

Newsletter's Summary

Agenda [page 2](#)



Get a reminder on upcoming events and deadlines.
Feel free to contribute if you become aware of any change!

Local News [page 5](#)



Infos about Internoise and opportunities for the Young Acousticians at the famous conference!

Job announcements [page 6](#)



Find your dream job in this fresh list of opportunities!
If you wish to announce a position, please contact the YAN.

Publications [page 7](#)



This time, read about thermoacoustics with a publication from Le Mans, France.

Board's Highlights

POST-DOCS

In appendix, find a couple of post-docs on aero-acoustics to be attributed as soon as possible. In Le Mans (France) and in french.

page 9

PUBLI

Read a publication measurements of cycles in thermoacoustic engine!

page 7

Upcoming Events



January 2019

16th — New WHO Noise Guidelines. London, UK.



17th - 19th — **AFPAC 2019** — Anglo French Physical Acoustic Conference. Fréjus, France.



January 2019

19th — **SAnPM** — Symposium on Acoustics of Nanoporous Materials. Salford, UK.



March 2019

18th - 21st — **DAGA 2019** — Jahrestagung für Akustik. Rostock, Germany.



20th - 23rd — **AES Dublin 2019** — 146th International Pro Audio Convention. Dublin, Ireland.



27th - 29th — **IIA 2019** — AES International Conference on Immersive and Interactive Audio. York, UK.



Did we miss a date ?

Behind the YAN, there's humans you can help!

The agenda listing is all gathered by hand: if you think we missed something relevant, don't hesitate to tell us!

yan@euracoustics.org

Upcoming Deadlines



January 2019

31st — ACOUSTICS 2019. Milton Keynes, UK. [Deadline for abstract](#)



31st — **ICSV 26** — 26th International Congress on Sound and Vibration. Montreal, Canada. [Deadline for paper](#)



February 2019

1st — **ICA 2019** — 23rd International Congress on Acoustics. Aachen, Germany. [Deadline for abstract](#)



15th — **DAGA 2019** — Jahrestagung für Akustik. Rostock, Germany. [Deadline for abstract submission of "late posters"](#)



March 2019

1st — **Internoise 2019** — 48th International Congress and Exhibition on Noise Control Engineering. Madrid, Spain. [Deadline for paper submission](#)



1st — **NOISECON 2019** — INCE-USA Annual General Meeting. San Diego, USA. [Deadline for abstract submission](#)



15th — **DAGA 2019** — Jahrestagung für Akustik. Rostock, Germany. [Deadline for poster award applications](#)



31st — **DAGA 2019** — Jahrestagung für Akustik. Rostock, Germany. [Deadline for paper submission](#)



Major Conferences



ICA 2019

The **International Congress on Acoustics** is a week-long gathering of researchers in all the domains of acoustics and vibrations. This time the conference is organised by the German Acoustical Society (DEGA). The wide range of topics covers subjects from speech processing, building acoustics, bioacoustics, measurement and sensor technologies and much more.

Where/when:

Sept. 09 - 13 2019. Aachen, Germany

Important Dates

- Feb. 1st** Abstract Submission Deadline
- Mar. 1st** Notification of Acceptance
- May 1st** Deadline for peer-reviewed manuscripts
- Jun. 1st** Paper Submission Deadline
- Jun. 1st** Early Bird Registration

Grants

There are **two grants offered** by the German Acoustical Society (DEGA), along with the International Commission for Acoustics (ICA) and the American Society of Acoustics (ASA).

ICA-ASA-DEGA Young Scientist Conference

Grant for international students outside Germany. **Deadline: February 1st, 2019**

DEGA Young Scientist Grants

Grant for German students.
Deadline: July 15th, 2019

Internoise 2019

The renowned **Internoise** will be hosted by the Spanish Acoustical Society (SEA), and will feature speakers such as Inés Lopez Arteaga on road & rail noise and Jun Yang on sound zone reproduction using loudspeaker array. The congress will cover topics from fundamental research to engineering in all the domains of acoustics and vibration control.

Where/when:

June 16 - 19 2019. Madrid, Spain

Important Dates

- Mar. 1st** Paper Submission Deadline
- Apr. 15th** Early Bird Registration
- May 31st** Standard Registration

ICSV 2019

The **International Congress on Sound and Vibrations** is a leading event in the area of acoustics and vibration and provides an important opportunity for scientists and engineers to share their latest research results and exchange ideas on theories, technologies and applications in these fields.

Where/when:

July 7 - 13 2019. Montreal, Canada

Important Dates

- Jan. 31st** Peer-reviewed Paper Submission
- Mar. 31st** Non reviewed Paper Submission
- Apr. 15th** Early Bird Registration
- May 31st** Standard Registration

Local News



Happy New Year!

2018 has come and go, and with it a lot of very nice and fruitful encounters, conferences, projects and achievements.

In 2018, the YAN changed a lot: new design for the newsletter, conference sessions, new board members, etc. 2018 really was an interesting year and hopefully, 2019 will be one too.

We wanted to take this opportunity to thank Cristina Zamorano Martinez for the time she spent animating the network. She held the chair for more than 4 years, managing the YAN to better serve the community of young acousticians in Europe and in the world. Thank you Cristina!

In October 2018, Cristina stepped off and Mathieu Gaborit took over the YAN chair. On your side, not much has changed: the newsletter is still here and you'll keep receiving information about the world of acoustics. The board is now working on ways to reach you and bring young acousticians together for more than social event (even though we won't stop having drinks all together during conferences!).

We also wanted to thank some of the board members that left, including our current publications manager Bartłomiej. Thanks to all of you for the energy you dedicated to this project!

May 2019 be as fruitful and fulfilling as you expect and may we meet at the next social event!

Urgent: open positions in Le Mans, France

A couple of open positions in Le Mans, France, must be filled as soon as possible. These are post-doctoral positions treating about noise reduction for aircraft. They include both aero-acoustics and electro-acoustics.

The offers (in French) are included in the appendices. Inquiries and applications must be sent to Stéphane Durand by email (stephane.durand@univ-lemans.fr).

INAD 2019: International Noise Awareness Day

This international day aims at raising awareness of the public about bothersome noise either at work or at home. This year, INAD will take place on Wednesday 24th of April. More information is included on the website: <http://chcheating.org/noise/day/>

Join us!

The YAN is always looking for new local representatives and motivated board members!

If you're interested to give us a hand, contact us directly at:

yan@euracoustics.org

Job Announcements



Aircraft external noise specialist at Airbus. Toulouse, France.



Research Associate in the field of Audio and Media Technologies
at Franhoufer Institute for Integrated Circuits (IIS). Erlangen, Germany.



Acoustic Consultant at Atkins. Birmingham, United Kingdom.



Acoustics Consultant at BWB Consulting. Manchester, United Kingdom.



Acoustic Consultant at Flagship Consulting (agency).
Newcastle, Peterborough, Leeds or Manchester, UK.



Acoustic Engineer at Zound Industries. Stockholm, Sweden.



Postdoctoral fellowship 'Macroplankton – Ecosystem Acoustics'
at Institute of Marine Research (IMR). Bergen, Norway.



Product Manager Acoustics at AVL. Graz, Austria.



Senior Analysis Engineer NVH Powertrain at AVL. Graz, Austria.



Acoustic Engineer at Dynaudio. Skanderborg, Denmark.



Publications



Prediction of limit cycle amplitudes in thermoacoustic engines by means of impedance measurements

This paper deals with the prediction of the frequency and the amplitude of self-sustained oscillations generated in thermoacoustic prime movers, which are compared to measurements. A specially designed, high amplitude, acoustic impedance sensor was developed to perform measurements of the input impedance of a thermoacoustic core, as a function of the heating power supplied to the device, of the frequency, and of the amplitude of acoustic forcing. Those measurements can then be used to predict the spontaneous generation of acoustic oscillations and their saturation up to a steady-state. Those predictions were successful for various acoustic loads connected to the thermoacoustic core. Moreover, the measurements of acoustic impedance as a function of the amplitude of acoustic oscillations are compared to a model based on the linear thermoacoustic theory, and this comparison provides insights into the processes controlling the saturation of acoustic oscillations. The experimental procedure described in this paper can also have practical value, since it provides an empirical way, in principle, to optimize the coupling between the thermoacoustic core and the load so that the potential efficiency of thermoacoustic energy conversion is maximized.

About the author

Raised in Tahiti, Valentin arrived in Le Mans after his A level (French Baccalauréat) thanks to a mistakes on the orientation website. This mishap wasn't so bad since he has now spent 8 years in Le Mans (Bachelor, Master's Degree and PhD).



In 2015, he enrolled on a PhD position with Guillaume Penelet and Gaëlle Poignand, collaborating (via the Le Mans Acoustics HUB) with Penn State University, the historic lab for thermoacoustics. Sadly, the lab in Penn State was closed shortly after... Anyway, Valentin kept going with his PhD that he will defend on friday 18th 2019!

His was one of the final candidate in the french MT180 contest (2018 edition) and that triggered a special interest to popularize his research topic and results. The publication presented this month is the very first paper from his PhD. It describes an innovative experimental approach to estimate limit cycles of thermoacoustic systems. It was also one of the Editor's Picks of JAP.

INFOS

Author: Valentin Zorgnotti *et al.*

Affiliation: LAUM UMR CNRS 6613,
Université du Mans,
Le Mans, France.

Contact: vzorgnotti@univ-lemans.fr



Read the full publication:



Appendices



Le Mans Université is recruiting a Post-doctorant on the acoustics of electromechanical transducers

Context

Noise emission remains one of the main challenges for the development of commercial aviation. For the next generation of aircraft engines to be quieter and more fuel efficient, the performance of acoustics absorbers installed on these engines must be optimised. Traditional acoustic treatments are inefficient at low frequencies. To achieve sufficient absorption, they have to be large, which is often not acceptable in practical applications due to limitations in terms of space and weight. Developing new ways to absorb sound at low frequencies with small treatments is an active area of research.

This post-doctoral position is part of the research project SALUTE that aims to develop novel electro-mechanical treatments specifically for applications in aeronautics. Funded by the European Clean Sky 2 research programme, this is a partnership between the Laboratoire d'Acoustique de l'Université du Mans (LAUM in Le Mans, France) the École Centrale de Lyon, the FEMTO lab and the acoustics lab at the EPFL. The project will involve collaboration with researchers from these research labs as well as participation in national and international scientific conferences. The LAUM is one of the largest research labs in acoustics and hosts a large number of researchers and projects working on acoustic treatments, including several specialised experimental facilities.

Missions

The aim of this post-doctoral project is to develop computational models of the interactions between electro-mechanical actuators and sound fields with flow. These models will help design actuators that can absorb sound efficiently at low frequencies.

Activities	<ul style="list-style-type: none"> • Use existing computational models and develop new models to simulate the behaviour of electro-mechanical transducers (two-dimensional models will first be performed, and then three-dimensional models will also be considered). • Interact with project partners to define the configurations to simulate and analyse the results of the simulations. • Support the design of transducers in preparation for the manufacturing and testing of acoustic liner samples.
-------------------	---

Skills

<ul style="list-style-type: none"> • Applicants should have a PhD degree in acoustics or a related topic. • Experience in computational modelling is highly recommended. • We look for highly motivated applicants with excellent interpersonal, written and oral communication skills. • Fluency in written and spoken English is mandatory. Proficiency in French would be a plus.
--

Risks and obligations

Travels to project meetings.

General information

Expected start date : 7 January 2019

Type of contract : Post-doctoral

Contract length : 18-month, full time

Monthly gross salary : 1797,75 €

Workplace : Laboratoire d'Acoustique de l'Université du Mans – UMR CNRS 6613

Scientific Responsible Name : Gwenael GABARD

Contact

For further enquiries please contact Gwénaél Gabard (gwenael.gabard@univ-lemans.fr, +33 (0)2 4383 3553).

Your application must be sent by email, **no later than 18 December 2018**, to gwenael.gabard@univ-lemans.fr

Your application should include a detailed CV as well as a cover letter in English and French.

Le Mans Université recrute une post-doctorante/un post-doctorant en Acoustique/Electro-acoustique

Le CNRS, l'école doctorale et la spécialité de l'école doctorale

Au sein de l'Université Bretagne-Loire (UBL) qui regroupe 16 université ou instituts sur les régions Bretagne et Pays de la Loire, l'école doctorale (ED) Sciences pour l'Ingénieur (SPI) rassemble 14 thématiques de recherche (Acoustique, Robotique - Mécanique, Productique - Mécanique, Energétique-Thermique-Combustion, Génie Civil, Génie des Procédés et Bioprocédés, Génie Industriel, Procédés de Fabrication, Optimisation de Process et de produits, Génie Mécanique, Mécanique des Milieux Fluides, Mécanique des Solides, des Matériaux, des structures et des surfaces, Architecture et Etudes Urbaines, Génie des Matériaux, Génie électrique).

Le laboratoire de rattachement pour ce contrat post-doctorant est le Laboratoire d'Acoustique de l'Université du Mans. Le LAUM est une Unité Mixte de Recherche de l'Université du Mans et du CNRS (UMR 6613). L'effectif du laboratoire est d'environ 160 personnes (enseignants-chercheurs, chercheurs, IATOS, ITA, doctorants, post doctorants et invités).

Les activités du Laboratoire sont centrées principalement sur l'acoustique « de l'audible » mais le laboratoire a intégré depuis quelques années de nouveaux thèmes de recherche dans le domaine des vibrations et des ultrasons.

Les études portent sur la propagation des ondes dans les fluides (au repos ou en écoulement) et dans les solides (matériaux poreux, granulaires ou composites, structures vibrantes) ainsi que sur les mécanismes de couplage. Elles ont avant tout pour objet de comprendre les phénomènes physiques mis en jeu en privilégiant le développement de modèles analytiques et d'études expérimentales associés aux simulations numériques nécessaires.

Les recherches sont effectuées dans le cadre de trois équipes spécialisées sur des thématiques complémentaires :

- Matériaux
- Transducteurs
- Vibrations, Acoustique Guidée et Écoulement

Contexte

Ce contrat Post-Doctoral financé par le contrat européen SALUTE (Smart Acoustic Lining for UHBR Technologies Engines) fait partie des actions de recherche du LAUM en aéro-acoustique visant à réduire le bruit des avions (MACIA , ARTEM, SALUTE).

Les encadrants seront Stéphane Durand, MCF-HDR et Gwenael Gabard, MCF HDR.

Context :

Noise emission remains one the main challenges for the development of commercial aviation. For the next generation of aircraft engines to be quieter and more fuel efficient, the performance of acoustics absorbers installed on these engines must be optimised. This post-doctoral position is part of the research project SALUTE that aims to develop novel electro-mechanical treatments specifically for applications in aeronautics. Funded by the European Clean Sky 2 research programme, this is a partnership between the Laboratoire d'Acoustique de l'Université du Mans (LAUM in Le Mans, France) the École Centrale de Lyon, the FEMTO lab and the acoustics lab at the EPFL. The project will involve collaboration with researchers from these research labs as well as participation in national and international scientific conferences. The LAUM is one of the largest research labs in acoustics and hosts a large number of researchers and projects working on acoustic treatments, including several specialised experimental facilities.

Missions

Applications are invited for an 18-month post-doctoral position to work on novel acoustic treatments with applications to aircraft engines at the LAUM (Laboratoire d'Acoustique de l'Université du Mans).

Traditional acoustic treatments are inefficient at low frequencies. To achieve sufficient absorption, they have to be large, which is often not acceptable in practical applications due to limitations in terms of space and weight. Developing new ways to absorb sound at low frequencies with small treatments is an active area of research. The aim of this post-doctoral project is to develop electro-mechanical actuators that can absorb sound efficiently at low frequencies. In a first stage, these MEMS actuators will be designed to operate in a flow acoustics rig. In a second stage, the acoustic treatment will be optimised for a small-scale rig of a turbofan engine.

Profil recherché

Formation :

Une formation solide en acoustique et vibrations ainsi qu'une formation dans le domaine des capteurs et transducteurs sont demandées. Des connaissances en électronique et automatique seront un plus. Une formation en mécanique sera également nécessaire pour la conception et le suivi de fabrication des pièces et dispositifs mécaniques nécessaires au projet.

Compétences :

- Pour le développement des modèles la maîtrise des modèles à constantes localisées, des modèles par éléments finis (COMSOL, ...) et des bases de programmation en python sont demandées.
- Une certification d'un niveau B2 en anglais est requise pour la communication avec les autres partenaires dans le cadre du projet (contrat européen).
- Qualité rédactionnelle, capacité à formuler et conduire un projet scientifique
- Aptitude à travailler en équipe tant au sein du laboratoire qu'au sein du projet SALUTE.
- Travailler de manière autonome tout en rendant compte régulièrement de l'avancée de ses travaux, par exemple par le biais de rapports réguliers et/ou de présentations.
- Capacités à rédiger dans un français correct et exempt de fautes d'orthographe et de grammaire.
- Capacités organisationnelles attendues pour la gestion du déroulement du contrat, la fourniture des rapports et la planification des différentes actions de recherche, au sein du laboratoire et avec les autres acteurs du projet SALUTE.
- Aptitude à communiquer au sein de l'équipe du laboratoire (interaction avec les personnels techniques et administratifs, avec les autres doctorants, les chercheurs et les enseignants-chercheurs, mais également avec les collègues des autres laboratoires) et au sein du groupe des membres du projet SALUTE. Des communications de type vulgarisation vers le public sont également à prévoir (journées portes ouvertes, nuit des chercheurs, ...).
- Esprit critique et capacités d'analyse et de synthèse afin d'aller à l'essentiel et de déterminer rapidement les pistes de recherche à suivre. Elle/Il saura apprendre afin de développer de nouvelles compétences si besoin.

Profile :

- *Applicants should have a PhD degree in (electro)-acoustics, preferably with a multi-disciplinary engineering background.*
- *Experience in micro-manufacturing and/or sensor design is highly recommended.*
- *We look for highly motivated applicants with excellent interpersonal, written and oral communication skills.*
- *Knowledge of lumped element modelling and finite-element modelling would be beneficial.*

Contraintes et risques

Dans le cadre de ce contrat, des déplacements aux réunions du programme ARTEM seront à prévoir (en France et/ou à l'étranger) ainsi que des déplacements sur les sites des moyens d'essai (Lyon) et des déplacements pour les congrès.

La personne recrutée devra se conformer aux règlements intérieurs du LAUM et de l'ENSIM. En effet, le poste de travail sera localisé à l'école d'ingénieurs ENSIM au sein d'un groupe de doctorants – post-doctorants travaillant sur des thématiques proches. Le cas échéant la personne recrutée pourra être amenée à signer des clauses de confidentialité.

Informations générales

Date de début du contrat : 7 janvier 2019

Type de contrat : Post-doctoral

Durée du contrat : 18 mois à temps complet

Salaire mensuel brut : 1797,75 €

Localisation du poste de travail : ENSIM

Affectation : Laboratoire d'Acoustique de l'Université du Mans (LAUM)

Contact

For further enquiries please contact Stéphane Durand (stephane.durand@univ-lemans.fr, +33 (0)2 4383 3954).

Les candidatures doivent être envoyées par mail, au **plus tard le 18 décembre 2018** à stephane.durand@univ-lemans.fr

Les candidatures devront inclure un CV détaillé ; au moins deux références (personnes susceptibles d'être contactées) ; une lettre de motivation d'une page ; un résumé d'une page du mémoire de master ou du mémoire de stage ingénieur; les notes de Master 1 et 2 ou d'école d'ingénieur).