

## 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](#)



Check the plans for the ICNVE and give your input for a future idea we're planning for YOU!

### 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 about the decomposition of impulse responses for psychoacoustics purposes, have a look!

## Board's Highlights



NEWS

This month we are highlighting some upcoming events as well as some possible ideas for our community... Have a look!

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PUBLI

This month read a publication from a partnership between Chalmers University of Technology and Meta!

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## Upcoming Events



### August 2022

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



### September 2022

**5<sup>th</sup> - 8<sup>th</sup> — IWAENC 2022** — 17<sup>th</sup> International Workshop on Acoustic Signal Enhancement. **Glasgow, Scotland.**



**11<sup>th</sup> - 14<sup>th</sup> — Vienna Talk 2020/22** — 4<sup>th</sup> Vienna Talk on Musical Acoustics. **Vienna, Austria.**



**12<sup>th</sup> - 13<sup>th</sup> — OUV 2022** — Optics + Ultrasound V. **London, England.**



**12<sup>th</sup> - 14<sup>th</sup> — ISMA 2022** — International Conference on Noise and Vibration Engineering. **Leuven, Belgium.**



**22<sup>nd</sup> - 23<sup>rd</sup> — ISon 2022** — Interactive Sonification Workshop 2022. **Delmenhorst, Germany.**



### October 2022

**19<sup>th</sup> - 21<sup>st</sup> — IWAENC 2022** — 27<sup>th</sup> International Conference "Noise and Vibration". **Niš, Romania.**



**19<sup>th</sup> - 21<sup>st</sup> — SAM 2022** — Symposium on Acoustics Metamaterials #3. **Nîmes, France.**



**24<sup>th</sup> - 28<sup>th</sup> — ICA 2022** — 24<sup>th</sup> International Congress on Acoustics. **Gyeongju, Korea.**



## Upcoming Deadlines



### August 2022

**15<sup>th</sup> — ICA 2022** — 24<sup>th</sup> International Congress on Acoustics. Gyeongju, Korea. **Paper submission.**



**31<sup>st</sup> — SAM 2022** — Symposium on Acoustic Metamaterials #3. Nîmes, France. **Abstract submission.**



### September 2022

**22<sup>nd</sup> — TECNIACUSTICA 2022** — 53<sup>rd</sup> Spanish Congress on Acoustics and XII Iberian Congress on Acoustics. Elche-Alicante, Spain. **Paper submission.**



Announce here !

Your company opened a  
position related to acoustics ?

Announce it here and reach young acousticians all over Europe!  
Contact us through:

[yan@euracoustics.org](mailto:yan@euracoustics.org)

## News



## International Conference on Noise and Vibration Engineering

The 30<sup>th</sup> International Conference on Noise and Vibration Engineering will be organised from the 12<sup>th</sup> to the 14<sup>th</sup> September 2022 in Leuven, Belgium. The registration is still open! The conference provides a forum for engineers, researchers and other professionals active in the field of modelling, analysing, testing and improving the noise and vibration characteristics of mechanical and mechatronic systems and civil structures. The Belgian YAN will be hosting an additional poster session on the 14<sup>th</sup> at noon. This will be tied to a drink in the evening. Check out all the info here:

<https://www.isma-isaac.be/>

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## YAN Hackathon poll

The Young Acousticians Network is planning to organise an online event in which young acousticians from all over Europe are given 48 hours to collaborate in teams to find solutions to real-world challenges. The hackathon will not just be a competition with a prize for the best team, it will be a social event where people from all backgrounds can share their ideas and expertise. To see how much interest there is for such an event we have made a short (1 minute) poll, it would help us a lot if you could spare a moment to give us your input!

<https://forms.gle/qSMWkxvhg6FFEhbMA>

## Job Announcements



**PhD Position - Characterizing Listener Behaviour.** Technical University of Denmark.  
**Kongens Lyngby, Denmark.**



**PhD Position - Bio-based Porous Acoustic Materials.** Aalto University. **Otaniemi, Finland.**



**PhD Position - Phonetics.** Austrian Academy of Sciences. **Vienna, Austria.**



**Post Doc Position - Artificial Intelligence for Enriching Ultrasonic Simulations.** Atomic and Alternative Energies Commission. **Yvette, France.**



**Engineer/Physicist in Vehicle Acoustics.** GTA - Society for Technical Acoustics.  
**Brunswick, Germany.**



**PhD Position - Femtosecond Photoacoustic Imaging Through Engineered Acoustic Metamaterials.** PIMM Laboratory. **Paris, France.**



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## Publications



### Direct and Residual Subspace Decomposition of Spatial Room Impulse Responses

Psychoacoustic experiments have shown that directional properties of, in particular, the direct sound, salient reflections, and the late reverberation of an acoustic room response can have a distinct influence on the auditory perception of a given room.

Spatial room impulse responses (SRIRs) capture those properties and thus are used for direction-dependent room acoustic analysis and virtual acoustic rendering.

This work proposes a subspace method that decomposes SRIRs into a direct part, which comprises the direct sound and the salient reflections, and a residual, to facilitate enhanced analysis and rendering methods by providing individual access to these components.

The proposed method is based on the generalized singular value decomposition and interprets the residual as noise that is to be separated from the other components of the reverberation. It utilizes a noise estimate to identify large generalized singular values, which are then attributed to the direct part. By advancing from the end of the SRIR toward the beginning while iteratively updating the noise estimate, the method is able to work

with anisotropic and slowly time-varying reverberant sound fields. The proposed method does not require direction-of-arrival estimation of reflections and shows an improved separation of the direct part from the residual compared to an existing approach.

A case study with measured SRIRs suggests a high robustness of the method under different acoustic conditions.

A reference implementation is provided.

INFOS

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