

## 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!

### News [page 4](#)



This month we bring some information about the e-Forum Acusticum 2020.

### Job announcements [page 5](#)



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

### Publications [page 6](#)



This month discover a publication from the Technical University of Munich.

## Board's Highlights



NEWS

The conference e-FA 2020 is taking place this month, and we are organizing some activities. Get to know more about them!

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PUBLI

This month read a publication on an acoustic metamaterial capsule for reduction of stage machinery noise.

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## Upcoming Events



### December 2020

**2<sup>nd</sup> - 4<sup>th</sup> — ICVPB 2020** — International Conference on Voice Physiology and Biomechanics. Grenoble, France.



**7<sup>th</sup> - 11<sup>th</sup> — e-FA 2020** — e-Forum Acusticum 2020. Online.



Did we miss a date ?

**Behind the YAN there are 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](mailto:yan@euracoustics.org)

## Upcoming Deadlines



### December 2020

**1<sup>st</sup> — ICSV 2020** — International Congress on Sound and Vibration. Prague, Czech Republic. [Abstract submission](#)



**15<sup>th</sup> — CSNDD 2021** — Conference on Structural Nonlinear Dynamics and Diagnosis. Casablanca, Morocco. [Abstract submission](#)



### January 2021

**10<sup>th</sup> — ISTU 2020** — 20<sup>th</sup> Annual International Symposium for Therapeutic Ultrasound. Gyeongju, Korea. [Abstract submission](#)



### February 2021

**1<sup>st</sup> — SAPEM 2020+1** — Symposium on the Acoustics of Poro-Elastic Materials. Online. [Abstract submission](#)



**1<sup>st</sup> — BNAM 2021** — Baltic-Nordic Acoustics Meeting 2021. Oslo, Norway. [Abstract submission](#)



## News



### e-Forum Acusticum 2020

As we already announce in our newsletter from October, due to the instability of the health situation, the organizers of the conference Forum Acusticum 2020 have decided to switch FA2020 to a e-Forum.

The event will take place from the 7th to the 11th of December. The technical program covers most of the topics related to Acoustics, from physical acoustics to sound perception (of humans and animals), including industrial applications. 780 oral presentations will be given in 100 scientific sessions, and 75 posters will be presented.

A virtual exhibition hall will also offer you the best experience and products information from the sponsors.

The new registration fees have been updated to this new organization, so you are still able to register as attendees to the conference and enjoy the online presentations.

If you want to find updated information about what's going on in this topic, we encourage you to visit the website of the conference:

<https://fa2020.universite-lyon.fr>

### YAN activities during e-FA2020

The YAN, together with the UK Acousticians Network (UKAN), is planning some activities to get to know the young acousticians attending the conference. Some of the activities will take place in our Discord server, and we are preparing some other nice surprises.

Also, the reduced attendance fee for students is still available... only 50 €!

Stay tuned for new updates in the website:

<https://euracoustics.org/yan/efa2020>



## Job Announcements



**Acoustic Consultant.** Acoustical Investigation & Research Organisation Ltd. (AIRO).  
United Kingdom.



**Principal / Senior Acoustic Consultant.** HA Acoustics. East Anglia and London  
(England).



**Consulting Engineers for Noise and Vibration Protection** (info in German). Kurz und  
Fischer GmbH. Winnenden (Germany)..



**Audio Developer** (info in German). Müller-BBM Active Sound Technology GmbH.  
Planegg bei München (Germany).



**Acoustician** (info in German). Müller-BBM Active Sound Technology GmbH.  
Planegg bei München (Germany).



**Audio DSP Engineer.** Devialet. Paris, France.



**Senior Algorithm Designer, Audio & Acoustics.** GOODIX Technologies.  
Leuven (Belgium).



**Acoustical Engineer.** NonStop Consulting (Recruitment Agency). Province of Linburg,  
Belgium.



**PhD Fellowship in audio signal processing for hearing assistive devices.** Oticon and  
Aalborg University. Smorum, Denmark.



**CAE Engineer – Structural Analysis, Tribology & Acoustics.** Scania Group. Sodertalje,  
Sweden.



## Publications



### Acoustic metamaterial capsule for reduction of stage machinery noise

Noise mitigation of stage machinery can be quite demanding and requires innovative solutions. In this work, an acoustic metamaterial capsule is proposed to reduce the noise emission of several stage machinery drive trains, while still allowing the ventilation required for cooling. The metamaterial capsule consists of c-shape meta-atoms, which have a simple structure that facilitates manufacturing. Two different metamaterial capsules are designed, simulated, manufactured, and experimentally validated that utilize an ultra-sparse and air-permeable reflective meta-grating. Both designs demonstrate transmission loss peaks that effectively suppress gear mesh noise or other narrow band noise sources. The ventilation by natural convection was numerically verified, and was shown to give adequate cooling, whereas a conventional sound capsule would lead to overheating. The noise spectra of three common stage machinery drive trains are numerically modelled, enabling one to design meta-gratings and determine their noise suppression performance. The results fulfill the stringent stage machinery noise limits, highlighting the benefit of using metamaterial capsules of simple c-shape structure.

#### INFOS

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#### About the author

Anton Melnikov received the Dipl.-Ing. degree in Mechanical Engineering at the Technical University of Dresden in 2012 and the M.Eng. degree in Computational Applied Mechanics at the University of Applied Sciences Ingolstadt in 2016. Until 2020, he has been working as guest scientist at Technical University of Munich on his PhD project about noise control and acoustic metamaterials. His research interests are in the numerical modelling of multi-domain problems. Currently, he is a research associate at Fraunhofer Institute for Photonic Microsystems.

