

Explore Acoustics Through ASA Publications' Podcasts

Kat Setzer



Whenever I mention the Acoustical Society of America (ASA) publication's podcast, *Across Acoustics* (acrossacoustics.buzzsprout.com), to someone in the Society, I usually get one of two responses: "I love it!" or "ASA has a podcast?" Sadly, the latter response is still all too common, even though we have published over 50 episodes and have surpassed 20,000 downloads. Thus, my goal with this article is to introduce more people to my pet project. Hopefully, you will enjoy listening to it as much as I have enjoyed recording it!

Across Acoustics started in 2021 and currently publishes two episodes per month. The podcast covers material from all four of the ASA's publications: *The Journal of the Acoustical Society of America (JASA)*, *JASA Express Letters (JASA-EL)*, *Proceedings of Meetings on Acoustics (POMA)*, and, of course, *Acoustics Today (AT)*. Guests on the show have included ASA Gold Medal winners, student researchers, *JASA* guest editors, and other members of the acoustics community representing research institutions and other organizations all over the world. Our aim is to share interviews that are easy to understand, even if the research is not in your field, so you can find out more about what's happening in the world of microphones, supersonic jets, common shrews, lung ultrasound, or any of the many topics covered in our publications. And much like with articles in *AT*, we hope that the podcast content will be appealing and accessible to those outside of the Society as well, so you can share with the nonacousticians in your life!

Below are some of our most listened-to episodes, representing the diversity of topics that we cover on the show. I have also included QR codes for readers who would prefer to listen to episodes on their mobile devices. The next time you are driving to work or doing chores around the house, pop on one of these episodes to make your experience a bit more fun and educational!



What Is Silence?

This highly downloaded episode (see bit.ly/AA-silence) takes a bit of a philosophical bent and will likely appeal to most folks who are interested in the study of sound. In it, ASA Gold Medal recipient William Yost (Arizona State University, Tempe) talks about how we define sound, how perception impacts our understanding of sound, and whether silence is simply the absence of sound or something else.



What Is an Acoustic Metamaterial?

Metamaterials have been a hot topic in the acoustics community since the late 1990s (see bit.ly/4bgmUvv), but there's no consensus among researchers as to what a metamaterial actually is or when they first came about. Christina Naify (University of Texas at Austin), chair of the Structural Acoustics and Vibration Technical Committee, took a deep dive into the literature about metamaterials and then posed the question to an audience of researchers in a session at the ASA conference in Chicago, IL. In this episode (see bit.ly/aa-acoustic-metamaterials), we talk about what came up in that discussion.



Deep Faking Room Impulse Responses

It's not always feasible to measure the entirety of a sound field. Instead, scientists use models to come up with a best guess of the missing pieces. In this episode (see bit.ly/AA-room-impulse-responses), we talk with Efen Fernandez-Grande and Xenofon Karakonstantis (Technical University of Denmark, Kongens Lyngby) about their new machine learning method to reconstruct sound fields.



Conservation Bioacoustics: Listening to the Heartbeat of the Earth

Recent advances in technology have allowed scientists to gather larger quantities of acoustic data from locations more remote than ever before. As a result, the study of animal sounds can be used to inform species or habitat conservation and natural resource management practices in new and exciting ways. In this episode (see bit.ly/AA-cons-bioacoustics), we talk to Aaron Rice (Cornell University, Ithaca, New York) about how acoustics can be used to advance conservation efforts as well as how people outside large research universities can take part in efforts to help save the planet with science. (This episode stems from an article Rice wrote for *AT* (see doi.org/10.1121/AT.2023.19.3.46).



Modeling of Musical Instruments

How does a piano string compare to an ideal physicist's string? Are there equations that describe the sound a recorder produces? Can the quality of an instrument be quantified? In this episode (see bit.ly/AA-modeling-instruments), we talk to one of the editors of the *JASA* Special Issue on Modeling of Musical Instruments (see bit.ly/4as4RkD), Nicholas Giardano (Auburn University, Auburn, Alabama), about the wide variety of research efforts regarding analytical and computational techniques to model musical instruments, and how these techniques can help both instrument makers and musicians.



Reconsidering Classic Ideas in Speech Communication

Most researchers know the seminal articles that have impacted their field. Sometimes, though, the research in those articles can get misinterpreted or exaggerated, and those misunderstandings can take hold and reappear year after year. In this episode (see bit.ly/AA-speech-comm), we talk to the editors of the *JASA* Special Issue on Reconsidering Classic Ideas in Speech Communication (see bit.ly/4arfzrJ), Matthew Winn (University of Minnesota, Minneapolis), Richard Wright (University of Washington, Seattle), and Benjamin Tucker (Northern Arizona University, Flagstaff), about ideas in speech communication that were reexamined in the Special Issue.

This is only a handful of our many episodes, which span the breadth of the ASA's areas of study. I hope after listening to some of these, you will be enticed to explore our

archives and find more that pique your interest! Plus, the podcast is available on the major podcast platforms, so you can subscribe and have the latest episode delivered directly to your mobile device.

And more good news: Going forward, *AT* will be including links to related episodes with every article (and QR codes, so you can just scan with your phone and listen!). Keep an eye out for insets with related content in the articles of this and coming issues of *AT*.

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