How To Be a Great Peer Reviewer for the AES Journal

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Advancing the State of the Art

• The field of Audio Engineering moves forward by sharing new and useful ideas and results: the Journal of the AES (JAES) provides this platform.

• JAES offers a unique audience of practitioners, enthusiasts, companies, and academic scholars.

• Publishing in JAES helps establish you as an expert in your specialty area of audio engineering. This is important for career advancement and professional satisfaction.
The Audio Engineering Society offers many opportunities to share your work:

- AES local sections are often looking for presenters and technical demonstrations
- AES Conventions feature technical sessions with late-breaking information
- AES Conferences offer more in-depth coverage of new ideas and
- The AES Journal provides corroborated and fully-peer-reviewed articles of archival quality
Publishing in the Journal

• A manuscript suitable for the Journal of the Audio Engineering Society will face many tough layers of scrutiny—including peer review by other experts in the field.

• Some manuscripts are initially rejected—and nearly every manuscript requires some revision before publication—to ensure very high quality.

• Manuscript submission outcomes:
  
  ACCEPT / MINOR REVISION / MAJOR REVISION / REJECT
Acceptable Topics for JAES

Audio Engineering

- Audio processing
- Spatial audio
- Headphones
- Loudspeakers
- Psychoacoustics (music listening)
- Room acoustics
- Musical instruments
- Acoustics
- Noise control

Sonic Arts
- Sound design
- DAFx
- Plugins
- Creative use of sound
- Music composition

Speech
- Mic arrays
- Speech enhancement
- Audio forensics
- Speech synthesis
- Speech recognition
- Voice pathologies

Must be related to sound recording or reproduction

Speech
- Speech enhancement
- Audio forensics
- Speech synthesis
- Speech recognition
- Voice pathologies

Audio Engineering
- Digital Audio Forensics
- Musical instruments
- Sound design
- Room acoustics
- Psychoacoustics
- Spatial audio
- Loudspeakers
- Noise control
- Music composition
- Creative use of sound

Sonic Arts
- Sound design
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Speech
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Journal of the Audio Engineering Society

• Editor-in-Chief:  Vesa Välimäki
• Managing Editor:  Paige Horvath
• Production Editor:  Christopher Cifani

• Associate Technical Editors:  Assist the Editor-in-Chief with specific expertise:  loudspeakers, microphones, audio coding, room acoustics, archiving, etc.
Special Issue on New Trends in Audio Effects...

The Dynamic Grid: Time-Varying Parameters for Musical Instrument Simulations Based on Finite-Difference Time-Domain Schemes

Conditioned Source Separation by Attentively Aggregating Frequency Transformations With Self-Conditioning

Nyquist Band Transform: An Order-Preserving Transform for Bandlimited Discretization

Antialiasing for Simplified Nonlinear Volterra Models

The Fast Local Sparsity Method: A Low-Cost Combination of Time-Frequency Representations Based on the Hoyer Sparsity

Style Transfer of Audio Effects with Differentiable Signal Processing

Loudspeaker Equalization for a Moving Listener

Phase-Aware Transformations in Variational Autoencoders for Audio Effects

Deep Audio Effects for Snare Drum Recording Transformations

Word Embeddings for Automatic Equalization in Audio Mixing

A Comparative Study of Music Mastered by Human Engineers and Automated Services
Initial Manuscript Screening by Editor-in-Chief

Editor-in-Chief or an ATE (Associate Technical Editor) does the basic screening

1. Out of scope?
   • Not audio engineering, no JAES references

2. Is it well written?
   • Language deficiency, incomprehensible

3. Too much similarity?
   • Earlier AES Conv paper, plagiarism

4. Is the work properly validated?
   • Comparison/evaluation/experiments

5. Is there novelty?
   • Nothing new is claimed, missing references
Secondary Manuscript Screening by ATE

• Associate Technical Editor carefully reads the abstract, section structure, conclusions, and list of references.

• The ATE identifies 3-5 experts in the area of the manuscript who could understand each and every detail. These individuals are asked to be **PEER REVIEWERS**.
WHO are Peer Reviewers? What do they do?

• Peer reviewers are experts working in the same field as the topic of the manuscript.

• Peer reviewers assess the intrinsic quality, validity, and originality of the manuscript, then make a recommendation on publication.

• For JAES, peer reviewers are *anonymous* to the author. Their service is voluntary, not paid.

• Peer reviewers must be impartial, free of any real or perceived conflict of interest, and must keep confidential the contents of the manuscript.
What makes a good peer review report?

• The peer reviewer needs to assess:
  • The structure and organization of the manuscript.
  • The authors' description of how the new work fits within prior work in the field, and the completeness of the list of references.
  • The clarity and effectiveness of the figures (diagrams, graphs, charts, tables, photos, etc.).
  • The scope and quality of the reported work.
  • The degree to which the authors' claims appear valid, based upon the manuscript's explanations and results.
What do peer reviewers need to remember?

• Peer reviewers are not "co-authors" – the manuscript needs to be considered on its own merits, not "here's what I would do."

• Write the review as a recommendation to the editor.
  • Include a brief summary of the work and its relevance.

• Explain how the authors have placed their new work in the context of ongoing work in the field.

• Determine any errors, misinterpretations, and missing information.

• Always be mindful of ethics and integrity.
Outcomes of the peer review process

• The Associate Technical Editor receives and reads the peer review reports. The result is a recommendation of:
  • **Reject** – the manuscript is not suitable for publication in JAES
  • **Major revision needed** – the manuscript has one or more significant shortcomings that the author needs to address. This might require additional experiments and/or analysis. This recommendation usually involves a full review of the revised manuscript.
  • **Minor revision needed** – the manuscript has some shortcomings that can be remedied by minor adjustments to the text.
  • **Accept** – the manuscript is accepted for publication in JAES.
How should an author respond to peer reviews?

• **Every** JAES manuscript receives suggestions and critical review comments. Don't be angry or discouraged!

• Take the comments seriously: the suggestions provide an opportunity to improve your manuscript.

• If the reviewer misunderstood something, so would other readers. Use the opportunity to provide a clearer explanation.

• If you are revising and resubmitting, clearly address each and every reviewer comment.
Does peer review guarantee perfection?

• Unfortunately, No.
  • Even with thorough and capable peer reviewers, errors and misinterpretations are still possible.

• So what is peer review worth?
  • It provides the author, editor, and future readers a *reasonable* assurance that the manuscript is worth reading and archiving.
Can you be a peer reviewer?

• Yes, if you...
  • Are recognized as an expert in your field of work.
  • Regularly read and use papers published in JAES.
  • Have demonstrated experience writing and publishing papers, and responding to critical peer reviews of your work.
  • Have time to read and knowledgeably discuss the work of others.
  • Understand and embrace the impartiality, confidentiality, and ethical integrity of the peer review process.
  • Recognize the professional obligation of AES members to enhance the quality and usefulness of our Journal.
Conclusion

• Publishing in JAES helps establish you as an expert in your specialty area of audio engineering. This is important for career advancement and professional fulfillment.

• Serving as a peer reviewer contributes to the quality, integrity, and sustainability of AES, and of the AES Journal.

• Peer reviewers enjoy the satisfaction of helping move our profession forward as a key contributor to the audio engineering field.

• Contact an Associate Technical Editor to find out more.
Thank you for your attention

Rob Maher

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Deputy Editor-in-Chief

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