

177<sup>th</sup> ASA Meeting  
Louisville, Kentucky  
May 13-17, 2019



## **P&P Technical Committee Meeting**

May 14, 2019

Chair: Frederick J. Gallun

VA RR&D NCRAR

Oregon Health & Science University



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# Agenda

- Acknowledgment of PPTC Serving ASA
- JASA
- Louisville Sessions
- Medals and Awards
- Survey Results
- Upcoming Meetings
- Leadership Summit
- Harassment Policy and STOPit App
- Student Council Report
- Open Forum

# Technical Committee Members:

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## Term 2016 - 2019

Huanping Dai

Karen Helfer

Pamela Souza

Elizabeth Strickland

Sarah Verhulst

Matthew Win

## Term 2017 - 2020

Joshua Bernstein

Emily Buss

Hari Bharadwaj

Monita Chatterjee

Ross Maddox

Christopher Shera

Christian Stilp

## Term 2018 - 2021

Michael Akeroyd

Anna Diedesch

Richard Freyman

Antje Ihlefeld

Alan Kan

Elin Roverud

**VOTE FOR 6  
NEW MEMBERS!**

## Term 2019 – 2022

**(Starts after Louisville)**

Douglas Brungart

David Eddins

Ruth Litovsky

Virginia Richards

G. Christopher Stecker

Kelly Whiteford

# P&P Members Serving ASA

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**Peggy Nelson:** Vice-President Elect;  
Women in Acoustics; Meetings

**Brian C.J. Moore:** Executive Council

**Marjorie Leek:** Membership (Chair,  
outgoing)

**Elizabeth Strickland:** Membership (Chair,  
incoming)

**Judy Dubno:** Investments; Acoustical  
Foundation; Rules and Governance

**William Hartmann:** Rules and  
Governance (Chair); Investments; Public  
Policy

**Adam Svec:** Education in Acoustics

**Jennifer Lentz:** Archives and History

**Anna Diedesch:** Women in Acoustics

**Elin Roverud:** Education in Acoustics;  
Women in Acoustics

**Frederick Gallun:** Publication Policy;

Ethics and Grievances (Chair)

**Lynne Werner:** Strategic Task Force 1

**Anahita Mehta:** Strategic Task Force 2

**Kelly Whiteford:** Strategic Task Force 2

**Adrian KC Lee:** Strategic Task Force 3  
(Chief Enthusiast); Education in Acoustics;  
Committee on International Liason

**G. Christopher Stecker:** ASA Books

**Barbara Shinn-Cunningham:** Finance

**Pavel Zahorik:** Meetings

**William Yost:** Public Policy

**Karen Helfer:** Prizes and Special  
Fellowships

*Ex officio:*

**Lori Leibold,** member of Membership  
Committee

**Andrew J. Oxenham,** member of the  
Medals and Awards Committee

**Daniel Guest,** member of Student  
Council

**Skyler G. Jennings,** member of ASACOS

Please email  
with any  
corrections or  
additions

# Journal of the Acoustical Society of America

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## **P & P Associate Editors**

### **Coordinating Editor**

Adrian K.C. Lee (outgoing)  
G. Christopher Stecker (incoming)

### **Associate Editors (outgoing)**

Virginia Best  
Ian C. Bruce  
Adrian K.C. Lee  
Virginia Richards

### **Associate Editors (incoming)**

Hari Bharadwaj  
Matt Goupell  
Karen Helfer  
Sarah Verhulst

### **Associate Editors (ongoing)**

Les R. Bernstein  
Joshua Bernstein  
Jonas Braasch  
Mathias Dietz  
Philip X. Joris  
Jennifer Lentz  
Brenda Lonsbury-Martin  
Christopher A. Shera  
G. Christopher Stecker

### **JASA EL**

B.L. Lonsbury-Martin (Phys)  
Q.-J. Fu (Psych)

### **POMA**

Hari Patra

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# JASA

- New Submissions PP received (April 18 - March 19): 151
- Average days from 1st submission to 1st decision: 49
  - (below other TC average, may target 40-45 days pending on whether it's realistic for the next CE)
- Acceptance Rate: 61%

# JASA

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- TC Chair Picks and Editors Pick

<https://asa.scitation.org/journal/jas>

- free access for 90 days
  - elected TC members nominate papers, so talk to them if you have suggestions
- JASA wants reviews and tutorials, they get very high impact factors and generate lots of interest. Please consider writing these in your area.

## ➤ **New *JASA Reflections* to Honor Significant Articles**

- PP TC needs to choose a committee to identify 5-10 articles published prior to 2000 to be included in JASA Reflections
- Please email [Frederick.Gallun@va.gov](mailto:Frederick.Gallun@va.gov) to nominate (yourself or others)

# New *JASA Reflections* to Honor Significant Articles

Diane Kewley-Port and Jim Lynch

- JASA articles with world-wide impact across TCs
- Single-page features with professional graphics
- Features displayed multiple ways
  - ASA website (in Archives and History)
  - On Scitation as own JASA Section (e.g. "Book Reviews")
  - Back page of printed JASA
  - Goal: Create 100 *JASA Reflections* by 100<sup>th</sup> Anniversary in 2029
- On-line version to include Additional Materials
  - Audio files
  - Follow up information on development of research described in JASA article
  - References
- Sample *JASA Reflections* authored by Diane Kewley-Port and Terrance Nearey describing Dennis Klatt's speech synthesizer: [Perfect Paul](#)

The *JASA Reflections* series takes a look back on JASA articles that have had a significant impact on the science of acoustics and the world. This inaugural REFLECTIONS looks at Dennis H. Klatt's work on the computer synthesis of high quality speech.

### Seminal Article That Helped Give Stephen Hawking a Voice

Article: Software for a cascade/parallel formant synthesizer

Author: Dennis H. Klatt

Original Publication Date: March 1, 1980 (JASA 67, 971)

<https://asa.scitation.org/doi/10.1121/1.383940>

#### ARTICLE OVERVIEW

Klatt (1980) described a computer synthesizer that was an extraordinary step forward in generating high-quality human speech by machine. It implemented newly developed digital signal processing techniques to produce the resonances (formants) of the vocal tract differentiating vowel sounds. Significantly there were two separate algorithms for the synthesis that were merged; The Cascade branch used a smoothed harmonic source for voiced pitch in vowels while the Parallel branch used a noise source and filters for the specific frequency bands in consonants. The two branches synthesized more natural sounding speech and with later enhancements allowed for development of voices for male and female speakers (see D.H. Klatt & L.C. Klatt (1990). *J. Acoust. Soc. Am.* 87, 820; <https://doi.org/10.1121/1.398894>)

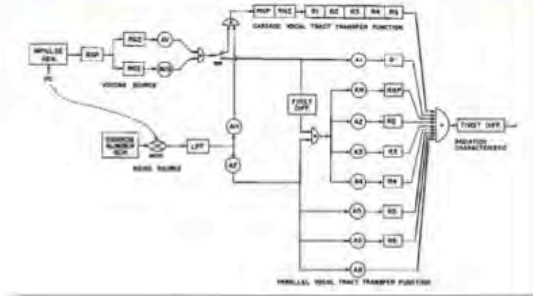


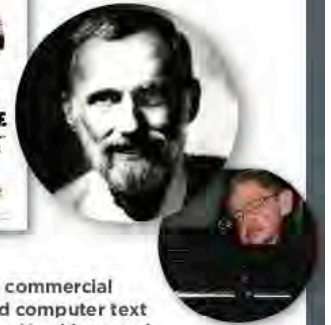
Figure 6

#### IMPACT OF THE ARTICLE

Professor Klatt made several influential contributions to speech synthesis. His formant synthesizer software was immediately made available in Fortran code published in this 1980 JASA article. Scientists continue to use it today to study all aspects of speech, including synthesized speech sounds from infants to elderly talkers and sounds of world languages. Because of his interest in helping people with disabilities, he developed a text-to-speech (TTS) system (D.H. Klatt. (1987) *J. Acoust. Soc. Am.* 82 737; <https://doi.org/10.1121/1.395275>). His Klattalk TTS system became a commercial product in DECTalk (Digital Equipment Corp., 1984). It was used widely to read aloud computer text by people with low vision. Well known was one voice, Perfect Paul, that Prof. Stephen Hawking used throughout his life. Perfect Paul was modeled on Klatt's own speech [https://asa.scitation.org/doi/suppl/10.1121/1.395275/suppl\\_file/35a.m4a](https://asa.scitation.org/doi/suppl/10.1121/1.395275/suppl_file/35a.m4a).

#### CURRENT STATUS

Several software implementations of Klatt's synthesizers continue to be freely available, including the KlattGrid component of the ubiquitous Praat system. While most newer text-to-speech systems, including those in augmented and alternative communication (AAC) devices rely on newer data-driven synthesis methods, formant synthesis similar to Klatt's is still used in small footprint TTS packages such as eSpeak. Whether or not any current devices still use DECTalk-derived methods, its role in AAC was seminal, showing what could be done the emerging technology and underlining the importance of spoken word in assistive communication.



- TC PSYCHOLOGICAL AND PHYSIOLOGICAL ACOUSTICS (PP)
- Acoustics Outreach to Budding Scientists: Planting Seeds for Future Clinical and Physiological Collaborations
- Applications of Signal Detection Theory in Perception and Physiology
- Context Effects in Speech Perception
- Cultivating New Growth by Composting Old Ideas: Pruning the Deadwood from the Garden of Psychological and Physiological Acoustics
- Diversity in Auditory Perception and Speech Communication
- Physiology Meets Perception

# 177<sup>th</sup> Meeting, Louisville, Kentucky, 13 – 17 May, 2019

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- TC SPEECH COMMUNICATION
  - Acoustic Phonetic Properties of Infant-and-Child Directed Speech
- TC MUSICAL ACOUSTICS
  - Polyphonic Pitch Perception and Analysis
- TC NOISE
  - Acoustic Vehicle Alerts: Effects on Soundscape, Quality of Life, and Traffic Safety
  - Advances and Applications in Sound Quality Metrics Measurements
- TC PHYSICAL ACOUSTICS
  - Battlefield Acoustics

# Awards and Medals

## **Glenis Long**

William and Christine Hartmann Prize in Auditory Neuroscience

## **Barbara Shinn-Cunningham**

Helmholtz-Rayleigh Interdisciplinary Silver Medal



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# New Fellows in PP and SC

## Elected Spring 2018

- Brian F. Katz
- Catherine L. Rogers

## Elected Fall 2018

- Lori Leibold
- Rajka Smiljanic
- Edward J. Walsh

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# ASA Election

President Elect (2019-20):  
Diane Kewley-Port

Vice President Elect (2019-20):  
Stan Dosso

Executive Council (2019-20):  
Bennett Brooks  
Andrew Morrison

# Medals, Awards, and Fellows

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Gold Medal, Silver Medal, Helmholtz-Rayleigh Medal, Bekesy Medal, Lindsay Award

<http://tcppasa.org/awards>

Hartmann Prize in Auditory Neuroscience

- Nominations due to ASA 6 weeks before Fall meeting
- PLEASE renominate if your nominee is not chosen

ASA Fellows

[http://acousticalsociety.org/membership/rules\\_and\\_procedures/procedures#fellowship](http://acousticalsociety.org/membership/rules_and_procedures/procedures#fellowship)

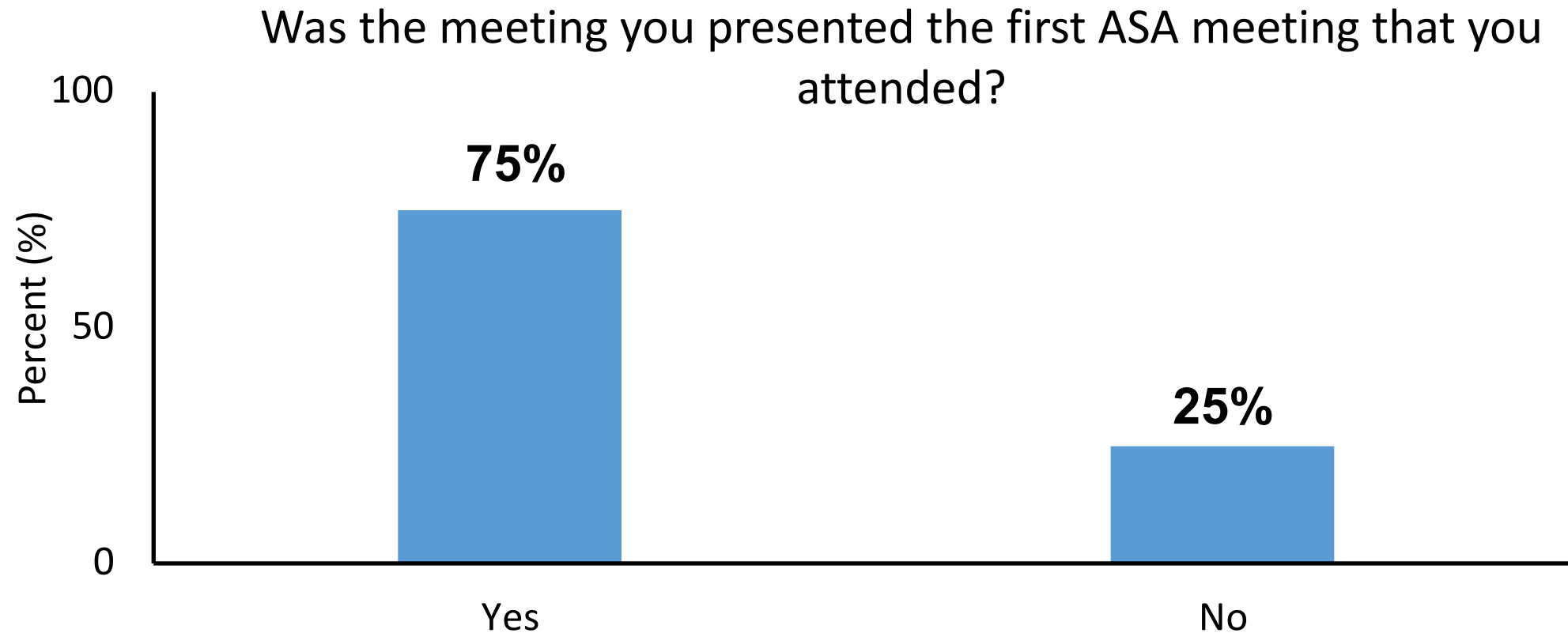
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# Acoustics Outreach Survey Results

Kelly Whiteford, PhD

# Survey Participants

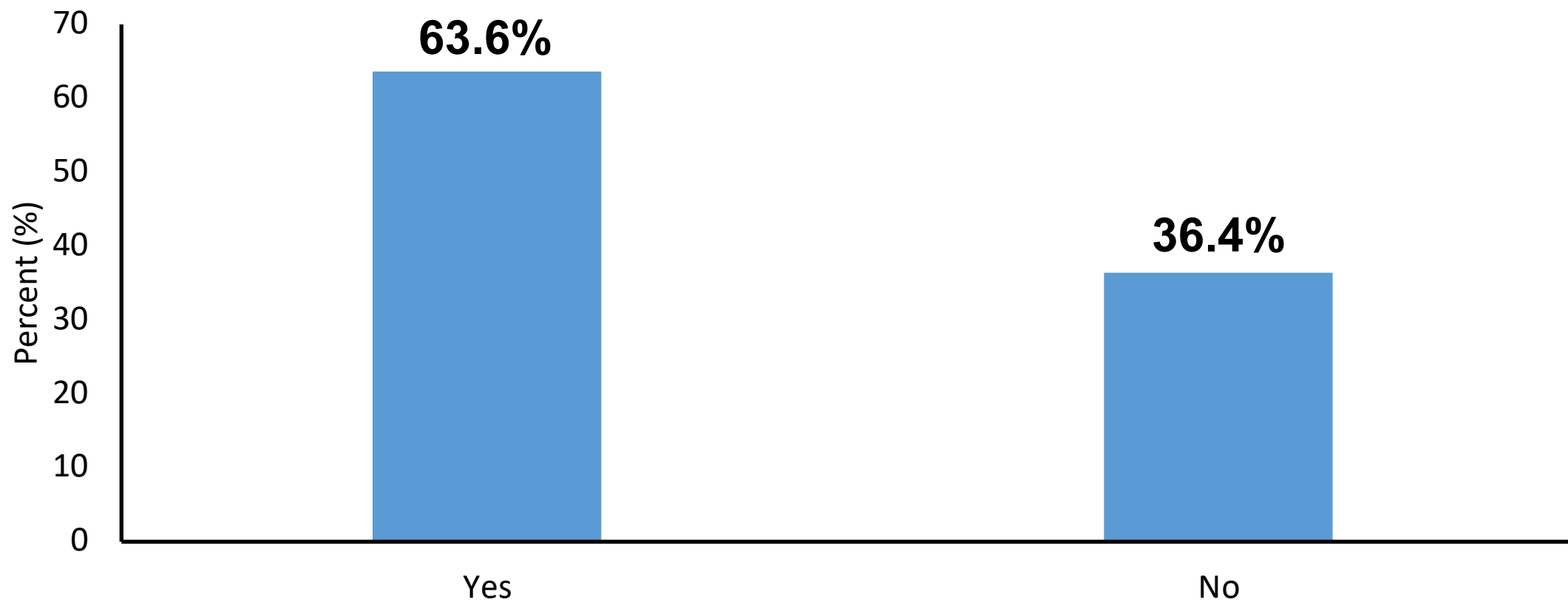
- 12 of 18 past award winners participated



# Results (n=11)

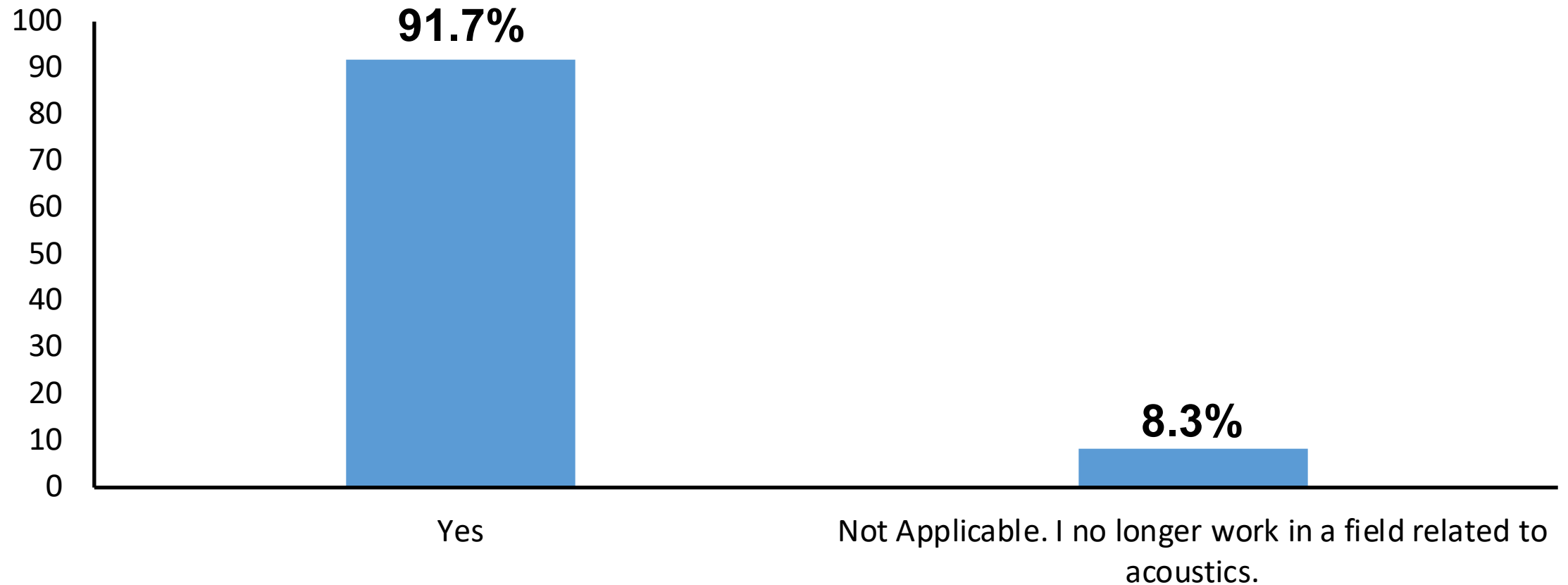
- Results below exclude person who is no longer in acoustics.

Are you currently a member of the Acoustical Society of America?



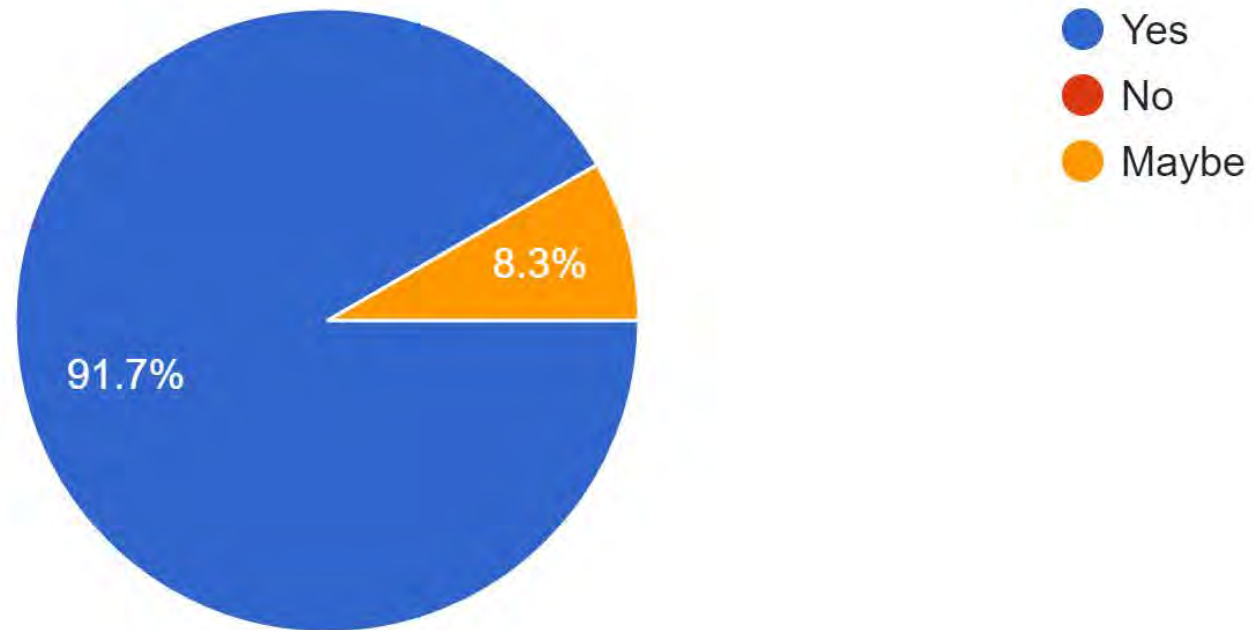
# Survey Participants

Do you think ASA is a relevant conference for your research and/or industry interests?



# Would you encourage your colleagues to attend ASA meetings?

12 responses



## Other Feedback (2 respondents)

- “It is one of the best meetings in my field.”
- “This was a really excellent opportunity for me to get mentorship from senior scholars that I otherwise would not have had the opportunity to meet!”

# Future ASA meetings:

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- 178<sup>th</sup> Meeting, San Diego, California,
  - 30 November-6 December 2019
  - Early career retreat
  
- 179<sup>th</sup> Meeting, Chicago, Illinois,
  - Spring 2020
  - ASA School
  - \$1000 awards for student poster competition
    - **Ellen Peng will chair**
  - Special session proposals due by FRIDAY

# Chicago Special Sessions (Proposed)

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- Honoring the contributions of Bill Yost to hearing science
- Age-related changes in bottom-up and top-down mechanisms of speech perception; interactions with hearing loss and cochlear implants
- Developmental changes in signal encoding, attention and cognition and their effects on speech perception by children
- Virtual and Augmented Reality: Tools, techniques, and new directions
- Ecological assessment of auditory perception
- Ecological cocktail party listening
- Large-scale tablet-based psychoacoustics
- Machine learning approaches to understanding auditory processing and perception

## Future ASA meetings:

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- 178<sup>th</sup> Meeting, San Diego, California,
  - 30 November-6 December 2019
  - Early career retreat
- 179<sup>th</sup> Meeting, Chicago, Illinois,
  - Spring 2020
  - ASA School
- 180<sup>th</sup> Meeting, Cancun, Mexico,
  - Fall 2020
- 181<sup>st</sup> Meeting, Portland, OR (?)
  - pending successful site visit
  - Spring 2021
- 182<sup>nd</sup> Meeting, Sydney, Australia,
  - Fall 2021

# Leadership Summit

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## New Strategic Plan adopted by EC Monday, May 13, 2019

At Leadership Summit in Tucson, AZ, Feb 2019: 47 Technical Initiatives generated, of which 4 strategic areas were identified for the core of the strategic plan for the next 3 years

- Identification and promotion of emerging scientific and technical areas relevant to acoustics
- Better engagement of industry and practitioners
- Improved communications and public relations
- Membership engagement, outside of Meetings

Champions meeting on Thursday at 2pm

# Harassment Policy

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It is the policy of the Acoustical Society of America that all participants in Society activities will enjoy an environment free from all forms of discrimination, harassment, and retaliation.

As a professional society, ASA is committed to providing an atmosphere that encourages the free expression and exchange of scientific ideas.

In pursuit of that ideal, ASA is dedicated to the philosophy of equality of opportunity and treatment for all members regardless of any other reason not related to scientific merit.

Harassment, sexual or otherwise, is a form of misconduct that undermines the integrity of Society meetings. Violators of this policy will be subject to discipline.

<https://acousticalsociety.org/harassment-policy/>

# StopIt App

<https://acousticalsociety.org/stopit-download-the-app-today/>



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# Student Council Report

**Daniel Guest**, PP Student Council Rep

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# OPEN FORUM