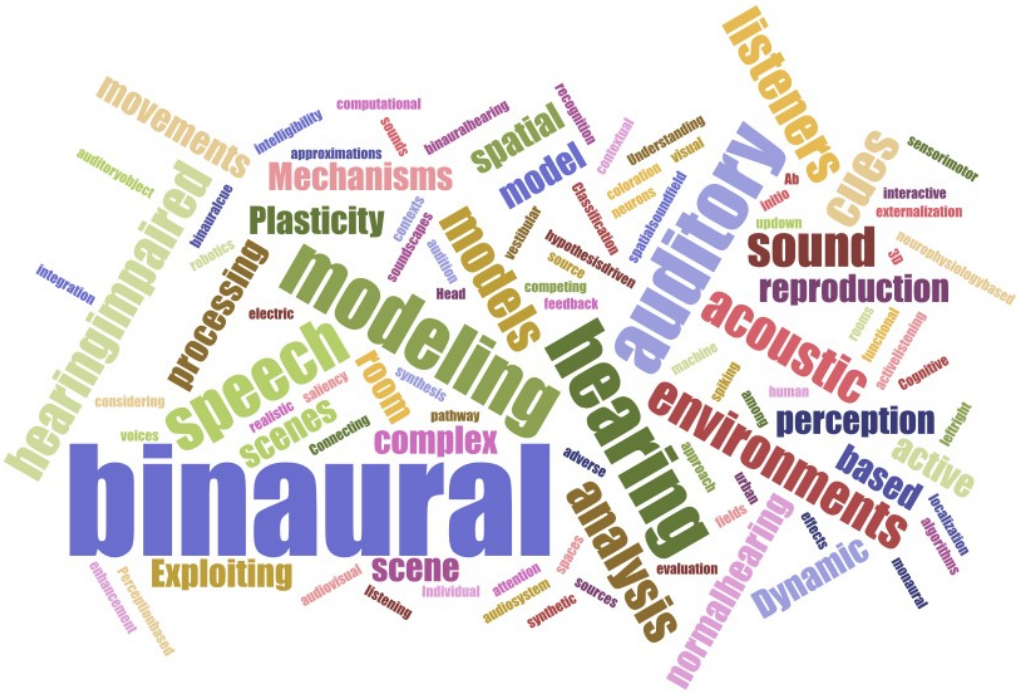
Call for papers

Special issue on the topic of

Spatial and binaural hearing:
From neural processes to applications

in *Acta Acustica*
(Journal of the European Acoustics Association)



Guest editors

Piotr Majdak, Austrian Academy of Sciences, Vienna, Austria
Norbert Kopčo, P. J. Šafárik Univiversity, Košice, Slovakia
Mathieu Lavandier, ENTPE, Lyon, France

Background

Human listeners infer spatial representations of their environment in order to interact with it and benefit from binaural processes when aiming to understand speech in complex settings. Models are helping us in trying to understand the functional complexity of the auditory system and need to consider subcortical and cortical auditory processes as an integral part of a larger system. Applications in virtual and augmented reality rely on these models, enabling realistic binaural sound reproduction.

Scope of the special issue

In this special issue, we present a collection of recent advances in experiments, models, and applications with a particular focus on spatial and binaural hearing. The implementation of computational auditory models can be linked with the auditory modeling toolbox (AMT), setting a baseline of reproducible results for future research.

Contacts

- piotr.majdak@oeaw.ac.at
- norbert.kopco@upjs.sk
- mathieu.lavandier@entpe.fr

Submissions

All kinds of relevant papers will be considered and reviewed by a distinguished team of international experts: full length original research articles, reviews, letters, and technical briefs that address computational and/or conceptual models of the normal or impaired auditory system. Relevant topics of spatial hearing include but are not limited to: binaural processing and neural encoding, perceptual inference and neural decoding, selective attention, multimodal integration as well as advances in applications such as binaural audio rendering and hearing aids.

The deadline for the submissions is **30. November 2025**. The manuscripts will be handled on rolling basis. The submissions can be in Latex or MS Word.

Abstract submission is optional and will allow you to receive early feedback from the Guest Editors on whether your article is in the scope of the special issue. Please email your abstracts directly to the Guest Editors at the email addresses above.

Manuscripts can be submitted online via the submission and peer-review site of Acta Acustica. Register choosing the title of the special issue “Spatial and binaural hearing: From neural processes to applications”. Please find further instructions for authors at https://acta-acustica.edpsciences.org/author-information/instructions-for-authors.

Note that starting with 1st January 2025, Acta Acustica is a fully **Diamond Open Access** journal: The journal is free for readers and the authors, i.e., the authors do not have to pay any article processing charges to publish in it.