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| Samuel D. Bellows |

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| 1/25/2023 |  |
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# Journal Publications

S. D. Bellows and T.W. Leishman. "Optimal Microphone Placement for Single-Channel Sound Power Spectrum Estimation and Reverberation Effects," *Journal of the Audio Engineering Society,* 71(1/2), pp. 22–35, (2023). doi: 10.17743/jaes.2022.0052

T. W. Leishman, S. D. Bellows, C. M. Pincock and J. K. Whiting, "High-resolution spherical directivity of live speech from a multiple-capture transfer-function method," *Journal of the Acoustical Society of America,* 149(3), pp. 1507–1523, (2021). doi: 10.1121/10.0003363.

# Conference Proceedings

S. D. Bellows and T. W. Leishman, “Effect of Head Orientation on Speech Directivity.” Proc. Interspeech 2022, 246-250, (2022). doi: 10.21437/Interspeech.2022-553.

S. D. Bellows and T. W. Leishman, "Modeling musician diffraction and absorption for artificially excited clarinet directivity measurements", Proc. Mtgs. Acoust. 46, 035002, (2022). doi: 10.1121/2.0001586.

S. D. Bellows and T. W. Leishman, "Obtaining far-field spherical directivities of guitar amplifiers from arbitrarily shaped arrays using the Helmholtz equation least-squares method", Proc. Mtgs. Acoust. 42, 055005, (2020). doi: 10.1121/2.0001410.

S. D. Bellows and T. W. Leishman, "Acoustic source centering of musical instrument directivities using acoustical holography", Proc. Mtgs. Acoust. 42, 055002, (2020). doi:10.1121/2.0001371.

S. Bellows and T. Leishman, "Single-channel sound power estimation for reverberation effects," AES Convention 149, Paper 10413, (2020).

S. Bellows and T. Leishman, “High-resolution Analysis of the Directivity Factor and Directivity Index Functions of Human Speech,” AES Convention 146, Paper 10173, (2019).

S. Bellows and T. W. Leishman, “Spherical harmonic expansions of high-resolution musical instrument directivities,” *Proc. Mtgs. Acoust.* **35**, (2018). doi:10.1121/2.0001274.

# Other Presentations

S. D. Bellows and T. W. Leishman, “Comparative Analysis of the Directivity of the Sogeum and Danso,” presented at the Korean Acoustical Society Fall Meeting, 2022.

R. C. Edelman, B. E. Anderson, S. D. Bellows, and T. W. Leishman, “Measured high-resolution directivities of guitar amplifiers,” presented at ASA Denver, 2022.

R. C. Edelman, S. Bellows, and T. W. Leishman. “An archival database of high-resolution directivities,” presented at ASA San Diego, 2019.

S. Bellows and T. W. Leishman, “Application of Hilbert space operators on the sphere to directivity measurements,” presented at ASA San Diego, 2019.

# Education

## B.S. Applied Physics (3.96) Brigham Young University

## Ph.D. Physics-Acoustics Research Group (4.0) Brigham Young University (currently enrolled with expected graduation June 2023)

# work experience

## Intern | Yamaha Corporation | Hamamatsu, Japan | June 2022 – September 2022

* Studied violin acoustics as well as f-hole design to improve characteristics of fractional sized violins.

## Intern | AFMG Group | Berlin, Germany | June 2019 – August 2019

* Developed real-time binaural convolver with head-tracking in C++ for room auralizations based on echograms created in EASE

## Intern | Associazione Siena Jazz |Siena, Italy| May 2017 – July 2017

* Used JavaScript and PHP to create ear-training tools to help jazz musicians studying music theory.

# Awards and recognition

## POMA Student Paper Competition Winner for ASA Spring 2022 Meeting

## Recipient of William James Strong and Charlene Fuhriman Strong Family Musical Acoustics Endowed Fellowship Fund (2021 – 2023)

## Recipient of Heritage Scholarship (2013-2019)