\textsuperscript{2}
  1. The University of Sheffield - Sheffield, United Kingdom
  2. John Cotton Group Ltd - Mirfield, United Kingdom

- Experimental research of acoustic louver sound insulation, T. Astrauskas\textsuperscript{1}, T. Vilniakis\textsuperscript{1}, O. Khrystoslavenko\textsuperscript{1}, T. Jameviit\textsuperscript{1}, R. Grubliauskas\textsuperscript{1}
  1. Vilnius Gediminas Technical University - Vilnius, Lithuania

- Modelling of poroelastic media with localised mass inclusions, T. Zielinski\textsuperscript{1}, L. Jankowski\textsuperscript{1}, K. Opieła\textsuperscript{1}, E. Deckers\textsuperscript{2}
  1. Inst. of Fund. Technological Research - Warsaw, Poland
  2. Department of Mechanical Engineering, KU Leuven - Heverlee (Leuven), Belgium
• Acoustic response of anisotropic multilayered structures: sub-layering of the anisotropic poroelastic core and influence of the material natural axis orientation, J.P. Parra Martinez\textsuperscript{1}, J. Cuenca\textsuperscript{2}, P. Goransson\textsuperscript{1}, O. Dazel\textsuperscript{3}
  1. KTH Royal Institute of Technology - Stockholm, Sweden
  2. Siemens Industry Software - Leuven, Belgium
  3. LAUM UMR CNRS 6613, Le Mans Université, Le Mans, France

11h05 – 11h25 Acoustic Dissipation by Films: a Step Towards Liquid Foams and Membrane-Type Metamaterials Modelling
C. Gaulon\textsuperscript{1}, J. Pierre\textsuperscript{2}, F. Elias\textsuperscript{1}, V. Leroy\textsuperscript{1}, C. Derec\textsuperscript{1}
  1. Laboratoire Matière et Systèmes Complexes, Univ. Paris Diderot - Paris, France
  2. Institut Jean Le Rond d’Alembert, Univ. Pierre et Marie Curie - Paris Cedex 05, France

11h25 – 11h45 Acoustic wave propagation in fractal porous material
Z.E.A. Fellah\textsuperscript{1}, A. Berbiche\textsuperscript{2}, Z.E.A. Fellah\textsuperscript{1}, E. Ogum\textsuperscript{1}, C. Depollier\textsuperscript{3}
  1. LMA, CNRS UPR 7051 - Marseille, France
  2. Laboratoire de Physique Théorique, Faculté de Physique, - bab Ezzouar, Algeria
  3. LAUM UMR CNRS 6613, Le Mans Université, Le Mans, France

11h45 – 12h05 New topics on the Nonlocal Maxwellian theory of sound propagation:"External Force - External Current" acoustic-electromagnetic analogy, and quasi-analytical validations of the action-response homogenization procedures.
N. Nemati\textsuperscript{1}, D. Lafarge\textsuperscript{2}
  1. Lab. de Modelisation et Simulation Multi-Echelle, UMR 8208 - Marne-la-Vallee, France
  2. LAUM UMR CNRS 6613, Le Mans Université, Le Mans

12h05 – 13h30 Lunch

3.3.2 Session: New materials. Chair: Vicente Roméro-Garcia and Jean-Philippe Groby (LAUM, France)

13h30 – 14h15 Keynote: Optimal Sound-Absorbing Structures
PING SHENG (The Hong Kong Univ. of Sci. & Tech.)

14h15 – 14h35 Microstructures for lowering the frequency of the quarter wavelength resonance of a hard-backed rigid-porous layer
K. Attenborough\textsuperscript{1}
  1. The Open University - Milton Keynes, United Kingdom

14h35 – 14h55 3D printed membrane-type acoustic metamaterials for small-scale applications
C. Casarini\textsuperscript{1}, B. Tiller\textsuperscript{1}, J. Windmill\textsuperscript{1}, J. Jackson\textsuperscript{1}
14h55 – 15h15  Influence of activation processes on the of activated carbon felts microstructure and impact on the acoustic performances
H. Karpinski¹, O. Umnova¹, R. Venegas Castillo², J. Hargreaves¹, A. Nahil³, S. Lehmann Fernandez⁴

1. University of Salford, Acoustic research Centre - salford, United Kingdom
2. Université de Lyon, École Nationale des Travaux Publics de l’État - Vaulx-en-Velin, France
3. University of Leeds - Leeds, United Kingdom
4. Carbon Air Ltd - Salford, United Kingdom

15h15 – 15h35  Straw-inspired Metamaterial for Sound Absorption
W. Huang¹, L. Schwan¹, V. Romero García¹, J.-M. Génévaux¹, J.P. Groby¹

1. LAUM UMR CNRS 6613, Le Mans Université, Le Mans, France

15h35 – 16h05  Coffee Break

16h05 – 16h25  Metaporous Layers for Broadband Sound Absorption using Multiple Slow Waves
J.S. Lee¹, J. Yang², Y.Y. Kim³

1. Chungnam National University - Daejeon, Republic of Korea
2. Samsung Electronics - Gyeonggi-do, Republic of Korea
3. Seoul National University - Seoul, Republic of Korea

16h25 – 16h45  Acoustic performance of a bubble meta-screen
N. Sharma¹, M. Toyoda², N. Kessissoglou³

1. University of Salford - Salford, United Kingdom
2. Kansai University - Osaka, Japan
3. The University of New South Wales - Sydney, Australia

16h45 – 17h05  Propagation of low frequency sound through a metaporous layer of subwavelength thickness: Homogenization with numerical validation
L. Schwan¹, J.P. Groby¹, O. Umnova²

1. LAUM UMR CNRS 6613, Le Mans Université, Le Mans, France
2. University of Salford, Acoustic research Centre - salford, United Kingdom

17h05 – 17h25  Perfect absorption in acoustic metamaterials based on open lossy resonant building blocks
V. Romero García¹, N. Jiménez¹, V. Pagneux¹, J.P. Groby¹
17h25 – 17h45  Perfect and broadband sound absorption based in rainbow trapping phenomena for transmission problems  
N. Jiménez¹, V. Romero García¹, J.P. Groby¹

1. LAUM UMR CNRS 6613, Le Mans Université, Le Mans, France

19h00 – 23h30  VISIT OF ABBAYE ROYALE DE L’EPAU AND GALA DINNER

3.4  Friday December 8th

3.4.1  Session: Industrial applications. Chair: Arnaud Duval (Trèves, France) and Ludovic Desvard (Dyson, UK)

8h45 – 9h30  Keynote: A sub-domain system approach based on symmetric variational coupling of Boundary and Finite Element Methods: application to virtual prototyping of trimmed vehicles  
MOHAMED-ALI HAMDI (UTC, ESI Group, France)

9h30 – 9h50  Application and Simulation of Microperforated Panels in a complex Sound Field  
S. Floss¹, M. Kaltenbacher¹

1. Technical University of Vienna/ E325 - Vienna, Austria

9h50 – 10h10  Assessment of the Structure Borne Insertion Loss performance of interior vehicle treatments  
T. Delpero¹, R. D’Amico¹, R. Stelzer¹, T. Courtois¹

1. Autoneum Management AG - Winterthur, Switzerland

10h10 – 10h30  Cross-section based Analysis of Porous Metamaterial lined Mufflers  
N. Sharma¹, O. Unnova², A. Moorhouse¹

1. University of Salford - Salford, United Kingdom  
2. University of Salford, Acoustic research Centre - salford, United Kingdom

10h30 – 10h50  COFFEE BREAK

10h50 – 11h10  Upgrading hybrid stiff insulators performance through tailored solid inclusions localization: the Polyfoam and Ecofelt solutions  
A. Duval¹, G. Crignon¹, M. Goret¹, D. Lemaire¹

1. TREVES CERA - Reims Cedex 2, France
11h10 – 11h30 Porous materials in consumer products, the Dyson approach
I. Perez Pablos

1. Dyson - Malmesbury, United Kingdom

11h30 – 11h50 Numerical modelling of the acoustics of low density fibrous media having a distribution of fiber sizes
T. Herdtle¹, Y. Xue², J.S. Bolton²

1. 3M Center - St. Paul, United States of America
2. Ray W. Herrick Labs, Purdue University - West Lafayette IN, United States of America

11h50 – 12h10 Microstructure morphological and acoustical macro-behavior analysis of high density filled foam
M.T. Hoang¹, V. Marcel¹, J.-F. Rondeau¹, A. Curien², L. Dejaeger¹

1. Faurecia Acoustics and Soft Trim Div. - Mouzon, France
2. Classe préparatoire, Lycée Kléber - Strasbourg, France

12h10 – 13h10 LUNCH

3.4.2 Session: Computational methods. Chair: Elke Deckers (KULeuven, Belgium) Emmanuel Perrey-Debain (UTC, France)

13h10 – 13h55 Keynote: Guided waves computation with porous media
BENOIT NENNIG (Supmeca, France)

13h55 – 14h15 The shifted cell operator technique applied to equivalent fluids models for the computation of dispersion diagrams of periodic porous materials
D. Magliacano¹, M. Ouisse¹, A. Khelif¹, S. De Rosa², F. Franco²

1. Université de Franche-Comté - femto-st DMA - Besançon, France
2. Università degli Studi di Napoli Federico II - DII Aerospaziale - Napoli, Italy

14h15 – 14h35 Acoustic modeling of filters and counter-current exchangers using a double equivalent fluid homogenization approach.
G. Lielens¹, A. Talbot¹

1. Free Field Technologies - Mont Saint Guibert, Belgium

14h35 – 14h55 Efficient simulation of vibro-acoustic problems with poro-elastic damping using a Matrix-free Model Order Reduction scheme
S. Jonckheere¹, O. Atak², H. Bériot², W. Desmet¹

1. KU Leuven - Heverlee, Belgium
2. Siemens Industry Software NV, Product Lifecycle Management - Leuven, Belgium
14h55 – 15h15 Coffee Break

15h15 – 15h35 Acoustic wave transmission conditions on perforated rigid, or elastic plates - homogenization and computing
E. Rohan¹, V. Lukes¹

1. University of West Bohemia - Pilsen, Czech Republic

15h35 – 15h55 Adaptive High-order FEM for the mixed U,p poro-elastics equations
H. Bériot¹, O. Dazel², G. Gabard², E. Deckers³

1. Siemens Industry Software NV, Product Lifecycle Management - Leuven, Belgium
2. LAUM UMR CNRS 6613, Le Mans Université, Le Mans, France
3. Department of Mechanical Engineering, KU Leuven - Heverlee (Leuven), Belgium

15h55 – 16h15 The link between the plane-wave absorption coefficient and the sound field due to a point source
R. Dragonetti¹, M. Napolitano¹, R. Romano¹

1. University of Naples, Federico II - Naples, Italy

16h15 – 16h35 Fibrous Material Microstructure Design for Optimal Damping Performance
J.S. Bolton¹, Y. Xue¹

1. Ray W. Herrick Labs, Purdue University - West Lafayette IN, United States of America

16h35 – 16h55 Closing Ceremony

18h00 – 23h30 Visit of the old city and Farewell Dinner at "Café Rossi"
Social events

4.1 Tuesday December 5, 17:15: Visit of Le Mans Race circuit

This visit is an opportunity to discover the site of the 24 Hours of Le Mans Circuit which is unique in the world with its highly eventful and fascinating tales. A guide will accompany us and share anecdotes while you can take a look behind the scenes. You will get access to the inner-circuit headquarter, the press room and the podium where you will be able to feel the thrill of a victory in Le Mans. A bus will leave Le Mans University Campus at 17:15. The visit is free for SAPEM participants but is restricted to those who have registered.

4.2 Wednesday December 6, 19:30, Reception at the City hall

On Wednesday December 6th, SAPEM participants are invited at Le Mans City Hall. It is located Place Saint Pierre, close to the old city and Le Mans Cathedral. You can then take a tour in the old city and admire our "Chimères".

You may reach the City Hall from the Tram (see Fig. 2.1). The stop is "Eperon, Cité Plantagenet". Then walk through Rue de l'Eperon and Avenue Rostov sur Le Don. Then take "Escalier des Ponts Neufs" (on the title page of this document). Two differences (at least) with the photo: You will be there by night and we have white christmas trees standing on the stairs.

4.3 Thursday December 7, 19:00: Gala Dinner at the Royal Abbey of Épau

The Gala Dinner will be held on Thursday December 7th at the medieval Abbey of Épau after a guided tour of the building. Buses will depart from the University campus at 18h15 to take you there before the event starts. Likewise, a transport from the Abbey back to the city center and the campus is organized after the dinner. You may choose to travel to the Abbey by tram, if so be on time using the plan on figure 4.2 to reach the Abbey from the end of the tramline T2.

We will have the pleasure to hear the band Takasouffler during the cocktail. The concert is offered by Le Mans Technology Transfer Center (CTTM).
4.4 Friday December 8, 18:00: Visit of the old city and Farewell Dinner

After the closing ceremony, we propose you a visit of the old city with lanterns. The meeting point is at the Pilier Rouge (in the old city, close to the city hall). A guide will let you enjoy all the treasures of our heritage. The end of the visit is at Caffé Rossi for a farewell dinner, this will be at your own expense.
Figure 4.2: Royal Abbey of Épau
Committees

5.1 International Scientific Committee

- Keith Attenborough (Open-University London, UK)
- Yves Aurégan (LAUM, Le Mans University, France)
- Susann Boij (KTH, Sweden)
- Stuart Bolton (Purdue University, USA)
- Laurent De Ryck (LMS Siemens, Belgium)
- Elke Deckers (KULeuven Belgium)
- Ludovic Desvard (Dyson, UK)
- Arnaud Duval (Treves, France)
- Peter Göransson (KTH, Sweden)
- Kirill Horoshenkov (Sheffield University, UK)
- Anton Krynkin (Univ. Sheffield, UK)
- Emmanuel Perrey-Debain (Université Technologique de Compiègne, France)
- Vicente Romero-Garcia (LAUM, Le Mans University, France)

5.2 Organisation Committee

- Olivier Dazel, Jean-Philippe Groby, Aroune Duclos, Sandrine Chassagne, Pauline Raséra, Véroniqua Kouévi (LAUM, Le Mans University, France)
- François-Xavier Bécot, Luc Jaouen (Matelys, France)
- Jean-Christophe Le Roux (CTTM, Le Mans, France)
In conferences, it is very important to have very clever keynote speakers (we have), nice participants (we have), interesting discussions (we have), good food (we have), liters of coffee (we have) but the most important is to have a group of volunteers who can help for the organization (we have). Here is the list of DENORMSAPEM Task force (Navy Blue Cap, Lime T-Shirt):

- Florian Allein
- Laurianne Barguet
- Jean Boulvert
- Théo Cavalieri
- Samuel Dupont
- Mathieu Gaborit
- Xinxin Guo
- Weichun Huang
- Nathalie Lamothe
- Matthieu Malléjac
- Charlotte Saverna
- Logan Schwan
- Guqi Yan
List of Participants

Kolawole Adejumobi  
Acoustic expert limited, Nigeria

Florian Allein  
LAUM UMR CNRS 6613 - Le Mans Université, Le Mans, France

Emma Arvidsson  
Saint-Gobain Ceilings, Sweden

Tomas Astrauskas  
Vilnius Gediminas Technical University, Lithuania

Keith Attenborough  
The Open University, United Kingdom

Yves Aurégan  
LAUM UMR CNRS 6613 - Le Mans Université, Le Mans, France

Laurianne Barguet  
LAUM UMR CNRS 6613 - Le Mans Université, Le Mans, France

François-Xavier Bécot  
MATELYS - Research Lab, France

Hasina Begum  
University of Sheffield, United Kingdom

Julie Béhue  
LAUM UMR CNRS 6613 - Le Mans Université, Le Mans, France

Hadrien Beriot  
Siemens Industry Software NV., Belgium

Susann Boij  
KTH, Sweden

Mads Bolberg  
ROCKWOOL International A/S, Denmark

J. Stuart Bolton  
Ray W. Herrick Labs, Purdue University, USA

Paolo Bonfiglio  
University of Ferrara, Italy

Bram Botterman  
Eindhoven University of Technology, Netherland

Nizar Bouhlel  
INSA DE RENNES, France

Jean Boulvert  
LAUM UMR CNRS 6613 - Le Mans Université, Le Mans, France

Ed Brambley  
University of Warwick, United Kingdom

Daniel Brooke  
University of Salford, United Kingdom

Thomas Burns  
Soundcoat, USA

Cecilia Casarini  
University of Strathclyde, United Kingdom

Théo Cavalieri  
LAUM UMR CNRS 6613 - Le Mans Université, Le Mans, France

Shuyu Chen  
Acoustic Metamaterials Group Ltd., Hong-Kong

Fabien Chevillotte  
Matelys - Research lab, France

Nicholas Chotiros  
US ONRG, United Kingdom

Jacques Cuenca  
Siemens Industry Software, Belgium

Massimo Emiliano D’Elia  
LAUM UMR CNRS 6613 - Le Mans Université, Le Mans, France

Jean-Pierre Dalmont  
Le Mans Acoustique, France

Nicolas Dauchez  
Université de Technologie de Compiègne, France

Olivier Dazel  
LAUM UMR CNRS 6613 - Le Mans Université, Le Mans, France

Laurent De Ryck  
SIEMENS INDUSTRY SOFTWARE, Belgium

Elke Deckers  
KU Leuven, Belgium

Tommaso Delpero  
Autoneum Management AG, Switzerland

24
Claude Depollier  
LAUM UMR CNRS 6613 - Le Mans Université, Le Mans, France

Caroline Dereg  
Matière et Systèmes Complexes, Paris, France

Ludovic Desvart  
Dyson, United Kingdom

Jean-François Deu  
Cnam, France

Iliana Díaz Noriega  
Le Mans Acoustique, France

Raffaele Dragonetti  
University of Naples, Federico II, Italy

Donovan Du Toit  
The University of Auckland, New-Zealand

Aroune Duclos  
LAUM UMR CNRS 6613 - Le Mans Université, Le Mans, France

Samuel Dupont  
LAUM UMR CNRS 6613 - Le Mans Université, Le Mans, France

Arnaud Duval  
TREVES CERA, France

Matt Edwards  
Matelys Research Lab, France

Maaz Farooqui  
LAUM UMR CNRS 6613 - Le Mans Université, Le Mans, France

Zine El Abiddine Fellah  
LMA, CNRS UPR 7051, France

Sebastian Floss  
Technical University of Vienna/ E325, Austria

Hervé Franklin  
LOMC UMR CNRS 6294, France

Gwenael Gabard  
LAUM UMR CNRS 6613 - Le Mans Université, Le Mans, France

Mathieu Gaborit  
LAUM UMR CNRS 6613 - Le Mans Université, Le Mans, France & KTH Royal Institute of Technology, Sweden

Katell Gadonna  
Polymont Engineering, France

Camille Gaulon  
Université Paris Diderot, France

Alan Geslain  
ISAT, France

Christ Glorieux  
KU Leuven, Belgium

Joachim Golliard  
CTTM, France

Mathieu Gontier  
Recticel, Belgium

Peter Goransson  
KTH Royal Institute of Technology, Sweden

Jean-Philippe Groby  
LAUM UMR CNRS 6613 - Le Mans Université, Le Mans, France

Xinxin Guo  
LAUM UMR CNRS 6613 - Le Mans Université, Le Mans, France

Mohamed-Ali Hamdi  
Université de Technologie de Compiègne, France

Reza Hedayati  
Delft University of Technology, Netherlands

Thomas Herdtle  
3M, USA

Yoann Heulin  
Isover CRIR, France

Minh Tan Hoang  
Faurecia Acoustics and Soft Trim Div., France

Weichun Huang  
LAUM UMR CNRS 6613 - Le Mans Université, Le Mans, France

Alistair Hurrell  
The University of Sheffield, United Kingdom

Luc Jaouen  
Matelys, France

Noé Jiménez  
3M - CSIC / UPV, Spain

Stijn Jonckheere  
KU Leuven, Belgium

Fatima Zahraa Kachkouch  
LOMC UMR CNRS 6294, France

Hugo Karpinski  
University of Salford, United Kingdom

Loïc Kerisit  
Le Mans Acoustique, France

Olga Khrystoslavenko  
VTGU, Lithuania

Véronique Kouévi  
LAUM UMR CNRS 6613 - Le Mans Université, Le Mans, France

Jana Kurbelova  
Le Mans Acoustique, France

Yeboah Kwame  
abesco, Ghana

Denis Lafarge  
LAUM UMR CNRS 6613 - Le Mans Université, Le Mans, France

Nathalie Lamothe