

THE UNIVERSITY OF TEXAS AT AUSTIN
Cockrell School of Engineering Resume

FULL NAME: Preston Scot Wilson

TITLE: Professor

ENDOWED POSITION: Paul D. and Betty Robertson Meek Centennial Professor in Engineering

DEPARTMENT: Walker Department of Mechanical Engineering

SPOUSE'S NAME: Lila R. Wilson

CITIZENSHIP: United States of America

EDUCATION:

Ph.D., Mechanical Engineering, Boston University, Boston, MA, 2002

M.S., Mechanical Engineering, The University of Texas at Austin, Austin, TX, 1994

B.S., Mechanical Engineering, The University of Texas at Austin, Austin, TX, 1990

CURRENT AND PREVIOUS ACADEMIC POSITIONS:

2016–present, Assistant Graduate Advisor, Mechanical Engineering Department, The University of Texas at Austin.

2015–present, Professor, The University of Texas at Austin Mechanical Engineering Department.

2015–present, Research Professor, The University of Texas at Austin Applied Research Labs.

2009–2015, Associate Professor, The University of Texas at Austin Mechanical Engineering Department.

2009–2015, Associate Research Professor, The University of Texas at Austin Applied Research Labs.

2003–2009, Assistant Professor, The University of Texas at Austin Mechanical Engineering Department

2003–2009, Assistant Research Professor, The University of Texas at Austin Applied Research Labs.

2002–2003, Post-Doctoral Research Fellow, Boston University

PAST ENDOWED POSITIONS:

2016–2018, Raymond F. Dawson Centennial Fellow in Engineering, Cockrell School of Engineering

2012–2015, Fluor Centennial Teaching Fellow in Engineering #2, Cockrell School of Engineering

OTHER PROFESSIONAL EXPERIENCE:

1994–1997, Research Scientist Associate, The University of Texas at Austin Applied Research Laboratories.

CONSULTING:

Ultrasonic Power Corporation; Freeport, IL (2003)

Fail Safe Products, LLC; Ormond Beach, FL (2004–2005, 2008)

SONE Technologies; Houston, TX (2004)

Austin Robot Technology (2005–2006)

Astrowatt, Inc., Austin, TX (Summer 2009)

Fail Safe Products, LLC, Ormand Beach, FL (Spring 2010)

IMS Expert Services (Fall 2010)

CiDRA (Summer 2011, Summer 2012, Fall 2012)

Meredith Perry for uBeam, consulting on acoustics transducers and nonlinear acoustic propagation. (Fall 2012, Spring 2013)

National Geographic, consulting on article about underwater sound. (Fall 2012)

HRL, Inc., consulting on acoustic meta-materials measurements. (Fall 2012, Spring 2013)

Sebacia, Inc., consulting on vibroacoustic response of medical device. (Spring 2013)

Shell Global Solutions via AdBm, Inc., consulting on acoustic leak detection. (Fall 2014, Spring 2015–Fall 2015)

NASA-JSC via AdBm, Inc., consulting on underwater noise abatement for Neutral Buoyancy Lab. (Spring 2015)

Invictus Medical, contributed to NSF SBIR proposal, and worked as a consultant on active noise control for NICU (2016–present)

City of Austin, provided acoustic expertise and recorded bird activity and ambient noise (2016–2023).

Oak Ridge Associated Universities, Oak Ridge, TN, served on academic proposal review board (Spring 2020–2022).

U.S. Army Corps of Engineers ERDC, served on technical proposal review board (Spring 2020–2022).

State of Louisiana, Board of Regents, served on academic proposal review board (Spring 2020–2022).

Pro Bono CONSULTING for the ARTS:

Between Music: Aquasonic, consulting on underwater music performance. (Fall 2015–present)

<http://betweenmusic.dk/aquasonic>

Silent Room, consulting on acoustic treatment of commissioned art installation. (Spring 2016)

<http://simonheijdens.com/silent/>

Professor Nicolai & Dr. Beckand, a popular Dutch TV show on science-related topics, consulted on playing terrestrial musical instruments underwater. (Spring 2018), <https://www.rtl.nl/gemist/professor-nicolai-dr-beckand/>

HONORS AND AWARDS (significant awards highlighted):

1. Physical Acoustics Summer School Fellowship, Acoustical Society of America (2000)
2. John H. and Helen C. Fitzgerald Award, Boston University College of Engineering (2001)
3. The Future of Acoustics Celebration Day Speaker, The Acoustical Society of America (2004)
4. **Ocean Acoustics Entry-Level Faculty Award**, Office of Naval Research (2005)
5. Outstanding Thesis/Report Award won by co-supervised student, H. John Camin III, Office of Graduate Studies, UT Austin (2005)
6. **A B Wood Medal**, Institute of Acoustics of the UK (2007) [International early career award for underwater acoustics.]
7. Best Student Presentation Award won by co-supervised student, Christopher Wilson, Marine Science Institute Texas Bays and Estuaries Meeting (2009)
8. Second Most Downloaded JASA Paper, April 2011: J. Acoust. Soc. Am. **129**, EL101–EL107 (2011).
9. Wilson's start-up company (AdBm Technologies, LLC), spun out of sponsored research at UT Austin, won a \$100k Entrepreneurial Award from Founder.org [<http://www.founder.org/100k/>].
10. Most Downloaded JASA Paper, October 2013: "Ultrasonic measurements of the reflection coefficient at a water/polyurethane foam interface," J. Acoust. Soc. Am. **134**, EL271–EL275 (2013).
11. **Elected Fellow of the Acoustical Society of America**, December 2013
12. Best Student Paper Award won by co-supervised student, Mustafa Abbasi, 166th Meeting of the Acoustical Society of America (2013)
13. Selected and participated as Lecturer for Physical Acoustics Summer School 2014.
14. Was a monthly "Most Downloaded" JASA-EL Paper, continuously from August 2014 through October 2016: "Coffee roasting acoustics," J. Acoust. Soc. Am. **135**, EL265–EL269 (2014).
15. Best Student Paper Award won by student, Craig Dolder, 167th Meeting of the Acoustical Society of America (2014)
16. Selected and participated as Lecturer for Physical Acoustics Summer School 2016.
17. **Elected to Executive Council** of the Acoustical Society of America, Spring 2016.
18. Best Student Paper Award won by student, Colby Cushing, 172nd Meeting of the Acoustical Society of America (2016)
19. Best Student Paper Award won by student, Mathew Zeh, 172nd Meeting of the Acoustical Society of America (2016)
20. MS Student Daniel Hemme won the Martin Hirschorn / IAC Prize from the Institute of Noise Control Engineers (June 2017)
21. PhD Student Andria Salas won best poster award at the Tomography for Scientific Advancement USA 2017 symposium (June 2017)
22. PhD Student Andria Salas selected as a NOAA/Sea Grant John A. Knauss Marine Policy Fellow (June 2017)
23. PhD Student Jay Johnson received the ASA Minneapolis Best Student Paper Award in Animal Bioacoustics—First Prize for the paper "Ultrasonic Transmission Behavior in Posidonia oceanica Rhizomes." (June 2018)
24. Selected and participated as Lecturer for Physical Acoustics Summer School (May 2018)
25. Silver Certificate, Acoustical Society of America, for 25 years of continuous membership (May 2019)
26. **Rossing Prize in Acoustics Education** from the Acoustical Society of America (Dec 2019)

OTHER PROFESSIONAL HIGHLIGHTS (Since 2009):

(Commercialization activities in *italics*.)

1. Participated in Methane in the Arctic Shelf 2009 (MITAS 2009), a multidisciplinary, multi-institutional research expedition in the arctic ocean aboard the Coast Guard icebreaker Polar Sea, during teaching leave, Fall Semester. (2009)
2. Participated in large-scale Office of Naval Research-sponsored field test in Lake Pend Orielle, ID, during teaching leave Fall (2009).
3. Conducted laboratory measurements on samples of seawater collected from the Deepwater Horizon Oil Spill during summer. (2010)
4. Appointed as co-chief scientist for an ongoing, ONR-sponsored Seabed Characterization Experiment. See item 20. (2011)
<http://www.arlut.utexas.edu/sbcex/index.html>
5. Associate Editor, The Journal of the Acoustical Society of America (2011-present)
6. A news article about our work was published in **Scientific American**, September 2011, p. 28. Also appeared online:
<https://www.scientificamerican.com/article.cfm?id=less-bang-more-bubbles>
7. Co-advised student had the first-most-downloaded paper in April 2011, in the Journal of the Acoustical Society of America (2011)
8. News Article, National Geographic website, 2/7/2012
<https://www.nationalgeographic.com/news/energy/2012/02/120207-bubble-curtains-to-protect-whales/>
9. Radio Interview, NPR, 3/22/2012 [<http://kut.org/2012/03/reducing-sound-pollution-to-help-the-sea-creatures/>] (2012)
10. *Sponsored research led to licensing agreement with UT and a start-up company (AdBm Technologies, LLC, <http://adbmtech.com>) was launched to commercialize our underwater noise abatement technology. (March 2012)*
11. News Article about underwater noise abatement research, **National Geographic**, September 2012, print issue.
12. Article about our research, entitled "Bubbles Below the Surface" appeared in The Alcalde (The UT Alumni Mag.), Sept 2012.
13. *AdBm won its first contract and became profitable. (Dec. 2012)*
14. News story about acoustics of the firefighting environment aired on KUT. September 5, 2013.
<http://kut.org/post/sounding-out-better-beacon-firefighters-danger>
15. News story about Acoustics of melting glacier ice appeared in the Daily Texan on December 5, 2013.
<http://www.dailytexanonline.com/news/2013/12/05/scientists-may-be-able-to-monitor-the-rate-of-melting-glaciers>
16. News stories summarizing our work on the acoustics of melting glacier ice appeared on dozens of science websites, including: <http://www.sciencedaily.com/releases/2013/11/131127170103.htm> December 2013.

17. News stories about audience noise exposure during Formula 1 races appeared on dozens of science websites, Dec. 2013 including:
<https://www.telegraph.co.uk/news/science/science-news/10495307/What-a-Formula-1-race-does-to-your-eardrums.html>
 18. News stories about coffee roasting acoustics appeared on dozens of science websites in May 2014, including:
<https://why.org/segments/what-does-the-perfect-cup-of-coffee-sound-like/>
 19. *AdBm's Underwater noise abatement system spun off from our sponsored research and development was tested in the North Sea, at the Butendiek, Eneco Luchterduinen and Amrumbank West offshore wind farms, Summer 2014.*
 20. Served as Chief Scientist on underwater acoustics research cruise, on the R/V Hugh R. Sharp, August 2015.
 21. *Achieved a licensing agreement with Illy Café (Trieste, Italy), to commercialize coffee roasting acoustics technology, Fall 2015.*
 22. Represented ONR the Ocean Acoustics Program at an international workshop on sediment acoustics, The Ocean's Seafloor–One-Bio-Geo System, Hanover, Germany, October 2016.
http://instaar.colorado.edu/~jenkins/VWS_Meeting_Web/
 23. Served as co-Chief Scientist on large-scale, international (participants from five countries), multi-disciplinary (underwater acoustics, oceanography, geophysics, engineering), multi-institutional (14 institutes), ONR-sponsored at sea experiment, involving three research vessels, to study the acoustics of fine-grained sediments, Spring 2017.
 24. *AdBm's Underwater noise abatement system spun off from our sponsored research and development was tested in the support pier demolition phase of the San Francisco Oakland Bay Bridge demolition project. Fall 2017*
<https://abc7news.com/bay-bridge-final-demolition-piers-implosion-closure/4176941/>
 25. *AdBm's Underwater noise abatement system spun off from our sponsored research and development was selected for large scale European off-shore wind installation. Spring 2019*
<https://www.offshorewind.biz/2019/05/02/van-oord-and-adbm-test-new-noise-mitigation-system/>
 26. *Licensing agreement between UT Austin and Roest Coffee around US Patent 10,039,307 B2. Spring 2019*
<https://www.roestcoffee.com>
 27. *AdBm fielded first commercial system with 100% success*
<https://www.vanoord.com/news/2019-another-innovation-construction-offshore-wind-farms>
 28. Served as co-Chief Scientist on large-scale, multi-disciplinary (underwater acoustics, oceanography, geophysics, engineering), multi-institutional (6 institutes), ONR-sponsored at sea experiment, involving two research vessels, to study the acoustics of fine-grained sediments, Spring 2021.
 29. Science news piece highlighting our seagrass research
<https://physicstoday.scitation.org/doi/10.1063/PT.6.1.20210809a/full/>
 30. Served as co-Chief Scientist on large-scale, international (participants from 2 countries), multi-disciplinary (underwater acoustics, oceanography, geophysics, engineering), multi-institutional (11 institutes), ONR-sponsored at sea experiment, involving four research vessels, to study the acoustics of fine-grained sediments, Spring 2022.
 31. *AdBm provided noise abatement for installation of foundation piles for first US offshore wind farm Summer 2023:*
<https://empirereportnewyork.com/first-steel-in-the-water-for-south-fork-as-offshore-wind-gains-us-momentum/>
- \-----New for Academic Year 2023–24-----\-----
32. *AdBm provided noise abatement for installation of foundation piles for the Revolution offshore wind farm, summer 2024:*
<https://swzmaritime.nl/news/2024/07/03/in-pics-boskalis-installs-largest-us-wind-farm-foundation/>

PATENTS: (* indicates licensing fees paid to UT, † indicates royalties received)

1. Abating Low-Frequency Noise Using Encapsulated Gas Bubbles, US Patent 8,689,935, Issued on 4/8/2014.
2. Underwater Noise Abatement Panel and Resonator Structure, US Patent 9,343,059, Issued on 5/17/2016.*,†
3. Underwater Noise Abatement Apparatus and Deployment System, US Patent 9,488,026 B2, Issued on 11/8/2016.*,†
4. Underwater Noise Abatement Panel and Resonator Structure, US Patent 9,607,601 B2, Issued on 3/28/2017.*,†
5. Injection Molded Noise Abatement Assembly and Deployment System, US Patent 9,812,112 B2, Issued on 11/7/2017.*,†
6. Method and Apparatus for Controlling Coffee Bean Roasting, US Patent 10,039,307 B2, Issued on 8/7/2018.*

PATENT APPLICATIONS:

U.S. Patent Application No. 18/597,826.

Title: “Deepwater Resonator Array for Subsea Noise Mitigation.” Filed: March 6, 2024.

-----^-----New for Academic Year 2023–24-----^-----

PROVISIONAL PATENTS:

None right now.

MEMBERSHIPS IN PROFESSIONAL SOCIETIES:

Acoustical Society of America
American Society for Engineering Education
Audio Engineering Society
American Society of Mechanical Engineers

PROFESSIONAL SOCIETY AND MAJOR GOVERNMENTAL COMMITTEES:

Current AY:

Acoustical Society of America, Member, Technical Committee on Signal Processing in Acoustics, (2002-present)
Acoustical Society of America, Member, Technical Committee on Physical Acoustics, (2003-present)
Acoustical Society of America, Member, Committee on Education in Acoustics, (2009-present)
Physical Acoustics Summer School, Member, Organizing Committee, (2014-present)
Acoustical Society of America, Member, Technical Committee on Acoustical Oceanography, (Spring 2014-present)
Acoustical Society of America, Member, Technical Committee on Underwater Acoustics, (Spring 2017-present)
Acoustical Society of America, **Chair, Ethics and Grievances Committee**, (Fall 2019-present)
Acoustical Society of America, Member, Medals and Awards Committee, (Fall 2020-present)

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National Academies of Sciences, Engineering and Medicine: Member, Committee on Ocean Acoustics Education and Expertise, (Spring 2023-present). <https://www.nationalacademies.org/our-work/ocean-acoustics-education-and-expertise#sectionWebFriendly>

Past:

Acoustical Society of America, Member, Committee to Improve Racial Diversity and Inclusion, (Spring 2020-2023)
Acoustical Society of America, Member, Audit Committee, (Spring 2017-May 2019)
Acoustical Society of America, Member, Public Relations Committee, (Spring 2017-May 2019)
Acoustical Society of America, **Chair, Outreach Administrative Council**, (Spring 2017-Spring 2019)
Acoustical Society of America, **Chair, Financial Affairs Council**, (Spring 2018-May 2019)
Acoustical Society of America, **Member, Executive Council**, (June 2016-May 2019)

The above is a membership-elected position and is the governing body of the ASA.

Acoustical Society of America, Curator, Gallery of Acoustics, (1997-2003)
Acoustical Society of America, Member, Vision 2010 Committee, (Fall 2004)
Acoustical Society of America, Member, Technical Committee on Biomedical Acoustics, (2007-2016)
Acoustical Society of America, Member, Regional Chapters Committee, (November 2007-May 2011)
Acoustical Society of America, **Chair, Committee on Education in Acoustics**, (2009-2015)
Acoustical Society of America, Member, Internal Affairs Council, (2009-2015)

CONFERENCES ORGANIZED/CHAired:

A. Symposia and Conference Organizer (meeting-wide service underlined)

-----^---no new entries for Academic Year 2023-24---^-----

37. Co-organizer, special session at the 184th Meeting of the ASA, Underwater Acoustics, Acoustical Oceanography, and Physical Acoustics: Exploring Fine-Grained Sediments in the Variable Ocean I&II, Chicago, IL (Spring 2023).
36. Co-organizer, special session at the 183rd Meeting of the ASA, Musical Acoustics: Modeling and Simulation of Physical Effects in Sound Reproduction, Nashville, TN (Fall 2022).
35. Co-organizer, special session at the 183rd Meeting of the ASA, Physical Acoustics and Education in Acoustics: My Favorite Homework Problems (Based on Measurements, Demonstrations, or Experimental Data), Nashville, TN (Fall 2022).
34. Co-organizer, special session at the 181st Meeting of the ASA, Education in Acoustics: Preview of Next JASA Special Issue on Education in Acoustics, Seattle, WA (Fall 2021).
33. Co-organizer, special session at the 181st Meeting of the ASA, Physical Acoustics, Structural Acoustics and Vibration and Signal Processing in Acoustics: The Impact of Logan Hargrove on Physical Acoustics and Beyond, Seattle, WA (Fall 2021).
32. Co-organizer, special session at the 175th Meeting of the ASA, Underwater Acoustics and Acoustical Oceanography: Acoustic Seabed Characterization, Minneapolis, MN (Spring 2018).
31. Organizer, special session at the 174th Meeting of the ASA, Education in Acoustics: Undergraduate Research Exposition, New Orleans, LA (Fall 2017).

30. Organizer, special session at the 174th Meeting of the ASA, Underwater Acoustics, Acoustical Oceanography, and Signal Processing in Acoustics: Sediment Characterization Using Direct and Inverse Techniques I, New Orleans, LA (Fall 2017).
29. Organizer, special session at the 174th Meeting of the ASA, Underwater Acoustics, Acoustical Oceanography, and Signal Processing in Acoustics: Sediment Characterization Using Direct and Inverse Techniques II, New Orleans, LA (Fall 2017).
28. Organizer, special session at the 174th Meeting of the ASA, Underwater Acoustics, Acoustical Oceanography, and Signal Processing in Acoustics: Sediment Characterization Using Direct and Inverse Techniques III, New Orleans, LA (Fall 2017).
27. Co-organizer, special session at Underwater Acoustics Conference and Exhibition 2017, Seagrass and macroalgae acoustics, Koukounariés, Skiathos Island, Greece (September 2017).
26. Co-organizer, special session at the The 3rd Joint Meeting of the Acoustical Society of America and the European Acoustics Association, Acoustical Oceanography, Animal Bioacoustics and Underwater Acoustics: Acoustics and Acoustic Ecology of Benthic Communities, Boston, MA (Spring 2017).
25. Co-organizer, special session at the 171st Meeting of the ASA, Underwater Acoustics, Acoustical Oceanography, and Signal Processing in Acoustics: Sediment Characterization Using Direct and Inverse Techniques III, Salt Lake City, UT (Spring 2016).
24. Co-organizer, special session at the 171st Meeting of the ASA, Underwater Acoustics, Acoustical Oceanography, and Signal Processing in Acoustics: Sediment Characterization Using Direct and Inverse Techniques II, Salt Lake City, UT (Spring 2016).
23. Co-organizer, special session at the 171st Meeting of the ASA, Underwater Acoustics, Acoustical Oceanography, and Signal Processing in Acoustics: Sediment Characterization Using Direct and Inverse Techniques I, Salt Lake City, UT (Spring 2016).
22. Co-organizer, special session at the 170th Meeting of the ASA, Education in Acoustics and Musical Acoustics: Effective and Engaging Teaching Methods in Acoustics, Jacksonville, FL (Fall 2015).
21. Co-organizer, special session at the 170th Meeting of the ASA, Education in Acoustics: Undergraduate Research Exposition (Poster Session), Jacksonville, FL (Fall 2015).
20. Organizer, special session at the 168th Meeting of the ASA, Education in Acoustics: Undergraduate Research Exposition, Indianapolis, IN (Fall 2014).
19. Co-organizer, special session at the 168th Meeting of the ASA, Student Council, Education in Acoustics and Acoustical Oceanography: Graduate Studies in Acoustics, Indianapolis, IN (Fall 2014).
18. Co-organizer, special session at the 168th Meeting of the ASA, Acoustical Oceanography, Underwater Acoustics, and Education in Acoustics: Education in Acoustical Oceanography and Underwater Acoustics, Indianapolis, IN (Fall 2014).
17. Co-organizer, special session at the 167th Meeting of the ASA, Education in Acoustics: Tools for Teaching Advanced Acoustics, Providence, RI (Spring 2014)
16. Co-organizer, special session at the 166th Meeting of the ASA, Education in Acoustics: Undergraduate Research Exposition Poster Session, San Francisco, CA (Fall 2013)
15. Co-organizer, special session at the 166th Meeting of the ASA, Education in Acoustics: Engaging and Effective Teaching Methods in Acoustics, San Francisco, CA (Fall 2013)
14. Co-organizer, special session at the 165th Meeting of the ASA, Education in Acoustics: Teaching Methods in Acoustics, Montreal, CA (Spring 2013)
13. Organizer, special session at the 164th Meeting of the ASA, Education in Acoustics: Acoustics Education Prize Lecture, Kansas City, MO (Fall 2012)
12. Co-organizer, special session at the Underwater Acoustics 2013 International Conference and Exhibition, Bill Carey Memorial Session (Spring 2013)
11. Co-organizer, special session at the 164th Meeting of the ASA, Education in Acoustics: Undergraduate Research Exposition, Kansas City, MO (Fall 2012)
10. Co-organizer, special session at the 164th Meeting of the ASA, Education in Acoustics: Engaging and Effective Teaching Methods in Acoustics, Kansas City, MO (Fall 2012)
9. Co-organizer, Global Competitiveness Through Diversity, 2011 Joint Conference NSBP/NSHP, Austin, TX (Summer 2011)
8. Organizer, special session at the 161st Meeting of the ASA, Physical Acoustics, Acoustical Oceanography, and Underwater Acoustics: Acoustics of Gas Hydrates, Seattle, WA (Spring 2011)
7. Organizer, special session at the 160th Meeting of the ASA, Education in Acoustics: Teaching Acoustics in the Americas, Cancun, Mexico (Fall 2010)
6. Organizer, special session at the 160th Meeting of the ASA, Education in Acoustics and ASA Student Council: Project Listen Up, Cancun, Mexico (Fall 2010)
5. Co-organizer, special session at the 159th Meeting of the ASA, Education in Acoustics: Diversity Issues in Education in Acoustics, Baltimore, MD (Spring 2010)
4. Co-organizer, special session at the 159th Meeting of the ASA, Education in Acoustics: Homemade Musical Instruments for Teaching Acoustics, Baltimore, MD (Spring 2010)
3. Organizing Committee, 158th Meeting of the Acoustical Society of America, San Antonio, TX (October 26-30, 2009)

2. Co-organizer, special session at the 158th Meeting of the ASA, Underwater Acoustics: Acoustic and Oceanographic Characteristics of Continental Shelves, San Antonio, TX (Spring 2009-Fall 2009)
1. Organizing Committee, 146th Meeting of the Acoustical Society of America, Austin, TX (November 10-14, 2003)

B. Session Chairperson

-----^---No new entries for Academic Year 2023-24---^-----

45. Session co-chair at the 184th Meeting of the ASA, Underwater Acoustics, Acoustical Oceanography, and Physical Acoustics: Exploring Fine-Grained Sediments in the Variable Ocean I&II, Chicago, IL (Spring 2023).
44. Session co-chair at the 183rd Meeting of the ASA, Musical Acoustics: Modeling and Simulation of Physical Effects in Sound Reproduction, Nashville, TN (Fall 2022).
43. Session co-chair at the 183rd Meeting of the ASA, Physical Acoustics and Education in Acoustics: My Favorite Homework Problems (Based on Measurements, Demonstrations, or Experimental Data), Nashville, TN (Fall 2022).
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37. Session co-chair at the 174th Meeting of the ASA, Underwater Acoustics, Acoustical Oceanography, and Signal Processing in Acoustics: Sediment Characterization Using Direct and Inverse Techniques II, New Orleans, LA (Fall 2017).
36. Session co-chair at the 174th Meeting of the ASA, Underwater Acoustics, Acoustical Oceanography, and Signal Processing in Acoustics: Sediment Characterization Using Direct and Inverse Techniques III, New Orleans, LA (Fall 2017).
35. Session co-chair at at Underwater Acoustics Conference and Exhibition 2017, Seagrass and macroalgae acoustics, Koukounariés, Skiathos Island, Greece (September 2017).
34. Session co-chair at the The 3rd Joint Meeting of the Acoustical Society of America and the European Acoustics Association, Acoustical Oceanography, Animal Bioacoustics and Underwater Acoustics: Acoustics and Acoustic Ecology of Benthic Communities, Boston, MA (Spring 2017).
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32. Session co-chair at the 171st Meeting of the ASA, Underwater Acoustics, Acoustical Oceanography, and Signal Processing in Acoustics: Sediment Characterization Using Direct and Inverse Techniques II, Salt Lake City, UT (Spring 2016).
31. Session co-chair at the 171st Meeting of the ASA, Underwater Acoustics, Acoustical Oceanography, and Signal Processing in Acoustics: Sediment Characterization Using Direct and Inverse Techniques I, Salt Lake City, UT (Spring 2016).
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29. Session co-chair at the 170th Meeting of the ASA, Education in Acoustics: Undergraduate Research Exposition (Poster Session), Jacksonville, FL (Fall 2015).
28. Session Chair, Acoustical Society of America, Education in Acoustics: Undergraduate Research Exposition, Indianapolis, IN (Fall 2014)
27. Session Chair, Acoustical Society of America, Student Council, Education in Acoustics and Acoustical Oceanography: Graduate Studies in Acoustics, Indianapolis, IN (Fall 2014).
26. Session Chair, Acoustical Society of America, Acoustical Oceanography, Underwater Acoustics, and Education in Acoustics: Education in Acoustical Oceanography and Underwater Acoustics, Indianapolis, IN (Fall 2014).
25. Session Chair, Acoustical Society of America, Education in Acoustics and Physical Acoustics: Tools for Teaching Advanced Acoustics, Providence, RI (May 2014)
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21. Session Chair, Acoustical Society of America, Education in Acoustics: Acoustics Education Prize Lecture, Kansas City (Oct 2012)

20. Session Co-chair, Underwater Acoustics 2013 International Conference and Exhibition, Bill Carey Memorial Session (June 2013)
19. Session Chair, Acoustical Society of America, Education in Acoustics: Engaging and Effective Teaching Methods in Acoustics, Kansas City (Oct 2012)
18. Session Chair, Acoustical Society of America, Education in Acoustics: Undergraduate Research Exposition, Kansas City (Oct 2012)
17. Session Chair, Acoustical Society of America, Education in Acoustics: Acoustics Education Prize Lecture, Kansas City (Oct 2012)
16. Session Co-Chair, Acoustical Society of America, Education in Acoustics: Teaching Acoustics on Both Sides of the Pacific I, Hong Kong (May 2012)
15. Session Co-Chair, Acoustical Society of America, Education in Acoustics: Teaching Acoustics on Both Sides of the Pacific II, Hong Kong (May 2012)
14. Session Co-Chair, Acoustical Society of America, Physical Acoustics and Engineering Acoustics: Emerging Technologies and Concepts in Ultrasonics, Hong Kong (May 2012)
13. Session Co-Chair, Acoustical Society of America, Education in Acoustics and Physical Acoustics: Undergraduate Research Exposition, San Diego, CA (November 2011)
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9. Session Co-Chair, Acoustical Society of America, Education in Acoustics: Teaching Acoustics in the Americas II, Cancun, Mexico (November 2010)
8. Session Co-Chair, Acoustical Society of America, Diversity Issues in Education in Acoustics, Baltimore, MD (April 2010)
7. Session Co-Chair, Acoustical Society of America, Homemade Musical Instruments for Teaching Acoustics, Baltimore, MD (April 2010)
6. Session Co-Chair, Acoustical Society of America, Acoustic and Oceanographic Characteristics of Continental Shelves, San Antonio, TX (Fall 2009)
5. Session Chair, Acoustical Society of America, Acoustic Applications for Storm and Hurricane Preparedness, New Orleans, LA (November 27, 2007)
4. Session Chair, Acoustical Society of America, Acoustic Landmine Detection, Austin, TX (November 10-14, 2003)
3. Session Co-Chair, Acoustical Society of America, Ultrasound Contrast Agents, Austin, TX (November 10-14, 2003)
2. Session Chair, Acoustical Society of America, Physical Acoustics, General Linear Acoustics (December 2002)
1. Session Chair, Acoustical Society of America, Underwater Acoustics, Object Scattering & Imaging (December 2001)

UNIVERSITY COMMITTEES:

The University of Texas at Austin, Graduate School's Outstanding Thesis/Report Award Committee, (Spring 2006, Spring 2009)

COLLEGE COMMITTEES:

The University of Texas at Austin, Cockrell School of Engineering, Engineering Awards Committee, (2015–2018)

DEPARTMENT COMMITTEES:

Current AY:

Mech. Eng. Dept.: Member, Awards Committee, (Fall 2022–present)

Mech. Eng. Dept.: Member, ME Building Renovation Committee, (Fall 2022–present)

Mech. Eng. Dept.: Acoustics Qualifying Exam Committee, (Fall 2003–present)

Past:

Mech. Eng. Dept.: New Faculty Launch Committee, (Fall 2022–Spring 2023)

Civil. Eng. Dept.: External Member, Faculty Hiring Committee Sustainable Oceans Position, (Fall 2021–Spring 2022)

Mech. Eng. Dept.: Member, Strategic Faculty Hiring Committee, (Spring 2013–Spring 2022)

Mech. Eng. Dept.: **Chair, Emerging Areas Faculty Hiring Committee**, (Fall 2015–2020)

Mech. Eng. Dept.: **Chair, Graduate Student Recruiting Committee**, (Fall 2016–2018)

Mech. Eng. Dept.: Member, Emerging Areas Faculty Hiring Committee, (Fall 2014–Spring 2015)

Mech. Eng. Dept.: Member, MEMS/NEMS Faculty Recruiting Committee, (Fall 2012–Spring 2013)

Mech. Eng. Dept.: Member, ME 318 Curriculum Sub-committee, (Spring 2013–2016)
Mech. Eng. Dept.: ME Web Design Committee, (Fall 2006–2007)
Mech. Eng. Dept.: Safety Committee, (Spring 2005–Spring 2012)
Mech. Eng. Dept.: Graduate Student Recruitment Committee for DS&C, (Fall 2005–Spring 2010)
Mech. Eng. Dept.: Graduate Student Recruitment Committee for Acoustics, (Fall 2003–Spring 2016)
Mech. Eng. Dept.: Dynamic Systems & Controls Ph.D. Qualifying Exam Committee, (Fall 2003–Fall 2013)

PUBLICATIONS (students, former students, post-docs and former post-docs underlined):

A. Refereed Archival Journals

In prep:

110. Stan E. Dosso, Julien Bonnel and Preston S. Wilson, “Comparison of matched-field and modal-dispersion inversion for seabed geoacoustic profiles at the New England Mud Patch,” *J. Acoust. Soc. Am.*, (in prep Sept 2024).
109. Matthew C. Zeh, Erin C. Pettit, Megan S. Ballard, Preston S. Wilson and Jason M. Amundson, “The influence of ice coverage, calving, and melt on underwater ambient sound in a glacierized fjord,” *Journal of Geophysical Research: Earth Surface*, (in prep Sept 2024).
108. Kevin M. Lee, Kelly M. Dorgan, Gabriel R. Venegas, Jason D. Chaytor, Megan S. Ballard, Andrew R. McNeese, and Preston S. Wilson, “Investigation of surficial seabed heterogeneity and geoacoustic variability in the New England Mud Patch,” *J. Acoust. Soc. Am.*, (in prep Sept 2024).

In review:

107. Kyle A. Capistrant-Fossa, Megan S. Ballard, Kevin M. Lee, Colby W. Cushing, Andrew R. McNeese, Thomas S. Jerome, Preston S. Wilson, and Kenneth H. Dunton, “Acoustic Monitoring of Oxygen Ebullition Reveals Hidden Productivity in a Seemingly Heterotrophic Seagrass Meadow,” *Ocean-Land-Atmosphere Research*, (in review Sept 2024).
106. Kevin Lanza, Brendan Allison, Baojiang Chen; Preston S Wilson; Ethan T Hunt, Kathryn Burford, Yuzi Zhang, Leigh Ann Ganzar, and Timothy H Keitt, “Ambient environmental exposures while cycling on a vegetated trail versus the road,” *Journal of Transport and Health*, (in review Sept 2024).
105. Huiliang Wang, Kai Wing Tang, Jinmo Jeong, Ju-Chun Hsieh, Mengmeng Yao, Hong Ding, Wenliang Wang, Xiangping Liu, Ilya Pyatnitskiy, Weilong He, William Moscoso-Barrera, Anakaren Lozano, Brinkley Artman, Heevong Huh, Preston Wilson, “Bioadhesive Hydrogel-Coupled and Miniaturized Ultrasound Transducer System for Long-Term, Wearable Neuromodulation,” *Nature Biomedical Engineering*, (in review Sept 2024).
104. Ariel Vardi, Peter Dahl, David Dall’Osto, David Knobles, Preston S. Wilson, John Leonard, and Julien Bonnel, “Estimation of the spatial variability of the New England Mud Patch geoacoustic properties using a distributed array of hydrophones and deep learning,” *J. Acoust. Soc. Am.*, (in review Sept 2024).

In revision:

103. Megan S. Ballard, Kevin M. Lee, Kyle A. Capistrant-Fossa, Andrew R. McNeese, Colby W. Cushing, Thomas S. Jerome, Robert T. Taylor, Kenneth H. Dunton, and Preston S. Wilson, “A multi-year study of acoustic propagation and ambient sound in a *Thalassia testudinum* seagrass meadow in a shallow sub-tropical lagoon,” *J. Acoust. Soc. Am.*, (in revision Sept 2024).
102. Megan S. Ballard, Dante D. Garcia, Kevin M. Lee, Gabriel R. Venegas, Andrew R. McNeese, Preston S. Wilson, and Jason D. Chaytor, “Direct measurements of sediment geoacoustic properties in the New England Mud Patch and Shelf Break,” *J. Acoust. Soc. Am.*, (in revision Sept 2024).
101. Alexandra M. Hopps-McDaniel, Tracianne B. Neilsen, D. P. Knobles, William S. Hodgkiss, Preston S. Wilson, and Jason D. Sagers, “Deep sediment heterogeneity inferred using very low-frequency features from merchant ships,” *J. Acoust. Soc. Am.*, (in revision, Sept 2024).

Accepted/In Press:

100. Sasek J, Allison B, Contina A, Knobles D, Wilson P, Keitt T. Semiautomated generation of species-specific training data from large, unlabeled acoustic datasets for deep supervised birdsong isolation. *PeerJ* 12:e17854 <https://doi.org/10.7717/peerj.17854>, (in press, Sept 2024).

Published (students, former students, post-docs and former post-docs underlined):

99. Julien Bonnel, Stan E. Dosso, William S. Hodgkiss, Megan S. Ballard, Dante D. Garcia, Kevin M. Lee, Andrew R. McNeese, Preston S. Wilson; “Trans-dimensional inversion for seafloor properties for three mud depocenters on the New

England shelf under dynamical oceanographic conditions.” *J. Acoust. Soc. Am.* **155**, p. 1825–1839 (2024).
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98. Nicholas A. Torres, Megan S. Ballard, Kevin S. Lee, Preston S. Wilson, Christina J. Naify, and Aytahn Ben-avi, “Characterizing the acoustic response of *Thalassia testudinum* leaves using resonator measurements and finite element modeling.” *J. Acoust. Soc. Am.* **153**, p. 678–688 (2023).
Published Online: 27 January 2023: <https://doi.org/10.1121/10.0017000>
97. K. M. Lee, M. S. Ballard, A. R. McNeese, P. S. Wilson, G. R. Venegas, M. C. Zeh, and A. F. Rahman, “Inter-seasonal comparison of acoustic propagation in a *Thalassia testudinum* seagrass meadow in a shallow sub-tropical lagoon,” *JASA Express Lett.* **3**, 010801 (2023).
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96. G. M. Hutchinson, P. S. Wilson, S. Sommerfeldt, and K. Ahmad, “Incubator-based active noise control device: comparison to ear covers and noise reduction zone quantification,” *Pediatr Res* (2023).
Published Online: 06 July 2023: <https://doi.org/10.1038/s41390-023-02708-w>
95. D. A. Russell and P. S. Wilson, “Introduction to the special issue on education in acoustics,” *J. Acoust. Soc. Am.* **152**, p. 3102–3106 (2022).
Published Online: 29 November 2022: <https://doi.org/10.1121/10.0015273>
94. Julien Bonnel, Andrew R. McNeese, Preston S. Wilson, and Stan E. Dosso, “Geoacoustic Inversion Using Simple Hand-Deployable Acoustic Systems,” *IEEE Journal of Oceanic Engineering* **48**, p. 592–603 (2023).
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93. Chen Shen, Charles Rohde, Colby W. Cushing, Junfei Li, Zheng Jie Tan, Huifeng Du, Xiuyuan Peng, Preston S. Wilson, Michael R. Haberman, Nicholas X. Fang, and Steven A. Cummer, “Anisotropic Metallic Microlattice Structures for Underwater Operations,” *Advanced Engineering Materials* **25**, 2201294 (2022).
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91. Preston S. Wilson, David P. Knobles, and Tracianne B. Neilsen, “Guest Editorial: Continued Exploration of Fine-Grained Sediments from SBCEX2017,” *IEEE J. of Oceanic Engineering* **47**, p. 497–502 (2022).
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90. Mustafa Z. Abbasi, Preston S. Wilson and Ofodike A. Ezekoye, “Ray tracing and finite element modeling of sound propagation in a compartment fire,” *J. Acoust. Soc. Am.* **151**, p. 3177–3188 (2022)
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Selected as issue 687’s Feature Article: <https://www.int-res.com/abstracts/meps/v687>
88. Matthew C. Zeh, Megan S. Ballard, Oskar Glowacki, Grant B. Deane, Preston S. Wilson, “Model-data comparison of sound propagation in a glacierized fjord with a simulated brash ice surface,” *J. Acoust. Soc. Am.* **151**, p. 2367–2377 (2022)
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 81. Jay R. Johnson, Preston S. Wilson, and Jean-Pierre Hermand, “Variability of the low-frequency acoustic response along leaf blades and between species of seagrass (*Posidonia oceanica* and *Cymodocea nodosa*),” *JASA Express Lett.* **1**, 080801 (2021).
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 80. Logan S. James, Wouter Halfwerk, Kimberly L. Hunter, Rachel A. Page, Ryan C. Taylor, Preston S. Wilson, and Michael J. Ryan, “Covariation among multimodal components in the courtship display of the Túngara frog,” *J. of Experimental Biology* **224**, jeb241661 (2021).
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 79. J. Bonnel, S. E. Dosso, D. P. Knobles, and P. S. Wilson, “Transdimensional Inversion on the New England Mud Patch Using High-Order Modes,” *IEEE J. of Oceanic Engineering* **47**, p. 607–619 (2022).
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 76. J. Bonnel, S. E. Dosso, J. A. Goff, Y. T. Lin, J. H. Miller, G. R. Potty, P. S. Wilson, and D. P. Knobles, “Transdimensional geoacoustic inversion using prior information on range-dependent seabed layering,” *IEEE J of Oceanic Engineering* **47**, p. 594–606 (2022)
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 75. Colby W. Cushing, Preston S. Wilson, Michael R. Haberman, Chen Shen, Junfei Li, Steven A. Cummer, Zheng Jie Tan, Chu Ma, Huifeng Du, and Nicholas X. Fang, “Characterization of an underwater metamaterial made of aluminum honeycomb panels at low frequencies,” *J. Acoust. Soc. Am.* **149**, p. 1829–1837 (2021).
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 71. Megan S. Ballard, Kevin M. Lee, Jason D. Sagers, Gabriel R. Venegas, Andrew R. McNeese, Preston S. Wilson, and Abdullah F. Rahman, “Application of acoustical remote sensing techniques for ecosystem monitoring of a seagrass meadow,” *J. Acoust. Soc. Am.* **147**, 2002–2019 (2020).
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 69. Preston S. Wilson, David P. Knobles, and Tracianne B. Neilsen, “Guest Editorial An Overview of the Seabed Characterization Experiment,” *IEEE Journal of Oceanic Engineering* **45**, 1–13 (2020).
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-----V-----New for Academic Year 2023–24-----V-----

*The proceedings papers 51–53 below appear in a journal that begins to accrue content for a particular issue at the end of the conference. The journal dates the issue to coincide with the conference date. The journal continues to accept submissions for each issue for some time after the end of the conference. Hence these papers were actually published after the date of the citation, as stated in the line below the citation, and in the online record of the publication.

51. Thomas S. Jerome, Megan S. Ballard, Kevin M. Lee, Colby W. Cushing, Kyle A. Capistrant-Fossa, Andrew R. McNeese, Preston S. Wilson, Kenneth H. Dunton, “Effective medium modeling of acoustic propagation in a seagrass meadow.” *Proc. Mtgs. Acoust.* **51**:010003 (2023).
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C. Other Major Publications

1. Preston S. Wilson and Michael S. Howe, *Mathematical Methods For Mechanical Sciences: Model Answers*, May 2000, published by Boston University, (a solutions manual for a text book)
 2. Alejandro J. Martinez, Preston S. Wilson, Matthew J. Hall and Ronald D. Matthews, “Improved Passage Design for a Spark Plug Mounted Pressure Transducer,” *Combustion And Flow Diagnostics, 2007*, 2007, pp 113-129, published by SAE International , Warrendale, PA, (SAE Publication No. SP-2075)
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- V-----New for Academic Year 2023–24-----V-----
7. Peer-reviewed consensus study report: Jennifer Miksis-Olds, Andrea Arguelles, Arthur Baggeroer, Liesl Hotaling, Wu-Jung Lee, Carolyn Ruppel, Gail Scowcroft and Preston Wilson, *Ocean Acoustics Education and Expertise*. Washington, DC: The National Academies Press (2024).
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D. Non-refereed Conference Proceedings

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6. AIAA Journal
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7. Preston S. Wilson, “Acoustic Scattering from an Elastic Tube Filled with Bubbly Liquid,” Mechanical Engineering Department at The University of Texas at Austin, September 12, 2003
8. Preston S. Wilson, “Acoustic scattering from bubble clouds: An overview of modeling and experiment with artificially generated clouds,” Applied Research Laboratory at the Pennsylvania State University, April 16, 2004
9. Preston S. Wilson, “The Acoustics of Multiphase Media,” The Office of Naval Research Ocean Acoustics Office, Arlington, VA, May 6, 2004
10. Preston S. Wilson, “The future of physical, engineering and ocean acoustics,” Celebration Day of the 75th Anniversary meeting the Acoustical Society of America, May 26, 2004
11. Preston S. Wilson, “The Interesting Effects of Added Complexity: The Acoustics of Elastic Waveguides and Liquid-Filled Impedance Tubes,” Acoustics Seminar, ME Dept., The University of Texas at Austin, September 10, 2004
12. Preston S. Wilson, Jed C. Wilbur, Ronald A. Roy and William M. Carey, “Evidence of dispersion in a water-saturated granular sediment,” Oceans ‘05 Europe IEEE Conference, Brest, FR, June 21, 2005
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17. Anne M. Mayoral and Preston S. Wilson, “Detection and Classification of Time Critical Targets Using Seismic Sensors,” National Center for Physical Acoustics Tunnel Detection Conference, February 2007
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B. Contributed Conference Presentations

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249. Julien Bonnel, Stan Dosso, Andrew R. McNeese, and Preston S. Wilson, "One track, two experiments four years apart: On the repeatability of geoacoustic inversion on the New England Mud Patch," *J. Acoust. Soc. Am.* **152**, p. A144 (2022). [<https://doi.org/10.1121/10.0015836>]
250. Megan Ballard, Kevin M. Lee, Kyle Capistrant-Fossa, Andrew R. McNeese, Prithika Sen, Thomas S. Jerome, Preston S. Wilson, and Kenneth H. Dunton, "A yearlong record of acoustic propagation and ambient sound in a seagrass meadow," *J. Acoust. Soc. Am.* **152**, p. A107 (2022). [<https://doi.org/10.1121/10.0015702>]
251. Megan Ballard, Michael R. Haberman, Neal A. Hall, Mark F. Hamilton, Tyrone M. Porter, and Preston S. Wilson, "Graduate acoustics education in the Cockrell School of Engineering at The University of Texas at Austin," *J. Acoust. Soc. Am.* **152**, p. A124 (2022). [<https://doi.org/10.1121/10.0015759>]
252. Colby W. Cushing, Megan S. Ballard, Kevin M. Lee, Andrew R. McNeese, Kyle A. Capistrant-Fossa, Prithika Sen, Thomas S. Jerome, Preston S. Wilson, Kenneth H. Dunton, "Long-term monitoring of seagrass meadows using acoustical methods," Presented at Texas Bays and Estuaries Meeting TBEM22, 21 September 2022, Patton Marine Science Education Center at the University of Texas Marine Science Institute (2022). [<https://texasbaysandestuaries.com/>]

253. David P. Knobles, Tracianne B. Neilsen, William Hodgkiss, Preston S. Wilson, and James H. Miller, “Mid-frequency sound propagation over a mud seabed with a compressional sound speed depth gradient,” *J. Acoust. Soc. Am.* **153**, p. A86 (2023). [<https://doi.org/10.1121/10.0018260>]
254. David P. Knobles, Julien Bonnel, William Hodgkiss, Preston S. Wilson, and Tracianne B. Neilsen, “Inferences of seabed characterization in a variable ocean environment,” *J. Acoust. Soc. Am.* **153**, p. A176 (2023). [<https://doi.org/10.1121/10.0018574>]
255. Cushing Colby W., Jerome Thomas S., Ballard Megan S., Lee Kevin M., Naify Christina J., Allison Jared A., Capistrant-Fossa Kyle A., McNeese Andrew R., Wilson Preston S., Dunton Kenneth H., “Using effective medium modeling and additive manufacturing to evaluate acoustic behavior of seagrasses,” presented at Underwater Acoustics Conference and Exhibition 2023 UACE2023, 29 June 2023, Kalamata, Greece (2023). [https://www.uaconferences.org/component/contentbuilder/37/entry?search_form_id=37&Itemid=504]
256. Thomas S. Jerome, Megan Ballard, Kevin M. Lee, Colby W. Cushing, Kyle Capistrant-Fossa, Andrew R. McNeese, Preston S. Wilson, and Kenneth H. Dunton, “Effective medium modeling of acoustic propagation in a seagrass meadow,” *J. Acoust. Soc. Am.* **153**, p. A62 (2023). [<https://doi.org/10.1121/10.0018168>]
- √-----Below are new for Academic Year 2023–24-----√-----
257. Jade F. Lopez Case, James H. Miller, Gopu R. Potty, Andrew R. McNeese, Preston S. Wilson, David P. Knobles, “Effect of a low sound speed sediment layer on seismo-acoustic propagation in the New England Mud Patch.” *J. Acoust. Soc. Am.* **154**:A167 (2023).
Published Online Oct. 1, 2023. [<https://doi.org/10.1121/10.0023152>]
258. Dante D. Garcia, Preston S. Wilson, Megan S. Ballard, Kevin M. Lee, Jason D. Chaytor, “*In situ* measurements of sediment shear wave speed from the New England Mud Patch and shelf break areas using the acoustic coring system.” *J. Acoust. Soc. Am.* **154**:A167 (2023).
Published Online Oct. 1, 2023. [<https://doi.org/10.1121/10.0023153>]
259. Wesley E. Olson, Tracianne B. Neilsen, David P. Knobles, Jason D. Sagers, Preston S. Wilson, “Convolutional neural networks for signal identification and extraction and seabed classification.” *J. Acoust. Soc. Am.* **155**:A46 (2024).
Published Online March 1, 2024. [<https://doi.org/10.1121/10.0026748>]
260. Alexandra M. Hopps-McDaniel, David P. Knobles, Tracianne B. Neilsen, Preston S. Wilson, William Hodgkiss, Jason D. Sagers, “Deep sediment characterization from very low-frequency features from merchant ships.” *J. Acoust. Soc. Am.* **155**:A173 (2024).
Published Online March 1, 2024. [<https://doi.org/10.1121/10.0027211>]
261. Alicia Casacchia, Megan Ballard, Kevin M. Lee, Preston S. Wilson, Nicholas P. Chotiros, “The effect of salinity on the rigidity and settling behavior of reconstituted water-saturated kaolinite sediments.” *J. Acoust. Soc. Am.* **155**:A173 (2024).
Published Online March 1, 2024. [<https://doi.org/10.1121/10.0027212>]
262. Kevin M. Lee, Megan Ballard, Andrew R. McNeese, Gabriel R. Venegas, Jason Chaytor, Kelly M. Dorgan, Preston S. Wilson, “Biogeoacoustic variability in muddy ocean bottom sediment.” *J. Acoust. Soc. Am.* **155**:A173. (2024).
Published Online March 1, 2024. [<https://doi.org/10.1121/10.0027215>]
263. Robert T. Taylor, Megan Ballard, Colby W. Cushing, Preston S. Wilson, Kevin M. Lee, Andrew R. McNeese, Luis Acuna, Julien Bonnel, “Evaluating the directivity of compact underwater acoustic recording devices.” *J. Acoust. Soc. Am.* **155**:A343–A344. (2024).
Published Online March 1, 2024. [<https://doi.org/10.1121/10.0027766>]
264. Alicia Casacchia, Matthew J. Uden, Tanya Hutter, Preston S. Wilson, Mark F. Hamilton, “Cryoprotectant agent characterization via acoustical and optical analyses.” *J. Acoust. Soc. Am.* **155**:A344–A345. (2024).
Published Online March 1, 2024. [<https://doi.org/10.1121/10.0027769>]
265. Thomas Jerome, Megan S Ballard, Kevin Lee, Colby Cushing, Kyle A. Capistrant-Fossa, Andrew R McNeese, Preston Wilson, Kenneth H Dunton, “Effective medium modeling of acoustic propagation in a seagrass meadow for an ecosystem monitoring application.” Presented at Ocean Sciences Meeting, New Orleans, LA, 22 February 2024. [<https://agu.confex.com/agu/OSM24/meetingapp.cgi/Paper/1485920>]
265. Megan Ballard, Kevin Lee, Kyle Capistrant-Fossa, Andrew Mcneese, Colby Cushing, Thomas Jerome, Preston Wilson, Kenneth Dunton, “A two-year record of acoustic remote sensing in a seagrass meadow.” Presented at Ocean Sciences Meeting, New Orleans, LA, 23 February 2024. [<https://agu.confex.com/agu/OSM24/meetingapp.cgi/Paper/1459441>]
266. Kelly M Dorgan, Madeline Frey, William Cyrus Clemo, Gabriel Venegas, Kevin Lee, Megan S Ballard and Preston S Wilson, “Impacts of infauna on sediment heterogeneity and acoustic propagation,” Presented at Ocean Sciences Meeting, New Orleans, LA, 23 February 2024. [<https://agu.confex.com/agu/OSM24/meetingapp.cgi/Paper/1486208>]

GRANTS AND CONTRACTS

Career total all awards:.....\$28,312,418

Wilson's share:.....\$19,509,771

Total value of new for AY 23–24 awards:.....\$5,523,893

Wilson's share:.....\$3,631,458

74. *Acoustic Methods for mCDR based on Blue Carbon Burial*
US Department of Energy ARPA-e: 5/22/2024–5/21/2027 \$2,238,393
PI: Preston S. Wilson
73. *Understanding the Complexities and Dynamic Nature of Fine-Grained Ocean-Bottom Sediments and Their Impact on Shallow Water Acoustic Propagation*
ONR: 8/01/2024–7/31/2027 \$475,000
PI: Preston S. Wilson
72. *Resilient Species and Ecosystems—A Planet Texas 2050 Flagship Project Year 4*
UT Austin Office of the VPR: 9/1/23–8/31/2024 \$147,004
PI: Timothy H. Keitt, Co-PIs: Preston S. Wilson, Anthony Di Fiore and Shalene Jha (Wilson's share: 1/4)
71. *DURIP Deep-Sea Multi-Coring System for Investigation of Coupled Benthic Boundary Layer Processes and Supporting Unified Seabed Model Development*
ONR: 8/01/2024–7/31/2025 \$354,000
PI: Kevin M. Lee, Co-PIs: Preston S. Wilson and Megan S. Ballard (Wilson's share: 1/3)
70. *MURI Towards an integrative understanding of near-surface seabed structure and stability in the deep sea*
ONR: 8/01/2024–7/31/2027 \$2,339,000
PI: Kevin M. Lee, Co-PIs: Preston S. Wilson and Megan S. Ballard (Wilson's share: 1/3)
-----/\---Above are new since start of Academic Year 2023–24---/\-----
69. *Deep Water Noise Abatement Demonstration—Phase 1, Task 3*
Chevron via AdBm Corp: 6/27/23–2/29/2024 \$910,310
PI: Preston S. Wilson
68. *Investigation of Acoustic Scattering from UXO with Long-term Environmental Aging*
US Army Corps of Eng. Strategic Environmental Research and Development Program: 6/27/23–6/27/2025 \$575,981
PI: Kevin M. Lee, Co-PIs: Preston S. Wilson and David Mitlin (Wilson's share: 1/3)
67. *Resilient Species and Ecosystems—A Planet Texas 2050 Flagship Project Year 3*
UT Austin Office of the VPR: 9/01/22–8/31/2023 \$142,521
PI: Timothy H. Keitt, Co-PIs: Preston S. Wilson, Anthony Di Fiore and Shalene Jha (Wilson's share: 1/4)
66. *Deep Water Noise Abatement Demonstration—Phase 1, Task 2*
Chevron via AdBm Corp: 5/1/22–4/30/23 \$332,631
PI: Preston S. Wilson
65. *Seabed Characterization Experiment 2022*
ONR: 1/1/22–12/31/25 \$448,036
PI: Preston S. Wilson
64. *Resilient Species and Ecosystems—A Planet Texas 2050 Flagship Project Year 2*
UT Austin Office of the VPR: 9/01/21–8/31/2022 \$147,000
PI: Timothy H. Keitt, Co-PIs: Preston S. Wilson, Anthony Di Fiore and Shalene Jha (Wilson's share: 1/4)
63. *Resilient Species and Ecosystems—A Planet Texas 2050 Flagship Project Year 1*
UT Austin Office of the VPR: 9/01/20–8/31/2021 \$75,000
PI: Timothy H. Keitt, Co-PI: Preston S. Wilson (Wilson's share: 1/2)
62. *Effects of Benthic Organisms and Organic Matter on Marine Sediment*
ONR: 4/01/21–3/31/2024 \$448,714
PI: Kevin Lee, Co-PI: Preston S. Wilson (Wilson's share: 1/2)
61. *Continued Studies of Complex Multiphase Ocean-Bottom Materials and Associated Effects on Shallow Water Acoustic Propagation*
ONR: 3/29/21–3/28/2024 \$436,798
PI: Preston S. Wilson
60. *Support of Seabed 2021+ Operations and Analysis of Data Collected for Sediment Characterization*
ONR: 3/9/21–3/8/24 \$476,000
PI: Preston S. Wilson
59. *Application of acoustical remote sensing techniques for ecosystem monitoring of a seagrass meadow*
NSF 9/1/20–8/31/22 \$851,568
PI: Megan S. Ballard, co-PIs: Kevin M. Lee and Preston S. Wilson (Wilson's share: 1/3)

58. *Seabed Characterization 2021+*
ONR 7/24/20–7/23/23 \$899,000
PI: Preston S. Wilson
57. *Acoustic propagation in tidewater glacial fjords: a dynamic and extreme underwater environment*
ONR 7/1/20–6/30/23 \$150,000
PI: Preston S. Wilson
56. *Coordination, Organization and Participation in Seabed Characterization 2021+*
ONR 6/18/20–6/17/23 \$75,430
PI: Preston S. Wilson
55. *Acoustic Multi-Corer System for Investigation of Seabed Geoacoustic Variability*
ONR DURIP 6/1/20–5/31/21 \$337,300
PI: Kevin M. Lee, co-PI: Preston S. Wilson (Wilson's share: 1/2)
54. *Using acoustics to explore spatiotemporal dynamics of seagrass meadows*
ARL:UT IR&D 1/1/19–12/31/19 \$124,408
PI: Kevin M. Lee, co-PIs: Megan S. Ballard and Preston S. Wilson (Wilson's share: 1/3)
53. *Underwater acoustic modeling for persistent aquatic living sensors*
DARPA via BBN/Raytheon 10/1/18–9/30/22 \$242,102
52. *An Autonomous Atomic Clock-Based Underwater Acoustic Vector Sensor Platform with In-Buoy Processing and Reporting Capabilities*
ONR DURIP 8/1/18–7/31/20 \$331,592
PI: Jason D. Sagers, co-PI: Preston S. Wilson (Wilson's share: 1/2)
51. *A system for the measurement of the acoustic properties of underwater acoustic metamaterials*
ONR DURIP 6/15/18–6/14/21 \$268,487
PI: Preston S. Wilson, co-PI: Michael R. Haberman (Wilson's share: 1/2)
50. *Measurements for continued proof-of-concept of acoustic and vibration monitoring of wafer fabrication tools*
GIFT from: Lam Research Foundation 3/1/18–12/31/18 \$6,198
PI: Preston S. Wilson, co-PI: Mark F. Hamilton (Wilson's share: 1/2)
49. *Impact of infauna on the acoustic properties of marine sediments*
ONR 3/1/18–8/31/21 \$375,821
PI: Preston S. Wilson, co-PI: Kevin M. Lee (Wilson's share: 1/2)
48. *Acoustics of Complex Multi-phase Ocean-Bottom Materials and Associated Effects on Shallow Water Propagation*
ONR 3/1/18–8/31/21 \$372,766
47. *The Acoustics of Biologically Active Marine Sediments*
ARL:UT IR&D 1/1/18–12/31/18 \$108,573
PI: Kevin M. Lee, co-PIs: Megan S. Ballard and Preston S. Wilson (Wilson's share: 1/3)
46. *Medical Diagnostic Applications of Sonoluminescence*
GIFT from SAWIAGOS Foundation 4/1/17–8/31/21 \$ 76,242
PI: Preston S. Wilson, co-PI Mark F. Hamilton (Wilson's share: 1/2)
45. *Upgrades to the Acoustic Coring System*
ONR DURIP 7/15/17–7/14/18 \$298,705
PI: Megan S. Ballard, co-PIs: Kevin M. Lee and Preston S. Wilson (Wilson's share: 1/3)
44. *Measurements and Modeling of Acoustic Metamatierals, Phase II*
ONR MURI via Duke University 3/29/17–9/30/19 \$500,031
PI: Preston Wilson, co-PI: Michael Haberman (equal split)
43. *Biological Effects on Geoacoustic Properties of Marine Sediments*
ARL:UT IR&D 1/1/17–12/31/17 \$117,566
PI: Kevin M. Lee, co-PIs: Megan S. Ballard and Preston S. Wilson (Wilson's share: 1/3)
42. *Effects of corrosion and biofouling on target resonance scattering*
ARL:UT IR&D 12/1/16–11/30/17 \$25,488
PI: Kevin M. Lee, co-PI: Preston S. Wilson (Wilson's share: 1/2)
41. *Using acoustic techniques to monitor semiconductor manufacturing machines for enhanced reliability and performance*
GIFT from Lam Research Foundation 11/1/16–5/31/18 \$25,000
PI: Preston S. Wilson, co-PI: Mark F. Hamilton (Wilson's share: 1/2)
40. *SBIR Phase I: Underwater acoustic testing of systems for low probability of detection acoustic communications*
ONR via XL Scientific, Inc. 9/1/16–8/31/18 \$45,000
39. *SBIR Phase II: Active Noise Reduction System with Voice Pass-Through*
NSF via Invictus Medical, Inc. 9/1/16–8/31/18 \$735,424.00
PI: George Hutchinson, senior personnel: Preston S. Wilson (Wilson's share: \$33,663)
38. *Seabed Characterization Experiment Survey 2016 and Main Experiment 2017 in the New England Mud Patch*
ONR 4/1/16–12/31/17 \$675,574

37. *Design, Fabrication, and Characterization of Elastic Metamaterials for Mitigation of Impacts*
 ARL:UT IR&D 3/1/16–5/31/18 \$149,929
 PI: Michael R. Haberman, co-PI: Preston S. Wilson (equal two-way split)
36. *Corer Head System for in Situ Compressional and Shear Wave Measurements*
 ONR DURIP 8/15/15–8/14/16 \$213,274
 PI: Megan S. Ballard, co-PI: Preston S. Wilson and Kevin M. Lee (equal three-way split)
35. *Characterization of coastal sediments containing seagrass using in situ geoacoustic measurements and modeling*
 ARL:UT IR&D 8/1/15–12/31/16 \$53,631
 PI: Kevin M. Lee, co-PIs: Megan S. Ballard and Preston S. Wilson (equal three-way split)
34. *Exploiting Non-Linear Acoustical Effects of Air Bubbles For Sonar Object Detection*
 ONR 7/1/15–5/31/17 \$300,000
33. *Survey for ONR Seabed Characteristic Acoustic Experiment*
 ONR 2/1/15–9/30/16 \$99,618
 PI: David P. Knobles, co-PI: Preston S. Wilson (equal split)
32. *Studies of the Acoustics of Multiphase Ocean-Bottom Materials*
 ONR 2/1/15–12/31/17 \$360,000
31. *Design Of Negative Stiffness Metamaterials*
 NSF 11/1/14–10/31/17 \$439,813
 PI: Carolyn C. Seepersad, co-PIs: Preston S. Wilson and Michael R. Haberman (equal three-way split)
30. *On-site Deployment Demonstration of an Underwater Noise Abatement Panel and Acoustic Testing*
 AdBm, Inc. 1/14/14–12/31/16 \$344,845
29. *Acoustics of Songbirds*
 VP for Research, UT Austin 9/1/13–8/31/14 \$662
28. *Scale Model Mud Cellar Noise Abatement Panel Fabrication and Testing*
 AdBm 9/15/13–12/15/14 \$31,921
27. *Measurements and Modeling of Acoustic Metamatierals*
 ONR MURI via Duke University 7/1/13–6/30/19 \$735,760
 PI: Preston Wilson, co-PI: Michael Haberman (equal split)
26. *Structural Logic Phase II*
 DARPA via HRL 3/12/13 2/27/15 \$693,495
 PI: Carolyn Seepersad, co-PIs Preston Wilson and Michael Haberman (equal split three ways)
25. *Evaluation and Enhancement of PASS Effectiveness*
 FEMA via Fire Protection Res. Found. 1/1/12–12/31/14 \$713,000
 PI: Ofodike Ezekoye, co-PI: Preston Wilson (equal split)
24. *Prototype Noise Abatement System for the Kulluk*
 Shell Global Solutions via AdBm, Inc. 12/4/12–12/15/14 \$924,538
23. *Laboratory Studies of the Impact of Fish School Density and Individual Distribution on Acoustic Propagation and Scattering*
 ONR 3/1/11–9/30/15 \$566,921 .
22. *A Proof-of-Concept Bubble Screen for Drilling Ship Noise Abatement II*
 Shell Global Solutions 4/1/11–12/31/14 \$945,315
21. *New Solutions for Improved Energy Absorbing Materials*
 Army Research Office 11/15/10–7/31/12 \$376,644
 Administrative PI: Clark Penrod, Technical co-PIs Preston Wilson, Carolyn Seepersad and Michael Haberman (entire project funding was equal split between the three Technical co-PIs.)
20. *Structural Logic*
 DARPA via HRL 10/1/10–9/30/12 \$704,037
 PI: Carolyn Seepersad, co-PIs Preston Wilson and Michael Haberman (equal split three ways)
19. *Application of Acoustic Inversion Technique to Infer the Location of an Oil Plume From Sound Speed Inhomogenities*
 ARL:UT IR&D 8/1/10 12/31/12 \$109,389
18. *Combustive Sound Source—An Environmentally Friendly Alternative to Explosives for Use in Ocean Acoustics Experiments*
 ONR-DURIP 6/15/10–12/31/11 \$257,510
17. *Laboratory and Field Studies of the Acoustics of Multiphase Ocean Bottom Materials and Their Impact on Shallow Water Propagation*
 ONR 3/1/10–9/30/15 \$515,000
16. *Towards Sonar Sensor Systems for Improved Firefighter Navigation and Object Detection*
 ARL:UT IR&D 1/15/10–12/31/14 \$129,590
 PI: Preston Wilson, co-PI Ofodike Ezekoye (equal split)
15. *Use of CSS for LFA/DCL*
 ARL:UT IR&D 11/3/09–8/31/11 \$55,000
 PI: Preston Wilson, co-PI David Knobles (equal split)
14. *Exploitation of the Nonlinear Acoustics of Bubbly Liquids for Mine Hunting*
 ARL:UT IR&D 8/15/09–3/31/14 \$141,486

13. *The Acoustics of Seagrass*
ARL:UT IR&D 4/15/09–8/31/13 \$41,262
12. *A Proof-of-Concept Bubble Screen for Drilling Ship Noise Abatement*
Shell Int. Exp. & Prod. via TAMU 4/1/09–6/30/11 \$558,686
11. *Special Research Grant: Environmental Monitoring of Estuarine Environments*
VP for Research, UT Ausatin 3/12/09–8/31/09 \$750
10. *Development of the Combustive Sound Source*
Naval Oceanographic Office 10/1/08–9/30/12 \$997,782
co-PI with David Knobles (equal split)
9. *Acoustic Properties of Methane Hydrate*
ONR 2/5/08–8/31/11 \$249,084
8. *Design, Fabrication, and Evaluation of Acoustic and Vibration Absorbing Materials Using Composites with Embedded Bistable Structural Elements*
ARL:UT IR&D 10/1/07–9/1/10 \$126,656
co-PI with Carolyn Seepersad and Michael Haberman (equal split)
7. *Measurements of the Acoustic Properties of Methane Hydrate*
NRL 4/15/07–9/30/09 \$110,000.00
6. *Development of the Combustive Sound Source for Shallow Water Ocean Acoustics Experiments*
ONR 1/1/07–2/28/10 \$21,069.00
5. *Resonator Measurements of Sediment Sound Speeds*
NSWC Panama City 5/4/06–9/30/06 \$15,700
4. *Finite Element Modeling of Long Range, Range Dependent Acoustic Propagation in Shallow Water*
ARL:UT IR&D 1/15/06–10/31/09 \$91,027.00
co-Pi with Marcia Isakson (equal split)
3. *Investigation of the Acoustics of Marine Sediments Using an Impedance Tube*
ONR 2/1/05–2/28/10 \$500,000
2. *Advanced Mathematical Modeling of Sonar-Induced Bubble Growth and Coalescence in Humans and Marine Mammals*
ONR 2/1/05–7/31/08 \$484,495
co-PI with Mark Hamilton (equal split)
1. *Experimental Investigation of Acoustically Coupled Bubbles in High-Amplitude Sound Fields*
ARL:UT IR&D 8/1/04–8/31/06 \$96,000

RESEARCH TOPICS:

Physical Acoustics, Underwater Acoustics, Engineering Acoustics, Animal Bioacoustics. Primarily experimental studies often focused on understanding or exploiting the acoustics of multiphase materials. Air bubbles in water, water-saturated marine sediments, gas-bearing sediments, seagrass, methane hydrates. Both laboratory and *in situ* studies. Sound propagation in shallow water waveguides. Acoustic remote sensing of the marine environment. The effect of underwater sound on marine mammals and fish schools. The use of large encapsulated bubbles to abate underwater anthropogenic noise. Novel transduction. Novel sound and vibration reduction through the use of meta-materials. The use of acoustics in firefighting applications. Acoustic radiation characteristics and the source mechanism in the Tungara frog. Acoustic ecology of seagrass. Acoustic ecology of coral reefs. Acoustic radiation characteristics of the singing mouse. Acoustic ecology of captive white rhinoceri at Fossil Rim Wildlife Preserve, active noise control in NICU incubators, acoustics of melting glacier ice, coffee roasting acoustics. Medical diagnosis applications of sonoluminescence. Persistent Living Aquatic Sensors. Chief Scientist for the ONR Seabed Characterization Project. Acoustic monitoring of marine carbon sequestration.

CONTINUING EDUCATION:

1. *127th Meeting Of The Acoustical Society Of America*, Acoustical Society Of America, Boston, MA, USA, June 6-10, 1994
2. *128th Meeting Of The Acoustical Society Of America*, Acoustical Society Of America, Austin, TX, USA, December 1-2, 1994
3. *129th Meeting Of The Acoustical Society Of America*, Acoustical Society Of America, Washington, DC, USA, June 1-3, 1995
4. *3rd Joint Meeting: Acoustical Society Of America-Acoustical Society Of Japan*, Acoustical Society Of America, Honolulu, HI, USA, December 1-2, 1996
5. *136th Meeting Of The Acoustical Society Of America*, Acoustical Society Of America, Norfolk, VA, USA, October 12-16, 1998
6. *138th Meeting Of The Acoustical Society Of America*, Acoustical Society Of America, Columbus, OH, USA, November 1-5, 1999
7. *139th Meeting Of The Acoustical Society Of America*, Acoustical Society Of America, Atlanta, GA, USA, June 1-3, 2000
8. *5th European Conference On Underwater Acoustics*, European Commission, Lyon, France, July 10-13, 2000
9. *OCEANS 2000 MTS/IEEE Conference And Exhibition*, IEEE, Providence, RI, USA, September 11-14, 2000
10. *140th Meeting Of The Acoustical Society Of America*, Acoustical Society Of America, Newport Beach, CA, Dec 4-8, 2000
11. *141st Meeting Of The Acoustical Society Of America*, Acoustical Society Of America, Chicago, IL, USA, June 4-8, 2001

12. *17th International Congress On Acoustics*, International Commission For Acoustics, Rome, Italy, September 2-7, 2001
13. *142nd Meeting Of The Acoustical Society Of America*, Acoustical Society Of America, Ft. Lauderdale, FL, USA, December 3-7, 2001
14. *143rd Meeting Of The Acoustical Society Of America*, Acoustical Society Of America, Pittsburgh, PA, USA, June 3-7, 2002
15. *144th Meeting Of The Acoustical Society Of America*, Acoustical Society Of America, Cancun, Mexico, December 2-6, 2002
16. *145th Meeting Of The Acoustical Society Of America*, Acoustical Society Of America, Nashville, TN, USA, May 1-2, 2003
17. *146th Meeting Of The Acoustical Society Of America*, Acoustical Society Of America, Austin, TX, USA, November 10-14, 2003
18. *147th Meeting Of The Acoustical Society Of America*, Acoustical Society Of America, New York City, NY, May 24-28, 2004
19. *148th Meeting Of The Acoustical Society Of America*, The Acoustical Society Of America, San Diego, CA, USA, November 15-19, 2004
20. "Office of Naval Research Gassy Sediment Workshop," Office Of Naval Research, Bay St. Louis, MS, USA, April 25-27, 2005
21. *Boundary Influences In High Frequency, Shallow Water Acoustics*, Office Of Naval Research, Bath, England, United Kingdom, September 5-9, 2005
22. *150th Meeting Of The Acoustical Society Of America*, The Acoustical Society Of America, Minneapolis, MN, USA, October 17-21, 2005
23. "Kick-off meeting for the research group working on the physiological effects of sound on marine mammals," Office Of Naval Research, Marine Life Sciences Division, San Diego, CA, USA, Dec 12, 2005
24. *151st Meeting Of The Acoustical Society Of America*, The Acoustical Society Of America, Providence, RI, USA, June 5-9, 2006
25. "Office of Naval Research Reverberation Modeling Workshop," Office Of Naval Research, Austin, TX, USA, November 7-9, 2006
26. *4th Joint Meeting: Acoustical Society Of America-Acoustical Society Of Japan*, Honolulu, HI, USA, Nov 28, 2006-Dec 2, 2006
27. *153rd Meeting Of The Acoustical Society Of America*, Salt Lake City, UT, USA, June 4-8, 2007
28. *Underwater Acoustics Measurements: Technologies And Results*, ONR, Heraklion, Crete, Greece, June 25-29, 2007
29. "Noise and Vibration Summit at NI-Week," National Instruments, Austin, TX, USA, August 7, 2007
30. *NI-Week 2007*, National Instruments, Austin, TX, USA, August 7-10, 2007
31. *International Conference On Detection And Classification Of Underwater Targets*, Institute Of Acoustics, Edinburgh, Scotland, September 17-19, 2007
32. *154th Meeting Of The Acoustical Society Of America*, New Orleans, LA, USA, November 27-30, 2007
33. "Presenting Data and Information: A One-Day Course Taught by Edward Tufte", Austin, TX, USA, Dec 10, 2007
34. "Office of Naval Research Shallow Water 06 Workshop," Office Of Naval Research, Ft. Lauderdale, FL, USA, February 12-14, 2008
35. *159th Meeting Of The Acoustical Society Of America*, Baltimore, MD, USA, April 19-23, 2008
36. "Office of Naval Research Reverberation Modeling Workshop II," Office Of Naval Research, Austin, TX, USA, May 13-15, 2008
37. *157th Meeting Of The Acoustical Society Of America*, Portland, OR, USA, May 18-22, 2008
38. *158th Meeting Of The Acoustical Society Of America*, San Antonio, TX, USA, October 26-30, 2008
39. *156th Meeting Of The Acoustical Society Of America*, Miami, FL, USA, November 10-14, 2008
40. "2009 Shallow-Water '06 Acoustics Workshop," Office Of Naval Research, Austin, TX, United States, 2009
41. "National Effective Teaching Institute," American Society For Engineering Education, Austin, TX, United States, 2009
42. "Shallow Water Acoustics Workshop," Office Of Naval Research, San Francisco, CA, USA, September 28-30, 2010
43. *160th Meeting Of The Acoustical Society Of America*, Cancun, Qunitana Roo, Mexico, November 15-19, 2010
44. "MITAS 2009 Post-Cruise Workshop," Naval Research Laboratory, San Francisco, CA, USA, December 15, 2010
45. *American Geophysical Union Fall Meeting*, San Francisco, CA, USA, December 15, 2010
46. "Fish School Acoustics Basic Research Challenge Workshop," Office Of Naval Research, Portland, OR, USA, January 11-12, 2011
47. "Acoustic Seabed Sediment Characterization Workshop," Office Of Naval Research, Austin, TX, USA, April 5-6, 2011
48. "Shelfbreak Acoustics Workshop," Office Of Naval Research, Seattle, WA, USA, May 23, 2011
49. *161st Meeting Of The Acoustical Society Of America*, Seattle, WA, USA, May 23-27, 2011
50. "Reverberation Field Experiment Workshop," Office Of Naval Research, Alexandria, VA, USA, June 1-2, 2011
51. "Structural and Materials Logic Technical Interchange Workshop," DARPA, Alexandria, VA, USA, June 10, 2011
52. *162nd Meeting Of The Acoustical Society Of America*, San Diego, CA, USA, Oct 31-Nov 4, 2011
53. "Personal Alarm Safety System Working Group Meeting," National Fire Protection Research Foundation, Austin, TX, USA, Nov 8, 2011
54. "Structural and Materials Logic Technical Interchange Workshop," DARPA, Los Angeles, CA, USA, Jan 4-5, 2012
55. "Acoustic Seabed Sediment Characterization Workshop," Office Of Naval Research, Arlington, VA, USA, Jan 10-11, 2012
56. "Bureau of Ocean Energy Management Underwater Sound Workshop," Bureau Of Ocean Energy Management, San Diego, CA, USA, March 20-22, 2012
57. *163rd Meeting Of The Acoustical Society Of America*, Hong Kong, China, May 14-18, 2012
58. "Shelfbreak Acoustics Workshop," Office Of Naval Research, San Diego, CA, USA, Oct 31, 2012

59. 164th Meeting of the Acoustical Society of America, Kansas City, MO, October 22–26, 2012.
60. Offshore Wind Energy: Understanding Impacts on Great Lakes Fishery and Other Aquatic Resources; My Function: participated; Sponsor: Great Lakes Wind Collaborative & Great Lakes Commission; Location: Ann Arbor, MI; Date: November 28–29, 2012.
61. BOEM Quieting Technologies for Reducing Noise during Seismic Surveying and Pile Driving Workshop; My Function: participated; Sponsor: Bureau of Ocean Energy Management; Location: Silver Spring, MD; Date: February 25–27, 2013.
62. 165th Meeting of the Acoustical Society of America, Montreal, CA, June 2–7, 2013. (Booked this meeting all the way through, then my passport failed to arrive on time. My students were there and did their talks and one of my talks. I participated in some of the administrative meetings via Skype, but I was not at this meeting in person.)
63. 1st International Conference and Exhibition on Underwater Acoustics, Korfu, Greece, June 23–28, 2013.
64. SERDP Workshop on Acoustic Detection and Classification of UXO in the Underwater Environment; My Function: participated; Sponsor: SERDP; Location: Ft. Meyer, Arlington, VA; Date: July 16–17, 2013.
65. 166th Meeting of the Acoustical Society of America, San Francisco, CA, Dec 2–6, 2014.
66. 167th Meeting of the Acoustical Society of America, Providence, RI, May 5–9, 2014.
67. 168th Meeting of the Acoustical Society of America, Indianapolis, IN, Oct 27–31, 2014.
68. ONR Sediment Characterization Survey Workshop, Austin, TX, Dec 9–11, 2014.
69. Acoustical Society of America Leadership Retreat, Austin, TX, Jan 12–14, 2015.
70. 169th Meeting of the Acoustical Society of America, Providence, RI, May 5–9, 2014.
71. 170th Meeting of the Acoustical Society of America, Jacksonville, FL, Nov 2–6, 2015.
72. 171st Meeting of the Acoustical Society of America, Salt Lake City, UT, May 23–27, 2016.
73. 172nd Meeting of the Acoustical Society of America, Honolulu, HI, Nov 28–2 Dec, 2016.
74. The 3rd Joint Meeting of the Acoustical Society of America and the European Acoustics Association, Boston, MA, June 25–29, 2017.
75. 174th Meeting of the Acoustical Society of America, New Orleans, LA, Dec 4–8, 2017.
76. 175th Meeting of the Acoustical Society of America, Minneapolis, MN, May 7–11, 2018.
77. 176th Meeting of the Acoustical Society of America, Victoria, CAN, Nov 5–9, 2018.
78. 177th Meeting of the Acoustical Society of America, Louisville, KY, May 13–17, 2019.
79. 178th Meeting of the Acoustical Society of America, San Diego, CA, Dec 2–7, 2019.
80. 179th Meeting of the Acoustical Society of America, virtual meeting, Dec 7–11, 2020.
81. 180th Meeting of the Acoustical Society of America, virtual meeting, Jun 8–10, 2021.
82. 181st Meeting of the Acoustical Society of America, Seattle, WA, Nov 29–Dec 3, 2021.
83. 183rd Meeting of the Acoustical Society of America, Nashville, TN, Dec 5–9, 2022.
84. 184th Meeting of the Acoustical Society of America, Chicago, IL, May 8–12, 2023.

TEACHING ACTIVITIES, COURSES

1. Engineering Acoustics, upper division undergrad ME/EE elective, taught 12 times since 2003.
2. Dynamic Systems and Controls, required upper division ME undergrad course, taught 6 times since 2003.
3. Electroacoustic Transducers, ME/EE graduate course, taught 14 times since 2003.
4. Engineering Vibrations, upper division ME undergrad elective, taught 12 times since 2003.

ADDITIONAL TEACHING ACTIVITIES

1. Faculty Adviser for Capstone Design Project, Spring 2004
2. Faculty Adviser for 2 Capstone Design Projects, Spring 2005
3. Faculty Adviser for 2 Capstone Design Projects, Spring 2006
4. Faculty Adviser for Capstone Design Project, Fall 2006
5. Faculty Adviser for 2 Capstone Design Projects, Spring 2008
6. Faculty Adviser for 2 Capstone Design Projects, Spring 2014
7. Faculty Adviser for 1 Capstone Design Projects, Summer 2014
8. Faculty Adviser for 1 Capstone Design Project, Fall 2014
9. Faculty Adviser for 2 Capstone Design Projects, Spring 2015
10. Faculty Adviser for 2 Capstone Design Projects, Summer 2015
11. Faculty Adviser for 2 Capstone Design Projects, Fall 2015
12. Faculty Adviser for 1 Capstone Design Projects, Spring 2016
13. Faculty Adviser for 1 Capstone Design Projects, Fall 2016
14. Faculty Adviser for 1 Capstone Design Projects, Fall 2017
15. Faculty Adviser for 1 Plan II/Engineering Honors Senior Thesis (Parker George), Spring 2019
16. Faculty Adviser for 1 Capstone Design Project, Spring 2021
17. Faculty Adviser for 1 Capstone Design Projects, Fall 2022
18. Faculty Adviser for 1 Capstone Design Projects, Spring 2023
19. Faculty Adviser for 1 Capstone Design Projects, Fall 2023

20. Faculty Advisor for 1 Capstone Design Projects, Spring 2024

PH.D. SUPERVISIONS COMPLETED

1. Jianying Cui, Mechanical Engineering, August 2008
“Models for Acoustically Driven Bubbles in Channels” Co-supervised with Mark Hamilton
2. Christopher J. Wilson, Marine Science, December 2011
“The Acoustic Ecology of Submerged Macrophytes” Co-supervised with Kenneth Dunton
3. Theodore F Argo IV, Mechanical Engineering, May 2012
“Laboratory Measurements of Sound Speed and Attenuation of Water-Saturated Granular Sediments”
4. Jason D. Sagers, Mechanical Engineering, August 2012
“Predicting Acoustic Intensity Fluctuations Induced by Nonlinear Waves in a Shallow Water Waveguide” Co-supervised with David Knobles
5. Craig N. Dolder, Mechanical Engineering, May 2014
“Direct Measurement of Effective Medium Properties of Model Fish Schools”
6. Susan M. Wiseman, Environmental Geography, Texas State University, November 2014
“Measurement and Characterization of a Soundscape of Captive Southern White Rhinoceros (*Ceratotherium simum simum*) at a Wildlife Conservation Center,” [Wilson served as external committee member, and as co-advisor.]
7. Michael B. Muhlestein, Mechanical Engineering, December 2016
“Willis Coupling in Acoustic and Elastic Metamaterials,” Co-supervised with Michael R. Haberman
8. Andria K. Salas, Integrative Biology, December 2018
“Predicting the Influence of Source and Receiver Variation in the Use of Acoustic Cues by Larval Fishes,” Co-supervised with Tim Kielt
9. Gabriel R. Venegas, Mechanical Engineering, May 2019
“The Impact of Salinity Diffusion, Poroelasticity, and Organic Carbon in Sediment Acoustics”
10. Jay R. Johnson, Mechanical Engineering, August 2019
“Acoustic Characterization of Mediterranean Seagrasses *Posidonia oceanica* and *Cymodocea nodosa*”
11. Mustafa Z. Abbasi, Mechanical Engineering, December 2020
“The Acoustics of Compartment Fires,” Co-supervised with Ofodike A. Ezekoye
12. Colby W. Cushing, Mechanical Engineering, August 2021
“Characterization of Underwater Acoustic Metamaterials Inspired by Transformation Acoustics,” co-supervised with Michael Haberman
13. Mathew C. Zeh, Mechanical Engineering, May 2022
“Acoustical Characterization of Glacierized Fjords”
-----V---No new PhD graduates for Academic Year 2023–24---V-----

M.S. SUPERVISIONS COMPLETED:

1. Henry J. Camin III, Fall 2004
“A Comparison of Spherical Wave Sediment Reflection Coefficient Measurements to Plane Wave Models” co-supervised by Marcia J. Isakson
2. Alok Vaid, Mechanical Engineering, Spring 2006
“CD Metrology Using Scatterometry”
3. Theodore Francis Argo IV, Mechanical Engineering, Fall 2006
“Experimental Investigation Of Linear Resonant Bubble Behavior Between Parallel Plates”
4. Douglas R. Heyden, Mechanical Engineering, August 2008
“The Development of a Broad Band Projector Array Using Piezoelectric Cylinder Transducers and Impedance Matching Layers”, Co-supervised with Richard Crawford
5. Sameer J. Desai, Mechanical Engineering, August 2008
“Construction of an Apparatus for Characterizing Sound Speed in Bubbly Liquids”
6. Nguyen, Trang T., Mechanical Engineering, Fall 2008
“A Study to Improve Sonar Target Detection Using Bistatic Information”, Co-supervised with Marcia J. Isakson
7. Larbi-Cherif, Adrian M., Mechanical Engineering, Spring 2009
“Modeling Rectified Diffusion, with Application to Potential Bubble Growth in Marine Mammals”, Co-supervised with Mark Hamilton
8. Guild, Matthew D., Mechanical Engineering, August 2009
“Development of a Diver-Deployed Instrument for the Measurement of Sediment Density Gradients by X-Ray Attenuation Measurements”, Co-supervised with Marica J. Isakson
9. Andrew R. McNeese, Mechanical Engineering, August 2010
“An Investigation of the Combustive Sound Source”
10. Kenneth K. Nguyen, Mechanical Engineering, August 2010
“Design and Comparison of Single Crystal and Ceramic Tonpilz Transducers” co-supervised with Mike Haberman

11. Chad A. Greene, Mechanical Engineering, May 2011
“Low-Frequency Acoustic Classification of Methane Hydrates”
12. Steven T. Embleton, Mechanical Engineering, August 2011
“Designing Pressure Resistant Acoustic Baffles” co-supervised by Michael Haberman.
13. Thomas F. Pizarek, Mechanical Engineering, August 2011
“Improved Lumped-Parameter Model for Acoustic Monitoring of Tension in a Timing Belt Used in Automated Material Handling Systems”
14. Benjamin A. Fulcher, Mechanical Engineering, May 2012
“Evaluation of systems containing negative stiffness elements for vibration and shock isolation”, Co-supervised with Seepersad
15. Alison Earnhart, Science Education, Summer 2012
“Using piezoelectric technology to harvest energy from drums and inspire an engaging high school classroom experience”, Co-supervised with Richard Crawford
16. Christopher M. Bender, Mechanical Engineering, Dec 2012
“Three-Dimensional Geoacoustic Perturbative Inverse Technique for the Shallow Ocean Water Column”
17. Mustafa Z. Abbasi, Mechanical Engineering, May 2013
“Development of a Sonar System to Assist Firefighter Navigation in Low-Visibility High Temperature Environments.”, Co-supervised with Ofodike A. Ezekoye
18. Joelle I. Suits, Mechanical Engineering, August 2013
“Development of a sonar equation formalism for fireground acoustics.”, Co-supervised with Ofodike A. Ezekoye
19. Nicholas J. Joseph, Mechanical Engineering, August 2013
“A Comparison of Models for a Piezoelectric 31-Mode Segmented Cylindrical Transducer.”, Co-supervised with Michael R. Haberman
20. Bryant M. Tran, Mechanical Engineering, December 2013
“Three Transdimensional Factors for the Conversion of 2D Acoustic Rough Surface Scattering Model Results for Comparison with 3D Scattering.”, Co-supervised with Marcia Isackson
21. Gregory R. Enenstein, Mechanical Engineering, May 2014
“Two Studies on the Acoustics of Multiphase Materials: Seagrass Tissue and Encapsulated Bubbles”
22. Richard D. Lenhart, Mechanical Engineering, August 2014
“Development of a Standing-Wave Apparatus for Calibrating Acoustic Vector Sensors,” Co-supervised with Jason D. Sagers
23. Kenneth S. Bostwick, Mechanical Engineering, May 2015
“Experimental Study of Impact Loading on Negative Stiffness Structures,” Co-supervised with Carolyn C. Seepersad and Michael R. Haberman.
24. Casey M. Farmer, Mechanical Engineering, May 2015
“Visualization of Auditory Masking for Firefighter Alarm Detection,” Co-supervised with Ofodike A. Ezekoye.
25. Mark C. Kershnik, Jr., Mechanical Engineering, May 2015
“Shock Isolation Performance of a Negative Stiffness Honeycomb with an Integrated Fluid Damping System,” Co-supervised with Carolyn C. Seepersad.
26. Ashley J. Hicks, Mechanical Engineering, May 2015
“Design and Testing of Sub-wavelength Panels for Underwater Acoustic Isolation,” Co-supervised with Michael R. Haberman.
27. Jay R. Johnson, Mechanical Engineering, May 2017
“The Acoustics of Coffee Roasting”
28. Daniel A. Hemme, Mechanical Engineering, December 2017
“Characterization of Sound Power Level Spectra Produced by HVAC Chillers with Double Helical Rotary Screw Compressors Under Various Operating Conditions”
29. Justin T. Dubin, Mechanical Engineering, August 2018
“Sediment Characterization Using In Situ Measurements of Acoustic Properties,” Co-supervised with Megan S. Ballard and Kevin M. Lee.
30. Fiona S. Cheung, Mechanical Engineering, August 2018
“Diffusion of Air-borne Sound Using Acoustic Metamaterials,” Co-supervised with Michael R. Haberman.
31. Neil J. Woodson, Mechanical Engineering, May 2019
“Noise Control Engineering on LNG Liquefaction Engineering, Procurement, and Construction Project”
32. Varun Soni, Mechanical Engineering, May 2020
“A machine learning optical system to ensure that human assembly technicians use the specified bolt tightening sequence in assembly line manufacturing”
33. James A. Albritton, Mechanical Engineering, December 2021
“Determining seafloor sediment geoacoustic and ripple parameters from simulated transmission loss data through Bayesian parallel tempering inference” Co-supervised with Aaron M. Gunderson.
34. Nicholas Torres, Mechanical Engineering, May 2022
“Modeling the low-frequency response of seagrass in a resonator tube”
35. Nathan Wilson, Mechanical Engineering, August 2022

“Scientific analysis of *Thalassia testudinum* leaves”

36. Alena Hall, Electrical Engineering, Jan 2021–May 2023

I supported this student as a GRA for 2.5 years but she fell ill and departed with a course-work MS.

-----√--- new MS graduates for Academic Year 2023–24---√-----

37. Dante Garcia, Mechanical Engineering, December 2023

“In Situ Measurements of Compressional and Shear Wave Speed and Compressional Wave Attenuation using the Acoustic Coring System”

38. Thomas Brown, Mechanical Engineering, December 2023

“Optical Analysis of Plate Modes in Circuit Boards Using a Multi-Axis Shaker Table”

PH.D. SUPERVISIONS IN PROGRESS:

1. Alicia J. Casacchia, Mechanical Engineering, Sept 2018–present

“Medical Diagnosis Applications of Sonoluminescence”

2. Trent R. Christensen, Electrical Engineering, Jan 2020–present

“Exploiting uncertainty in acoustic fields in the ocean”

3. Christopher A. Stockinger, Mechanical Engineering, Jan 2020–present

“Correlating weather, oceanography and low-frequency ocean ambient noise”

4. Jackson S. Hallved, Electrical Engineering, Jan 2021–present

“Modeling acoustic propagation in the modern arctic ocean”

5. Ira J. Morgan, Electrical Engineering, Sept 2022–present

“Advanced Underwater Acoustic Array Processing”

6. Nathan Wilson, Mechanical Engineering, Sept 2022–present

“Ultrasonic in situ inspection of railroad rails”

7. Nickalaus H. Anderson, Mechanical Engineering, Spring 2023–present

“Sound Propagation in Fine-Grained Marine Sediments”

8. Seth Lowery, Mechanical Engineering, July 2023–Spring 2024

“Acoustic Scattering from Corroded Ordnance”

-----√--- new for Academic Year 2023–24---√-----

9. Connor Hodges, Electrical Engineering, Sept 2023–present

“Acoustic Scattering from Corroded Ordnance”

M.S. SUPERVISIONS IN PROGRESS:

-----√--- new for Academic Year 2023–24---√-----

1. Charlie Hubbard, Mechanical Engineering, June 2024–present

“Acoustic Scattering from Corroded Ordnance”

POST-DOCTORAL FELLOW SUPERVISION:

1. Dr. Dustin G. Reichard, bioacoustics of songbirds (May 2012–Summer 2015), co-supervised with Gail Patricelli

2. Dr. Bret S. Pasch, bioacoustics of field mice (Fall 2012–Summer 2014), co-supervised with Michael Ryan

3. Dr. Jason A. Sagers, underwater acoustics (Fall 2012–Summer 2014), co-supervised with David Knobles

4. Dr. Megan S. Ballard, underwater acoustics (January 2010–December 2011)

5. Dr. Kevin M. Lee, underwater acoustic noise abatement (Fall 2009–Summer 2011)

6. Dr. Andrea Contina, soundscape ecology (Spring 2022–Summer 2023), co-supervised with Tim Keitt

7. Dr. Colby Cushing, ocean acoustics (Fall 2023–present), co-supervised with Megan Ballard

8. Dr. Thomas Jerome, ocean acoustics (Spring 2023–present), co-supervised with Megan Ballard

9. Dr. Nicole Wonderlin, soundscape ecology (Summer 2023–present), co-supervised with Tim Keitt

10. Dr. Robert Taylor, ocean acoustics (Summer 2023–present), co-supervised with Megan Ballard

-----√--- no new for Academic Year 2023–24---√-----

FULL-TIME RESEARCH STAFF SUPERVISION (at ARL:UT):

1. Andrew R. McNeese, PE, Engineering Scientist (Fall 2011–2021)

2. Dr. Kevin M. Lee, Research Scientist (Fall 2012–2021)

3. Dr. Megan S. Ballard, Research Scientist (Fall 2012–2021)

4. Dr. Jason A. Sagers, Research Scientist (Fall 2014–2021)

Note: UT rules changed in Spring 2021 forbidding tenured faculty from formally supervising ARL employees in Workday. Hence, Wilson is still the academic leader of this group, but no longer the formal supervisor in Workday.

OTHER STUDENT RESEARCH SUPERVISION:

1. Tia A. Ghose, undergraduate research assistant (Fall 2003)

2. Bonnie C. Roberts, undergraduate research assistant (Spring 2004)

3. Paul A. Waters, undergraduate research assistant (Spring 2004, Spring 2005)
4. Robert M. Everitt, undergraduate research assistant (Summer 2004-Fall 2004)
5. Keris Allrich, Assisted Chem. Eng. Grad Student with acoustic apparatus (Spring 2005-Summer 2005)
6. Michael Dickey, Assisted Chem. Eng. Grad Student with acoustic apparatus (Spring 2005-Summer 2006)
7. Alejandro J. Martinez, Assisted ME grad student with acoustical analysis for thesis (Fall 2005-Spring 2006)
8. Ryan L. Renfrow, undergraduate research assistant (Fall 2005-2008)
9. Steve E. Cho, undergraduate research assistant (Summer 2006)
10. Alejandro J. Martinez, Assisted ME grad student with acoustical analysis for thesis (Fall 2006)
11. Andrew A. Pasternak, undergraduate research assistant (Summer 2007)
12. Sean F. Swearingen, undergraduate research assistant (Summer 2007)
13. Anais Castel, undergraduate research assistant, exchange student (Spring 2009)
14. Kevin T. Hinojosa, undergraduate research assistant (Summer 2009-Spring 2012)
15. Laura M. Tseng, undergraduate research assistant (Summer 2012-present)
16. Kyle M. Ford, undergraduate research assistant (Summer 2012-Fall 2013)
17. Adrienne McCarty, undergraduate research assistant (Spring 2013-Spring 2014)
18. Mudeer Hadeeb, undergraduate research assistant (Summer 2012-present)
19. Martin Lippert, undergraduate research assistant (Spring 2014)
20. Ryan Harbour, undergraduate research assistant (Summer 2014)
21. Matthew Kryder, undergraduate research assistant (Summer 2014-Spring 2015)
22. Maria Paz-Raveau, graduate research assistant, exchange student (Fall 2014)
23. Clement Rames, undergraduate research assistant, exchange student (Spring 2015)
24. Jean Gonzalez, undergraduate research assistant, exchange student (Summer 2015-present)
25. Jeremy King, undergraduate research assistant (Summer 2015-present)
26. Oliver Uitz, undergraduate research assistant (Fall 2016-present)
27. Kimbell Bui, undergraduate research assistant (Spring 2017-Summer 2018)
28. Sara Fernandez De La Vega, undergraduate research assistant (Summer 2018-Summer 2019)
29. Parker George, served as Plan II Thesis supervisor (Summer 2018-May 2019)
30. Dhruva Karkada, undergraduate research assistant (Summer 2019-present)
31. Ishaan Haldar, undergraduate research assistant (Spring 2021-present)

Preston Scot Wilson, Professor

Paul D. and Betty Robertson Meek Centennial Professor in Engineering

The University of Texas at Austin

Walker Department of Mechanical Engineering and Research Professor, Applied Research Laboratories

Dr. Wilson is a Professor in the Acoustics and Dynamic Systems & Control programs of the Walker Department of Mechanical Engineering, holds a joint appointment as a Research Professor at Applied Research Laboratories, is a faculty affiliate of the Oden Institute, and is the Paul D. and Betty Robertson Meek Centennial Professor in Engineering. Wilson obtained the PhD degree in Mechanical Engineering from Boston University in 2001, and the MS and BS degrees in Mechanical Engineering from the University of Texas at Austin, in 1994 and 1990, respectively. He joined the Cockrell School of Engineering faculty in 2003 after serving as a Post-Doctoral Research Fellow at Boston University, where he studied sound propagation and scattering in bubbly liquids, and the acoustics of water-saturated marine sediments. Previous experience also includes 3 years as a research engineer at Applied Research Laboratories, The University of Texas, 1994-1997, where he studied the acoustics of marine mammal sonar, developed a seismoacoustic mine detection sonar, seismoacoustic vehicle detection sensors and the Combustive Sound Source (a safe and inexpensive alternative to explosive sound sources for use in ocean surveys and seismic prospecting). In 2004, Dr. Wilson received the Office of Naval Research Entry-Level Faculty Award in Ocean Acoustics, in 2007 received the A.B. Wood Medal and Prize from the UK Institute of Acoustics, and in 2020 received the Rossing Prize in Acoustics Education from the Acoustical Society of America (ASA). Wilson is a Fellow of the ASA, is the past Chair of the Education in Acoustics Committee within the ASA, was elected to the Executive Council of the ASA during 2016-2019, currently serves as an associate editor for the Journal of the Acoustical Society of America and is the Chair of the ASA Ethics and Grievances Committee. Dr. Wilson's current research interests are ocean acoustics, physical acoustics and engineering acoustics, with concentrations on sound propagation and scattering in the ocean and in multiphase media, animal bioacoustics, novel acoustic materials, metamaterials, transduction and acoustic remote sensing of ocean biomass and carbon. Wilson also works in the area of underwater anthropogenic noise abatement. Another area of interest is vibration control, focusing on the use of nonlinear systems such as buckled beams and other negative-stiffness structures. Work conducted in the Wilson group has been popularly-reported in Scientific American, National Geographic, The Alcalde, The Austin Business Journal, and via radio reports on KUT and NPR. Wilson co-founded AdBm Technologies, Inc, to commercialize underwater noise abatement technology and currently serves as a science advisor to the company, which provides underwater noise abatement solutions for the domestic oil and gas market and the international marine wind and offshore construction markets. Wilson currently holds six US patents. Five have generated licensing fees for UT.