

Young Acousticians Network Newsletter #112 June 2022



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Newsletter's Summary

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

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Find out more about the recent EUROREGIO/BNAM conference and our open board meeting!

Job announcements page 6

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

Publications page 7

This month discover a publication about head related transfer function acquisition in modern systems.

Board's Highlights



Exciting stuff about our recent meeting and future plans...! Check out our open board meeting highlight!

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August 2022

21st - 24th — Inter-Noise 2022 — 51st International Congress and Exposition on Noise Control Engineering. Glasgow, Scotland.

















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Upcoming Deadlines

June 2022

- 16th ISMA 2022 International Conference on Noise and Vibration Engineering. Leuven, Belgium. Paper submission.
- 16th ISon Interactive Sonification Workshop 2022. Delmhorst, Germany. Paper submission.
- 20th TECNIACUSTICA 2022 53rd Spanish Congress on Acoustics and XII Iberian Congress on Acoustics. Alicante, Spain. Abstract submission.
- 22nd MPSVA 2022 International Conference on Modern Practice in Vibration Stress and Vibration Analysis. Oxford, England. Paper submission.

<u>July 2022</u>

- 1st ICNV 2022 27th International Conference, Noise and Vibration. Niš, Romenia. Paper submission.
- 15th OUV 2022 Optics + Ultrasound V. London, UK. Abstract submission.
- 22nd IWAENC 2022 17th International Workshop on Acoustic Signal Enhancement. Bamberg, Germany. Paper submission.

August 2022

15th — ICA 2022 — 24th International Congress on Acoustics. Gyeongiu, Korea. Paper submission.



















News

EAA Best Paper & Presentation Awards for Young Researchers

EUROREGIO/BNAM gave us the winner of the EAA best paper & presentation awards for young researchers, which was Michiel Geluykens with his work entitled: "Assessment of the proposed changes regarding heavy vehicles in the statistical pass-by draft standard ISO/DIS 11819-1 (2021)". Congratulations!

Michiel Geluykens is a PhD candidate at the Energy and Materials in Infrastructure and Buildings research group affiliated to the Faculty of Applied Engineering at the University of Antwerp. He was introduced to acoustics during his Master's in Civil Engineering Technology, where he studied a method for assessing the impact of pavements on road traffic noise. He presented his work at the EUROREGIO/BNAM 2022 conference, where it won the best paper award. In his PhD he hopes to achieve airpurifying pavements with an additional benefit of improved durability for porous asphalt. This could enable the widespread use of this material as the most effective road traffic noise mitigation measure.





News



Open meeting for non-board members

We presented our future plans at the YAN open board meeting last month, which puts together other non-board members (such as National Societies representatives) which contribute to the YAN! Our focus points will be to further strengthen collaboration and communication with national societies and individuals across platforms and to find new exciting ways of doing so. Watch this space everyone!

EUROREGIO/BNAM 2022

Last month, from 9th to 11th May, Aalborg hosted Euroregio/BNAM2022, a merged event organised by the combined efforts of the Nordic Acoustic Association and the European Acoustics Association. YAN was present at the event too, and we had the opportunity to meet some fellow young acousticians from the Danish Sound Cluster and other (Nordic) research groups.

Forum Acusticum 2023

The 10th convention of the EAA, Forum Acusticum 2023, will be hosted by Politecnico di Torino (Turin) from 11th to 15th September 2023. The site has just been released, which you can find here: https://www.fa2023.org. The site will report updated news on the technical program and the summer school, which will be held from 8th to 10th September 2023. Newsletter #112 June 2022

Job Announcements

Post Doc Position - Psychoacoustics/Architectural Auditory Environments. Chalmers University of Technology. Gothenburg, Sweden.

Post Doc Position - Localization and Identification of Moving Noise Sources. Austrian Academy of Sciences. Vienna, Austria.

PhD Position - Audio Signal Processing. KU Leuven. Leuven, Belgium.

PhD Position - Underwater Acoustic Linings. Institut d'électronique, de microélectronique et de nanotechnologie. Lille, France.

Trainee in Acoustics and Virtual Reality. Arup. Madrid, Spain.

Research Engineer in Audio and Acoustics. Huawei Research. Munich, Germany.

PhD Position - Lightweight Acoustic Meta-Partitions for Low-Frequency Noise Control. University of Southampton. Southampton, England.

Research Fellow - Room Acoustic Modelling. University of Surrey. Guildford, England.

























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Publications

Modern Acquisition of Personalised Head-Related Transfer Functions: An Overview

Head-related transfer functions (HRTFs) describe the spatial filtering of acoustic signals by a listener's anatomy. With the increase of computational power, HRTFs are nowadays more and more used for the spatialised headphone playback of sounds. thus 3D enabling personalised binaural audio playback. HRTFs are traditionally measured acoustically and various measurement systems have been set up worldwide.

Despite the trend to develop more user-friendly systems and as an alternative to the most expensive and rather elaborate measurements, HRTFs can also be numerically calculated, provided an accurate representation of the 3D geometry of head and ears exists. While under optimal conditions, it is possible to generate said 3D geometries even from 2D photos of a listener, the geometry acquisition is still a subject of research. In this chapter, we review the requirements and state-of-the-art methods for obtaining personalised HRTFs, focusing on the recent advances in numerical HRTF calculation.

About the Author

Katharina Pollack studied electrical engineering audio engineering at the Technical University and the University of Music and Performing Arts in Graz and is currently



doing her PhD in the field of spatial hearing at the Acoustics Research Institute in Vienna. Her main research interest is making personalised head-related transfer functions more accessible to the public, with the focus on parametric and statistic approaches for pinna shape deformation. She is an active member of the Austrian Acoustics Association, the Austrian section of the Audio Engineering Society and the Austrian section of the Institute of Electronics and Electrical Engineering.

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Publications



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