2025 IEEE Workshop on Applications of Signal Processing to Audio and Acoustics

# CALL FOR PAPERS WASPAA 2025

Granlibakken Tahoe, Tahoe City, CA Oct. 12–15, 2025 http://waspaa.com

The 2025 IEEE Workshop on Applications of Signal Processing to Audio and Acoustics (WASPAA 2025) will be held at the Granlibakken Tahoe in Tahoe City, California, and is supported by the Audio and Acoustic Signal Processing technical committee of the IEEE Signal Processing Society (SPS). The objective of the workshop is to provide an informal environment for the discussion of problems in audio, acoustics, and signal processing techniques leading to novel solutions. Technical sessions will be scheduled throughout the day. Afternoons will be left free for informal meetings among workshop participants. As part of a focus on diversity and inclusion, increased travel grant support will be awarded in partnership with the SPS and the IEEE Foundation Student and Young Professionals (SYP) Fund on the basis of SYP eligibility, diversity & inclusion eligibility, financial need, and authorship. Papers describing original research are solicited on, but not limited to, the topics of interest.

#### **Submission of Papers**

Prospective authors are invited to submit full-length papers, with up to four pages of technical content including figures and references, and one optional 5th page of references only. The review process will again be double-blind (no blackout period).

#### **Important Dates**

- Abstract deadline: April 23, 2025
- Paper deadline: April 30, 2025
- Notification of acceptance: July 2, 2025
- Camera-ready paper: July 16, 2025
- Early registration: August 17, 2025

## **ORGANIZING COMMITTEE**

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# TOPICS OF INTEREST

#### ACOUSTIC SIGNAL PROCESSING

- Source separation: single- and multi-microphone techniques
- Signal enhancement: dereverberation, noise reduction, echo reduction
- Microphone and loudspeaker array processing
- Acoustic sensor networks: distributed algorithms, synchronization
- Room acoustics: analysis, modeling and simulation
- Bioacoustics and medical acoustics

### SYNTHESIS AND SIMULATION

- Generative models for audio
- Text to audio/speech generation
- Audio for VR/AR
- Audio effects: artificial reverberation, amplifier modeling
- Spatial audio reproduction

#### ACOUSTIC SCENES AND EVENTS

- Scene analysis and classification
- Event detection and classification
- Source localization and tracking
- Audio captioning, retrieval and understanding
- Multi-modal sensing, analysis and retrieval

#### MUSIC SIGNAL PROCESSING

- Content-based music retrieval: fingerprinting, matching, cover song retrieval
- Musical signal analysis: segmentation, classification, transcription
- Music signal synthesis: waveforms, instrument models, singing, mixing
- Music separation: direct-ambient decomposition, vocal and instruments

#### AUDIO SECURITY AND PRIVACY

- Privacy-preserving audio processing
- Audio analysis for forensics
- Audio watermarking
- · Content authenticity and deep fake detection
- Speaker (de-)identification

#### AUDIO AND SPEECH CODING

- Neural audio coding
- Waveform and parametric coding, low-delay audio and speech coding
- Spatial audio coding
  - Representation learning and sparse representations
- Digital rights

#### HEARING AND PERCEPTION

- Hearing aids
- Computational auditory scene analysis
- Auditory perception and spatial hearing
- Speech and audio quality assessment
  - Speech intelligibility measures and prediction

