



We are starting a new feature in our “Sound Perspectives” section that will appear in each spring and fall issue of *Acoustics Today* (AT), a list of the various awards and prizes that

will be given out and the new Fellows who will be honored by the Acoustical Society of America (ASA) at the spring and fall meetings (awardees and Fellows in this issue of AT will be honored at the Spring 2019 Meeting). The idea for including this list came from ASA President Lily Wang, and I thank her for her suggestion because inclusion of this list further enhances the ways in which AT can contribute to our Society.

I am particularly pleased that several of the awardees have been, or will be, AT authors. In fact, one author in this issue was just elected a Fellow. And I intend to scour these lists for possible future authors for the magazine.

I usually enjoy the mix of articles in the issues of AT, and this one is no exception. The first article by Michael D. Gray, Eleanor P. Stride, and Constantin-C. Coussios provides insight into the use of ultrasound in medical diagnosis. I invited Constantin to write this article after I heard him give an outstanding talk at an ASA meeting, and the article reflects the quality of that talk.

This is followed by an article written by Brian Ferguson on how signal processing is used in defense applications. Brian gives a great overview that includes defense issues both in the sea and on land and he presents ideas that, admittedly, I had never known even existed.

In the third article, Kelsey Hochgraf talks about the art of design of concert halls. Many readers might remember that Kelsey was the first person featured in our “Ask an Acoustician” series ([bit.ly/2D4RkmI](http://bit.ly/2D4RkmI)). After learning about Kelsey and her interests from that column, I invited her to do this article that gives a fascinating insight into a number of world-renowned concert halls.

The fourth article is by Lori Leibold, Emily Buss, and Lauren Calandrucchio. They have one of the more intriguing titles, and their article focuses on how children understand sound in noisy environments. Anyone with kids (or, in my case, grandkids) will find this piece interesting and a great complement to the article on classroom acoustics in the fall 2018 issue of AT [bit.ly/2D4ydJt](http://bit.ly/2D4ydJt).

I will admit some “prejudice” to the fifth article. I was in San Diego about 18 months ago and had lunch with my friend, and former student, Patrick Moore. We started to reminisce (we go back many decades) and talked about a mutual “friend,” a dolphin by the name of Heptuna. As you will discover, Heptuna was a unique Navy “researcher.” After discussing the very many projects in which Heptuna participated, I invited Patrick to write about the history of this animal. He turned this on me and invited me to coauthor, and I could not resist. I trust you will see why!

The final article is by Blake Wilson, the only member of the ASA to ever win a Lasker Award ([bit.ly/2AGBQnc](http://bit.ly/2AGBQnc)). Blake is a pioneer in the development of cochlear implants, and he has written a wonderful history of this unique and important prosthetic that has helped numerous people with hearing issues.

As usual, we have a range of “Sound Perspectives” articles. “Ask an Acoustician” features Kent Gee, editor of *Proceedings of Meetings on Acoustics* (POMA). I have the pleasure of working with Kent as part of the ASA editorial team, and so it has been great to learn more about him.

This issue of AT also has a new International Student Challenge Problem that is described by Brian Ferguson, Lee Culver, and Kay Gemba. Although the problem is really designed for students in a limited number of technical committees (TCs), I trust that other members of the ASA will find the challenge interesting and potentially fun. And if other TCs want to develop similar types of challenges, I would be very pleased to feature them in AT.

Our third “Sound Perspectives” is, in my view, of particular importance and quite provocative. It is written by four researchers who are hearing impaired: Henry J. Adler, J. Tilak Ratnanather, Peter S. Steyger, and Brad N. Buran. I’ve known the first three authors for many years, and when I heard about their interests in sharing issues about being a hearing-impaired scientist and how they deal with the world, I immediately invited them to write for AT.

I am particularly pleased that one of the authors of this article is Dr. Buran. Brad was an undergraduate in my lab at the University of Maryland, College Park, working on the ultrastructure of fish ears. You can learn more about his career path in auditory neuroscience in the article. Having Brad in

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## From the Editor

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the lab was a wonderful experience, partly because he has a rather “wicked” sense of humor, but mostly because he helped everyone in my lab better understand and appreciate the unique role that hearing plays in our lives and the implications of hearing loss. Working with Brad was a tremendous learning experience for all of us (and I think for Brad as well). I encourage every member of the ASA to read this article and think about what the authors are saying. In many ways, all of us in acoustics can learn about the importance of sound from these four exceptional scholars.

Finally, I want to encourage everyone to think about using articles from *AT* for teaching purposes. To date, there are over 250 articles (and many essays) in past issues of *AT*, all of which are available online and open access. There is sufficient material in many areas where an instructor could assign a number of *AT* articles to their classes, either as part of course packs or by just giving the URLs. Indeed, if anyone does put together sets of articles for various classes, feel free to share the list (with the URLs) with me and it will be published in *AT* and/or placed on our website for the use of other instructors.

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 Source room volume: 50 m<sup>3</sup>  
 Receiving room volume: 50 m<sup>3</sup>

Frequency f Hz	DnT 1/3 octave dB
50	31.2
63	38.5
80	32.3
100	32.3
125	38.5
160	41.2
200	39.4
250	39.9
315	40.0
400	41.3
500	42.1
630	45.6
800	49.2
1000	50.6
1250	50.6

DnT (dB)

Legend: DnT, frequency range according to the shifted curve of reference values (ISO 717-1)

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