Young Acousticians Network Newsletter #137 September 2024

Newsletter's Summary

Agenda

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

News

This month we highlight the Danish Sound Day 2024.

Job announcements

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

Publications

This month, find a publication by Becky Heath, "Spatial ecosystem monitoring with a Multichannel Acoustic Autonomous Recording Unit (MAAR)".

Upcoming Events

October 2024

02nd - IEEE International Workshop on Networked Immersive Audio
Erlangen, Germany

08th - 10th **AES Show 2024**
New York, US

November 2024

04th - 08th **ASSA2024** Autumn School Series in Acoustics 2024
Eindhoven, Netherlands

06th - 08th **Acoustics 2024** Acoustics in the Sun
Gold Coast, Australia

12th - 14th **Reproduced Sound 2024** 40th Anniversary Conference and Exhibition
Bristol, United Kingdom

December 2024

02nd - 04th **FIA 2024** 13th Iberoamerican Congress on Acoustics
Santiago, Chile

11th - 12th **ISAV2024** 14th International Conference on Acoustics and Vibration
Karaj, Iran

Upcoming Deadlines

October 2024

25th - **Reproduced Sound 2024**
40th Anniversary Conference and Exhibition. Bristol, United Kingdom. Paper submission

November 2024

01st - **DAS|DAGA 2025**
14th International Conference on Acoustics and Vibration. Copenhagen, Denmark. Abstract submission

25th - **FAN 2025**
International Conference on fan noise, aerodynamics, applications & systems. Juan-Les-Pins, France. Abstract submission

30th - **NOVEM 2025**
Noise and Vibration Emerging Methods (NOVEM2025). Garmisch-Partenkirchen, Germany . Noise and Vibration Emerging Methods. Garmisch-Partenkirchen, Germany . Abstract submission

December 2024

31st - **USS2025**
Urban Sound Symposium 2025. Zürich, Switzerland. Abstract submission

News

jDEGA new discord server

Junge DEGA (Germany YAN) is now introducing their very own discord server which offers the opportunity to organize groups for specific activities within the junge DEGA network. Anyone who would like to network with the junge DEGA or organize events, is welcome to join: https://discord.gg/TPedtBCU7V

Danish Sound Day 2024

Don’t miss out on Danish Sound Day conference! On November 5th the Danish Sound Cluster is bringing together researchers and companies from all sides of acoustics. This year’s theme, Sound and Acoustics in Architecture and Room Design, promises to bring insightful discussions and innovative ideas on how sound shapes our built environment.
You can read the full programme here: https://danishsoundcluster.dk/en/danish-sound-day-2024/

Reproduce Sound 2024 – Analogue synth workshop

If you are participating to this years Reproduced Sound conference, make sure you don’t miss the Tuesday workshop where you can explore the iconic sounds of old and new synthesizers! You can delve into learning about the most iconic sounds of synths or go for listening and comparing different types of synths, even participate in taking fundamental measurements. Definitely a must!

Get Ready for Audio Fun at AES Show 2024: Explore, Learn, and Network!

Get ready for an epic time at the AES Show 2024! From October 8-10 in New York City, this event is where audio pros and enthusiasts come together to explore the latest in sound technology. Imagine hands-on demos, interactive workshops, and networking with top industry leaders. Whether you're into recording, live sound, or audio innovation, this show has something cool for everyone. Plus, it’s happening alongside the NAB Show, giving you double the excitement in one go. Don't miss this awesome chance to geek out on all things audio!
Check the link: https://aesshow.com/

Let's get loud!

Sound off! Share your latest acoustics news & events

News flash! Have an acoustics story to share? Please tell us! eaa.yan@euracoustics.org

Share your acoustics projects, discoveries, thoughts, and insights on the latest in acoustics 🔊😎

Job Announcements

Acoustical Expert
ROCKWOOL Group
Hedehusene, Denmark.

PhD in Acoustics
Holophonix
Paris, France

Research Associate – Audio and Media Technologies
Fraunhofer IIS. Erlangen, Germany.

Postdoctoral Researcher – Machine Learning for Signal Processing
Fraunhofer IIS. Erlangen, Germany.

Acoustic Consultant/Engineer
Temple. London, UK.

Acoustic Consultant
HA Acoustics. Sawbridgeworth/ Saltash, UK.

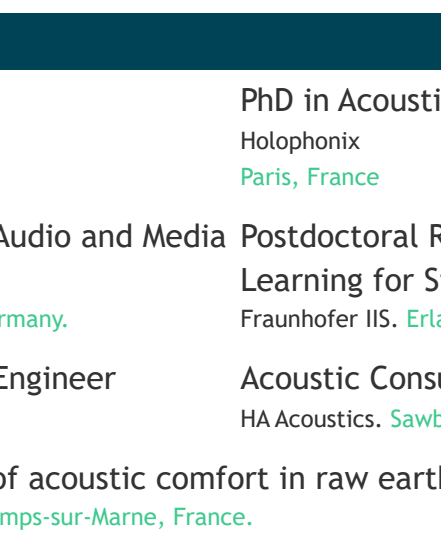
Post-Doc: perception of acoustic comfort in raw earth buildings
Gustave Eiffel University. Champs-sur-Marne, France.

Publications

Spatial ecosystem monitoring with a Multichannel Acoustic Autonomous Recording Unit (MAARU)

Multi-microphone recording adds spatial information to recorded audio with emerging applications in ecosystem monitoring. Specifically placing sounds in space can improve animal count accuracy, locate illegal activity like logging and poaching, track animals to monitor behaviour and habitat use and allow for ‘beamforming’ to amplify sounds from target directions for downstream classification. Studies have shown many advantages of spatial acoustics, but uptake remains limited as the equipment is often expensive, complicated, inaccessible or only suitable for short-term deployments. With an emphasis on enhanced uptake and usability, we present a low-cost, open-source, six-channel recorder built entirely from commercially available components which can be integrated into a solar-powered, online system. The MAARU (Multichannel Acoustic Autonomous Recording Unit) works as an independent node in long-term autonomous, passive and/or short-term deployments. Here, we introduce MAARU's hardware and software and present the results of lab and field tests investigating the device's durability and usability. MAARU records multichannel audio with similar costs and power demands to equivalent omnidirectional recorders. MAARU devices have been deployed in the United Kingdom and Brazil, where we have shown MAARUs can accurately localise pure tones up to 6 kHz and bird calls as far as 8 m away (±10° range, 100% and >60% of signals, respectively). Louder calls may have even further detection radii. We also show how beamforming can be used with MAARUs to improve species ID confidence scores. MAARU is an accessible, low-cost option for those looking to explore spatial acoustics accurately and easily with a single device, and without the formidable expenses and processing complications associated with establishing arrays. Ultimately, the added directional element of the multichannel recording provided by MAARU allows for enhanced recording of sonic environments, further enabling a potential step change in the uptake of spatial acoustics in the wider field.

About the Author



Becky Heath is a postdoctoral researcher in the University of Cambridge’s Zoology Museum where she currently works on enhancing sustainability in industrial and smallholder oil palm plantations in Indonesian oil palm. She completed her PhD in Design Engineering at Imperial College London’s Dyson Schools of Design Engineering where she primarily worked on developing sensors for ecosystem monitoring. MAARU (Multichannel Acoustic Autonomous Recording Unit) was a project of her PhD which is still being used in development and long-term field deployments in the UK and beyond.

Contact us: eaa.yan@euracoustics.org