# Young Acousticians Network
## Newsletter #111 May 2022

**EAA**
European Acoustics Association

## Newsletter's Summary

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

### News
Find out more about the recent CFA conference, new YAN collaborations and the upcoming EUROREGIO/BNAM!

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

### Publications
This month discover a publication about a new model for predicting wind turbine noise annoyance!

## Board's Highlights

**NEWS**
Exciting news about a new collaboration between the YAN and AES Germany...! Check out our CFA highlight!

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**PUBLI**
This month read a publication from the Delft University of Technology (Netherlands) and the EMPA (Switzerland).

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## Upcoming Events

### May 2022

9$^{th}$ - 11$^{th}$ — **EUROREGIO/BNAM 2022 —** EUROREGIO/BNAM 2022. **Aalborg, Denmark.**

18$^{th}$ - 20$^{th}$ — **12$^{th}$ IMA —** International Conference on Mathematics in Signal Processing. **Birmingham, England.**

25$^{th}$ - 27$^{th}$ — **48$^{th}$ AIA 2022 —** Convegno Nazionale Dell'Associazione Italiana di Acustica. **Matera, Italy.**

26$^{th}$ - 27$^{th}$ — **Aural Diversity Network Workshop 3—** Acoustics and Psychoacoustics. **Online.**

### June 2022

6$^{th}$ - 7$^{th}$ — **IFA 2022 —** International Symposium on Fluid Acoustics. **Sopot, Poland.**

20$^{th}$ - 23$^{rd}$ — **ICUA 2022 —** International Conference on Underwater Acoustics. **Southampton, England.**

### July 2022

4$^{th}$ - 6$^{th}$ — **WMVC 2022 —** 10$^{th}$ International Conference on Wave Mechanics and Vibrations. **Lisbon, Portugal.**

6$^{th}$ - 8$^{th}$ — **AAT —** The Acoustics of Ancient Theatres. **Verona, Italy**
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12$^{th}$ - 14$^{th}$ — **MPSVA 2022 —** International Conference on Modern Practice in Stress and Vibration Analysis. **Oxford, England.**

13$^{th}$ - 15$^{th}$ — **IMA —** Maths in Music Conference. **London, England.**

## Upcoming Deadlines

### May 2022

**2nd — IWAENC 2022 —** 17th International Workshop on Acoustic Signal Enhancement. Bamberg, Germany. **Paper submission.**

**15th — Vienna Talk 2020/22 —** 4th Vienna Talk on Music Acoustics. Vienna, Austria. **Paper submission.**

**18th — MPSVA 2022 —** International Conference on Modern Practice in Vibration Stress and Vibration Analysis. Oxford, England. **Abstract submission.**

**20th — Aural Diversity Network Workshop 3 —** Acoustics and Psychoacoustics. Online. **Paper submission.**

### June 2022

**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.**

### July 2022

**1st — ICNV 2022 —** 27th International Conference, Noise and Vibration. Niš, Romenia. **Paper submission.**
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**22nd — IWAENC 2022 —** 17th International Workshop on Acoustic Signal Enhancement. Bamberg, Germany. **Paper submission.**

**22nd — ICUA 2022 —** International Conference on Underwater Acoustics. Southampton, England. **Paper submission.**

## News

### CFA 2022

Last month, the 16th French acoustics congress of the French Acoustic Society (SFA) was held. This edition had a special focus on young acousticians by organising an Acoustics Professions session and a jobs forum which promoted direct contact between students and the companies present at the congress. Moreover, it included the official launch of the Fr-YAN, the new local representative group for the YAN in France!

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### AES Germany collaboration

AES Germany started in January 2022 as the North, South and Central German sections united, and is an official section of the Audio Engineering Society. We will be working together to build an even stronger community for researchers and professionals in the field of audio and acoustics. Check out their social media pages below!

*Facebook*          *Instagram*          *Twitter*          *LinkedIn*

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### EUROREGIO/BNAM is coming up!

Don't forget the YAN is hosting an event at EUROREGIO/BNAM on the 9th May at 19:00h! Meet us at ***Jens Bangs Stenhus*** for some tapas and drinks!
Check out the event page ***here***.

# Job Announcements

**Post Doc Position - Optics and Acoustics.** Universitat de Barcelona. **Barcelona, Spain.**

**Post Doc Position - Machine Learning Challenges, Music and Hearing Loss.** University of Salford. **Manchester, England.**

**PhD Position - Ultrasonics.** University of Southampton. **Southampton, England.**

**PhD Position - Room Acoustic Modelling for AR.** University of Surrey. **Surrey, England.**

**PhD Position - Acoustophoresis.** University of Bristol. **Bristol, England.**

**Engineers (Signal Processing, Acoustics and Noise Protections).** Muller BBM Group. **Planegg, Germany.**

**PhD Position - MEMS Design and Fabrication.** Cranfield University. **Cranfield, England.**

**PhD Position - Underwater Acoustics.** Université Le Havre Normandie. **Le Havre, France.**

**PhD Position - Acoustic Comfort and HO Ambisonics.** Université Le Havre Normandie. **Izola, Slovenia.**

## Publications

### Psychoacoustic Model for Predicting Wind Turbine Noise Annoyance

Wind turbines are a promising source of sustainable energy but their noise emissions are an important cause of annoyance and, thus, a critical factor for their public acceptance. Wind turbine noise exposure is typically assessed using conventional time-averaged metrics, such as the equivalent continuous A-weighted sound pressure level. However, literature suggests that these metrics do not fully capture the sound properties responsible for the perceived annoyance and that, therefore, it is questionable to assess wind turbine noise and its abatement strategies using only such metrics.

This study presents a novel psychoacoustic model for predicting wind turbine noise annoyance that combines the perception-based sound quality metrics loudness, sharpness, tonality, roughness, and fluctuation strength. To establish the psychoacoustic model, the synthetic sound signals of two different wind turbines equipped with four state-of-the-art noise reduction add-ons (two types of trailing-edge serrations and two types of trailing-edge permeable materials inserts) were studied. Using a parametric wind turbine noise generator, the simulated sound signals were auralized at different observer positions and their noise annoyance was evaluated in a laboratory listening experiment with 16 subjects. The psychoacoustic annoyance model proposed here provides a very close agreement with the results of the listening experiment.

## Publications

### About the Author

Roberto Merino-Martinez is an assistant professor at the Aircraft Noise and Climate Effects section of the faculty of Aerospace Engineering at Delft University of Technology, where he also obtained his PhD and worked as a postdoctoral researcher in the fields of acoustic imaging with microphone arrays, aircraft noise, wind turbine noise, aeroacoustics. He is also a part-time consultant in aeroacoustics for the Dutch company Peutz bv. Recently he has also been working in the field of psychoacoustics and noise reduction measures for aircraft and wind turbines.

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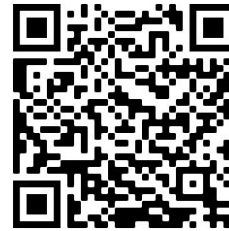
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