

# Publication Topical Guide

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## Introduction

My publications [page](#) lists a lot of papers and it can be awfully hard to navigate by topic or to determine which ones are still relevant. Below are topics along with the papers in each area; papers may appear in more than one area. Papers from my CV that have been clearly superseded by another publication are not listed.

## Acoustic Beamforming

A. B. Vaughn, K. L. Gee, S. H. Swift, K. M. Leete, A. T. Wall, J. M. Downing, and M. M. James, “[Source localization of crackle-related events in military aircraft jet noise](#),” AIAA J. 59, 2251-2261 (2021).

D. F. Van Komen, B. M. Harker, T. B. Neilsen, K. L. Gee, S. H. Swift, A. T. Wall, J. M. Downing, and M. M. James, “[Characterizing distinct components of tactical aircraft noise sources](#),” J. Acoust. Soc. Am. **147**, 3550-3564 (2020).

B. M. Harker, K. L. Gee, T. B. Neilsen, A. T. Wall, and M. M. James, “[Source characterization of full-scale tactical jet noise from phased-array measurements](#),” J. Acoust. Soc. Am. **146**, 665-680 (2019).

C. B. Goates, B. M. Harker, T. B. Neilsen, and K. L. Gee, “[Extending the bandwidth of an acoustic beamforming array using phase unwrapping and array interpolation](#),” J. Acoust. Soc. Am. **141**, EL407-EL412 (2017).

## Demonstrations

J. H. Macedone, K. L. Gee, and J. A. Vernon, “[Managing auditory risk of acoustically impulsive chemistry demonstrations](#),” J. Chem. Educ., **91**, 1661-1666 (2014).

S. B. Perry and K. L. Gee, “[The acoustically driven vortex cannon](#),” Phys. Teach. **52**, 146-147 (2014).

M. B. Muhlestein, K. L. Gee, and J. H. Macedone, “[Educational demonstration of a spherically propagating acoustic shock](#),” J. Acoust. Soc. Am. **131**, 2422-2430 (2012).

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K. L. Gee, “[The Rubens tube](#),” Proc. Mtgs. Acoust. **8**, 025003 (2011).

K. L. Gee, J. A. Vernon, and J. H. Macedone, “[Auditory risk of exploding hydrogen-oxygen balloons](#),” J. Chem. Educ. **87**, 1039-1044 (2010).

M. Gardner, K. L. Gee, and G. Dix, “[An investigation of Rubens flame tube resonances](#),” J. Acoust. Soc. Am. **125**, 1285-1292 (2009).

D. C. Thomas, K. L. Gee, and R. S. Turley, “[A balloon lens: Acoustic scattering from a penetrable sphere](#),” Am. J. Phys. **77**, 197- 203 (2009).

## Education

- K. L. Gee, "[On the contributions of David T. Blackstock to understanding nonlinear propagation of jet noise](#)," Proc. Mtgs. Acoust. **45**, 045001 (2022).
- K. L. Gee, "[Improving mentored research relationships](#)," Proc. Mtgs. Acoust. **39**, 025002 (2020).
- K. L. Gee, "[How POMA and other conference proceedings empower students to publish](#)," Proc. Mtgs. Acoust. **36**, 032001 (2019).
- K. L. Gee, "[Incorporating measurement standards for sound power in an advanced acoustics laboratory course](#)," Proc. Mtgs. Acoust. **30**, 040001 (2017).
- C. B. Goates, J. K. Whiting, M. L. Berardi, K. L. Gee, and T. B. Neilsen, "[The sound of STEAM: Acoustics as the bridge between the arts and STEM](#)," Proc. Mtgs. Acoust. **26**, 025002 (2017).
- K. L. Gee and A. N. Popper, "[Improving academic mentoring relationships and environments](#)," Acoustics Today, **13**(3), 27-35 (2017).
- B. E. Anderson, K. L. Gee and T. B. Neilsen, "[Teaching the descriptive physics of string instruments at the undergraduate level](#)," Proc. Mtgs. Acoust. **26**, 035002 (2016).
- C. T. Vongsawad, M. Berardi, J. L. Whiting, M. J. Lawler, K. L. Gee, and T. B. Neilsen, "[Acoustics for the Deaf: Can you see me now?](#)," Phys. Teach. **54**, 369-371 (2016).
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- K. L. Gee, T. B. Neilsen, S. D. Sommerfeldt and T. W. Leishman, "[Preparing for a career in academia: Managing students in research](#)," Proc. Mtgs. Acoust. **23**, 025001 (2015).
- C. T. Vongsawad, T. B. Neilsen, and K. L. Gee, "[Development of educational stations for Acoustical Society of America outreach](#)," Proc. Mtgs. Acoust. **20**, 25003 (2014).
- K. L. Gee and T. B. Neilsen, "[Resource letter: Acoustics for physics pedagogy and outreach](#)," Am. J. Phys. **82**, 825-838 (2014).
- K. L. Gee, T. B. Neilsen, A. T. Wall, and N. J. Eyring, "[Teaching principles of outdoor sound propagation using football game measurements](#)," Proc. Mtgs. Acoust. **19**, 025007 (2013).
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- K. L. Gee and T. B. Neilsen, "[Application of Just-In-Time Teaching to advanced acoustics courses](#)," Proc. Mtgs. Acoust. **18**, 025002 (2012).
- T. B. Neilsen and K. L. Gee, "[Use of a Just-In-Time Teaching techniques in an introductory acoustics class](#)," Proc. Mtgs. Acoust. **18**, 025001 (2012).
- K. L. Gee, S. D. Sommerfeldt, and T. B. Neilsen, "[The current state of acoustics education at Brigham Young University](#)," Proc. Mtgs. Acoust. **11**, 025002 (2012).
- T. B. Neilsen and K. L. Gee, "[Application of active-learning techniques to enhance student-based learning objectives](#)," Proc. Mtgs. Acoust. **14**, 025001 (2012).

K. L. Gee, S. D. Sommerfeldt, T. W. Leishman, B. E. Anderson, and J. D. Blotter, “[Improving undergraduate noise control education at Brigham Young University](#),” Proc. Internoise 2009, paper 10521.

## Acoustical Holography

### *Applications*

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A. T. Wall, K. L. Gee, T. B. Neilsen, D. W. Krueger, and M. M. James, “[Cylindrical acoustical holography applied to full-scale military jet aircraft noise](#),” J. Acoust. Soc. Am. **136**, 1120-1128 (2014).

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T. Neilsen, K. L. Gee, and M. D. Gardner, “[Near-field acoustic holography in conical coordinates](#),” Proc. Mtgs. Acoust. **6**, 065004 (2009).

## Impulse Noise

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K. M. Leete, K. L. Gee, T. B. Neilsen, and T. T. Truscott, “[Mach stem formation in outdoor measurements of acoustic shocks](#),” J. Acoust. Soc. Am. **138**, EL522-527 (2015).

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J. A. Vernon, K. L. Gee, and J. H. Macedone, “[Acoustical characterization of exploding hydrogen-oxygen balloons](#),” J. Acoust. Soc. Am. **131**, EL243-EL249 (2012).

M. D. Shaw and K. L. Gee, “[Acoustical design of a firing range for a 30-mm Gatling gun](#),” Noise Control Eng. J. **58**, 611-620 (2010).

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## Intensity and Other Pressure-gradient Methods

M. C. Mortenson, S. Gilbert, T. B. Neilsen, K. L. Gee, and S. D. Sommerfeldt, “[Bandwidth extension of intensity-based sound power estimates](#),” J. Acoust. Soc. Am. **147**, EL409-EL414 (2020).

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B. Y. Christensen, K. L. Gee, B. E. Anderson, and A. T. Wall, “[Modal response and sound radiation from a hammered dulcimer](#),” Proc. Mtgs. Acoust. **14**, 035001 (2014).

D. W. Krueger, K. L. Gee, and J. Grimshaw, “[Acoustical and vibrometry analysis of a large Balinese gamelan gong](#),” J. Acoust. Soc. Am. **128**, EL8-EL13 (2010).

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# Jet Noise

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- C. P. Lubert, K. L. Gee, and S. Tsutsumi, “[Supersonic jet noise from launch vehicles: 50 years since NASA SP-8072](#),” *J. Acoust. Soc. Am.* **151**, 752-791 (2022).
- C. P. Lubert, S. Tsutsumi, A. T. Wall, K. L. Gee, and A. C. Aubert, “[Summary of ‘Supersonic Jet Aeroacoustics’ Special Session](#),” *Proc. Mtgs. Acoust.* 35, 002002 (2019).
- K. L. Gee, C. P. Lubert, A. T. Wall, and S. Tsutsumi, “[Summary of ‘Supersonic Jet and Rocket Noise’](#),” *Proc. Mtgs. Acoust.* 31, 040002 (2017).
- K. L. Gee, S. Tsutsumi, J. Houston, and A.T. Wall, “[Summary of “Acoustics of Supersonic Jets: Launch Vehicle and Military Jet Acoustics”](#)”, *Proc. Mtgs. Acoust.* 29, 045001 (2017).
- K. L. Gee, T. B. Neilsen, A. T. Wall, J. M. Downing, and M. M. James, “[The ‘sound of freedom’: Characterizing jet noise from high-performance military aircraft](#),” *Acoustics Today* **9**(3), 8-21 (2013).

## Clustered Jets

- I. S. Coltrin, R. D. Maynes, J. D. Blotter, and K. L. Gee, “[Influence of nozzle spacing and diameter on acoustic radiation from supersonic jets in closely spaced arrays](#),” *Appl. Acoust.* **81**, 19-25 (2014).
- I. S. Coltrin, J. D. Blotter, R. D. Maynes, and K. L. Gee, “[Shock-cell structures and corresponding sound pressure levels emitted from closely spaced supersonic jet arrays](#),” *Appl. Acoust.* **74**, 1519-1526 (2013).

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- S. H. Swift, Kent L. Gee, T. B. Neilsen, A. T. Wall, J. M. Downing, and M. M. James, “[Spatiotemporal-correlation analysis of jet noise from a round nozzle high-performance aircraft](#),” *AIAA paper 2018-3938*.
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## Crackle

\*see also [Nonlinearity](#) [Nonlinear Theory](#) [Psychoacoustics and Sound Quality](#)\*

- A. B. Vaughn, K. L. Gee, K. M. Leete, and J. M. Downing, “[Near to far field correlation of crackle-related events in military aircraft jet noise](#),” *Proc. Mtgs. Acoust.* 42, 045008 (2020).

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### *Flyover Noise*

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## Sonic Boom

\*Multiple publications pending\* - stay tuned

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