

Jean Christine Krause
Associate Professor
Communication Sciences and Disorders
University of South Florida

Address

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Contact Information

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EDUCATION

Massachusetts Institute of Technology

Degree: SM/PhD, Electrical Engineering and Speech Perception
SM Thesis: "The Effects of Speaking Rate on the Intelligibility of Speech for Various Speaking Modes"
Doctoral Dissertation: "Properties of Naturally Produced Clear Speech and Implications for Intelligibility Enhancement"
Advanced Coursework: Speech Communication; Digital Speech Processing; Automatic Speech Recognition; Stochastic Processes, Detection and Estimation; Digital Communications; Analysis

Cambridge, MA
February 2001

Georgia Institute of Technology

Degree: BSEE, Electrical Engineering
Certificates: American Literature, Technical Communications

Atlanta, GA
June 1993

OTHER ACADEMIC COURSEWORK

Gallaudet University

Courses: American Sign Language IV, Intermediate Fingerspelling

Washington, DC
Summer 2006

University of South Florida

Courses: Advanced American Sign Language, ASL IV

Tampa, FL
Summer 2004, Spring 2006

Northeastern University

Courses: Diagnostic Audiometry, Electrophysiology

Boston, MA
Fall 2002

PROFESSIONAL EXPERIENCE

University of South Florida Department of Communication Sciences & Disorders

Associate Professor

Assistant Professor

- taught undergraduate and graduate coursework in Speech Pathology and Audiology
- pursued research relating to speech perception, hearing aids, and aural rehabilitation, particularly methods related to clear speech and Cued Speech
- pursued research relating to educational interpreting and intelligibility of visual communication signals used in signed and cued communication

Audiology Program Director

- directed recruiting efforts and admissions for the graduate audiology program
- developed course schedules and instructor assignment for the program, in consultation with department chair
- assessed program annually and managed day-to-day program and policy issues

PhD Program Director

- provided academic advising, research mentoring, and professional counseling to PhD students
- led substantial revision of PhD curriculum to enhance research focus

Tampa, FL
Fall 2009 – present
Fall 2003 – Summer 2009

Summer 2017 - present

Fall 2009 – Summer 2014

University of Southern Maine Department of Linguistics

Co-investigator

Adjunct Faculty

- lead development of a grant proposal to Office of Special Education Programs (OSEP) for the adaptation of the EIPA (Educational Interpreter Performance Assessment) to Cued Speech

Portland, ME
Fall 2002 – February 2003
February 2003 – Fall 2003

MIT Department of Electrical Engineering

Post-doctoral Associate

Research Assistant

- designed novel method for eliciting clear speech at normal speaking rates
- analyzed acoustical properties of clear speech using MATLAB, ESPS/waves+

Cambridge, MA
Winter 2001 – Summer 2003
Summer 1994 – Winter 2001

- developed speech processing scheme aimed at improving speech intelligibility
- studied independently topics in Audiology: phonetics, acoustics, psychoacoustics, speech and hearing science, aural rehabilitation
- assisted with display implementation for automatic Cued Speech device
- contributed to numerous NIH grant proposals (R01 and STTR)

Speech Technology and Research Corporation Lexington, MA

Consultant

Sept 2009 - Aug 2011

- contributed to an NIH R43 (SBIR Phase I) grant proposal aimed at developing a real-time feedback device for monitoring talkers' effectiveness at producing clear speech
- provided ongoing input on experimental design, data analysis and interpretation of the funded project

Consultant

Fall 2000

- provided overview of clear speech literature to be used in an NIH R21 grant proposal on dysarthria
- utilized contacts with deafness organizations to recruit subjects for a project on visual articulation feedback

New England Cued Speech (An affiliate of the Hearing Rehabilitation Foundation)

Cambridge, MA

Founder/director

January 1997 - July 2003

- provided Cued Speech instruction opportunities to the Boston area through annual workshops, monthly practice sessions, and short courses
- promoted awareness of Cued Speech by creating the "Cued Speech Information" webpage (<http://web7.mit.edu/CuedSpeech/>) and arranging guest lectures at local hospitals, universities, and parents' groups
- organized transliterator professional development workshops for the State of Maine, Montgomery County Public Schools

Sensimetrics Corporation

Somerville, MA

Consultant

Summer 2001 - Summer 2003

- contributed to Small Business Innovation Research (SBIR) grant proposal to NIH regarding design, implementation, and evaluation of a Cued Speech Instructional CD-ROM
- lead content-side curriculum development of Cued Speech CD-ROM course

National Cued Speech Association

Rochester, NY

Instructor Certification Committee (Chair since August 1999)

Fall 1998 - Fall 2012

- designed, launched, and promoted nationwide instructor training program
- reviewed and updated certification process

Standards Committee, Co-chair

May 1998 - May 2003

- updated standards for cued American English

Testing Committee (Chair since May 2003)

May 1998 - Fall 2008

- standardized procedures for evaluating Cued Speech production skills

Self-employed

Cambridge, MA

Cued Speech Transliterator

Spring 1996 - present

- provided access to spoken English for deaf client(s) via Cued Speech
- facilitated communication between client and others, voicing as necessary

ORGANIZATION MEMBERSHIP

1. Acoustical Society of America
2. American Speech-Language-Hearing Association
3. National Cued Speech Association
4. Registry of Interpreters for the Deaf
5. Florida Registry of Interpreters for the Deaf
6. USF Academy of Inventors

AWARDS AND FELLOWSHIPS

1. **ONR-NDSEG Fellow**
2. GE Faculty for the Future Fellow
3. **Henry Ford II Scholar:** highest academic record in College of Engineering
4. Georgia Tech Presidential Scholar
5. National Cued Speech Association - 2003 Service Award
6. Library Enhancement Award (\$550)
7. CAS Conference Coordination Award (\$1000)

PROFESSIONAL CERTIFICATIONS

1. Instructor of Cued Speech (ICS) Certificate, National Cued Speech Association
2. Oral Transliterating Certificate (OTC), Registry of Interpreters for the Deaf

PROFESSIONAL DEVELOPMENT / CONTINUING EDUCATION

- 25th Annual World's Largest Silent Weekend - Tampa, FL (June 24-26, 2004): took intermediate and advanced ASL classes in ASL immersion environment

PATENTS

1. co-inventor of "Automatic cueing of speech" - **US Patent # 6,317,716 (11/13/2001)**

RESEARCH SUPPORT:

Pending Research Support

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Ongoing Research Support

Internal Award Krause (PI), "Accuracy of signs produced by American Sign Language interpreters"

Agency: USF Internal Awards program

Grant type: Creative Scholarship Grant

Dates: 5/20-4/21

Funding: \$10,000

Completed Research Support

U215 K080147 National Cued Speech Association (PI), "Expressive Cued Speech Assessments Development"

Agency: DoED (FIE - Programs of National Significance), Congressional Earmarks, FY2008

Role: PI on subcontract from National Cued Speech Association, entitled "Development of Cued Speech assessments"

Dates: 10/08-3/11

Funding: \$83,768

1 R43-DC010289-01 MacAuslan, J. and Boyce, S. (co-PIs), "Innovative Monitoring Device for Speech to Challenged Listeners"

Agency: NIH (NIDCD)

Role: Consultant

Dates: 9/09-8/11

Funding: \$176,217

1 R03 DC007355-01A1 Krause (PI), "Intelligibility of English-based visual communication"

Agency: NIH (NIDCD)

Role: PI

Dates: 7/05-6/10

Funding: \$194,194

H325 N010013 Schick (co-PI) and Williams (co-PI), "A National Program for Evaluating Educational Interpreters"

Agency: DoED (OSEP - Programs of National Significance)

Role: co-PI on sub-contract from University of Colorado, entitled "An evaluation instrument for Cued Speech transliterators: adapting the EIPA to include Cued Speech as a 'language' option"

Dates: 9/03-6/05

Funding: \$23,148 (after Colorado indirects; award was \$25,000 from OSEP)

Cued Speech Transliterator Testing RFP Krause (co-PI), "An evaluation instrument for Cued Speech transliterators: adapting the EIPA to include Cued Speech as a 'language' option"

Agency: National Cued Speech Association

Role: co-PI on project (same project as above - this funding is "matching" funds)

Dates: 3/04-2/05

Funding: \$5000

Internal Award Krause (PI), "Transliterator/Interpreter efficacy"

Agency: USF Internal Awards program

Grant type: New Researcher

Dates: 5/04-4/05

Funding: \$9486

R01 DC00117 Braidia (PI), "Hearing Aid Research"

Agency: NIH (NIDCD)

Role: Research Assistant (2/01/97-2/01/01), Post-doctoral Associate (3/01/01-7/31/03)

R43 DC04923-01 Zurek (PI), "Interactive Training in Cued Speech on CD-ROM"

Agency: NIH (NIDCD)

Role: Consultant (9/01/01-9/1/02)

JOURNAL PUBLICATIONS:

1. Jean C. Krause and Andrew K. Hague (2020). Signing Exact English Transliteration: Effects of Accuracy and Lag Time on Message Intelligibility. *J. Deaf Stud. Deaf Educ.* Vol. 25, No. 2, pp. 199-211. Advance Access published on Dec 8, 2019, <https://doi.org/10.1093/deafed/enz042>.
2. Jean C. Krause and Athina P. Panagiotopoulos (2019). Speaking Clearly for Older Adults with Normal Hearing: The Role of Speaking Rate. *J. Speech, Lang., Hear. Res.* Vol. 62, No. 10, pp. 3851-3859. Epub on Oct 3, 2019, https://doi.org/10.1044/2019_JSLHR-H-19-0094
3. Jean C. Krause and Nancy J. Murray (2019). Signing Exact English transliteration: Effects of speaking rate and lag time on production accuracy. *J. Deaf Stud. Deaf Educ.* Vol. 24, No. 3, pp. 234-244. Advance Access published on Apr 23, 2019, <https://doi.org/10.1093/deafed/enz013>. PMID: PMC6546158
4. Jean C. Krause and Katherine A. Lopez (2017). Cued Speech Transliteration: Effects of Accuracy and Lag Time on Message Intelligibility. *J. Deaf Stud. Deaf Educ.* Vol. 22, No. 4, pp. 378-392. Advance Access published on Aug 9, 2017, doi:10.1093/deafed/enx024. PMID: PMC5881264
5. Jean C. Krause and Morgan P. Tessler (2016). Cued Speech transliteration: Effects of speaking rate and lag time on production accuracy. *J. Deaf Stud. Deaf Educ.* Vol. 21, No. 4, pp. 373-382. Advance Access published on May 24, 2016, doi:10.1093/deafed/enw034. PMID: PMC5008006
6. Jennifer J. Lister, Richard A. Roberts, Jean C. Krause, Danielle DeBiase, and Heather Carlson (2011). "An adaptive clinical test of temporal resolution: within-channel and across-channel gap detection," *Internat. J. Audio.*, Vol. 50, No. 6, pp. 375-384. Epub 2011 Feb 8. PMID: PMC21303227
7. Jean C. Krause, Katherine A. Pelley-Lopez, and Morgan P. Tessler (2011). "A method for transcribing the manual components of Cued Speech," *Speech Comm.*, Vol. 53, No. 3, pp. 379-389. Available online 14 November 2010, ISSN 0167-6393, DOI: 10.1016/j.specom.2010.11.001. PMID: PMC3079254
8. Catherine L. Rogers, Teresa M. DeMasi, and Jean C. Krause (2010). "Conversational and clear speech intelligibility of /bVd/ syllables produced by native and non-native English speakers," *J. Acoust. Soc. Am.*, Vol. 128, No. 1, pp. 410-423. PMID: PMC2921438
9. Gail S. Donaldson, Theresa H. Chisolm, Georgina P. Blasco, Leslie J. Shinnick, Katie J. Ketter, and Jean C. Krause (2009). "BKB-SIN and ANL Predict Perceived Communication Ability in Cochlear Implant Users," *Ear and Hearing*, Vol. 30, No. 4, pp. 401-10.
10. Jean C. Krause and Louis D. Braidia (2009). "Evaluating the role of spectral and envelope characteristics in the intelligibility advantage of clear speech," *J. Acoust. Soc. Am.*, Vol. 125, No. 5, pp. 3346-3357. PMID: PMC19425675.
11. Jean C. Krause, Judy A. Kegl, Brenda Schick (2008). Toward extending the Educational Interpreter Performance Assessment to Cued Speech. *J. Deaf Stud. Deaf Educ.* Vol. 13, No. 3, pp. 432-450. Advance Access published on November 27, 2007, doi:10.1093/deafed/enm059. PMID: PMC2429984
12. Jean C. Krause (2005). "Auditory interactivities [Review]," *Ear and Hearing*, 26(1):104-105.
13. Jean C. Krause and Louis D. Braidia (2004). "Acoustic properties of naturally produced clear speech at normal speaking rates," *J. Acoust. Soc. Am.*, Vol. 115, No. 1, pp. 362-378.
14. Jean C. Krause and Louis D. Braidia (2003). "Effects of listening environment on intelligibility of clear speech at normal speaking rates," *Iranian Audiology*, Vol. 2, No. 1, pp. 39-47.
15. Jean C. Krause and Louis D. Braidia (2002). "Investigating alternative forms of clear speech: The effects of speaking rate and speaking mode on intelligibility," *J. Acoust. Soc. Am.*, Vol. 112, No. 5, pp. 2165-2172.
16. Paul Duchnowski, David S. Lum, Jean C. Krause, Matthew G. Sexton, Maroula S. Bratakos, and Louis D. Braidia (2000). "Development of Speechreading Supplements Based on Automatic Speech Recognition," *IEEE Transactions on Biomedical Engineering*, Vol. 47, No. 4, pp. 487-496.

BOOK CHAPTERS OR SEGMENTS OF A BOOK:

1. Krause, J.C., Schick, B., Kegl, J.A. (2010). A version of the Educational Interpreter Performance Assessment for Cued Speech transliterators: Prospects and significance. In C.J. LaSasso, K.L. Crain, J. Leybaert (Eds.), *Cued Speech and Cued Language Development of Deaf Students* (pp. 531-551). San Diego, CA: Plural Publishing, Inc.
2. Duchnowski, P., Lum, D., Krause, J.C., Sexton, M., Bratakos, M., Braidia, L.D. (2010). Development of Speechreading Supplements Based on Automatic Speech Recognition. Reprinted in C.J. LaSasso, K.L. Crain, J. Leybaert (Eds.), *Cued Speech and Cued Language Development of Deaf Students* (pp. 467-486). San Diego, CA: Plural Publishing, Inc.

- Krause, J.C., Duchnowski, P., Braid, L.D. (2010). Automatic Cued Speech. In C.J. LaSasso, K.L. Crain, J. Leybaert (Eds.), *Cued Speech and Cued Language Development of Deaf Students* (pp. 487-502). San Diego, CA: Plural Publishing, Inc.

OTHER PUBLICATIONS AND REPORTS:

- Suzanne Boyce, Jean Krause, Sarah Hamilton, Rajka Smiljanic, Ann R. Bradlow, Ahmed Rivera-Campos and Joel MacAuslan (2013). "Using landmark detection to measure clear speech." *Proceedings of Meetings on Acoustics, Acoustical Society of America*, 19, 060129. doi:http://dx.doi.org/10.1121/1.4800680
- Jean Krause, Judy Shepard-Kegl, and Brenda Schick (2006). *Educational Interpreter Performance Assessment - Cued Speech Pilot Test Training Manual*. EIPA Diagnostic Center, Boys Town National Research Hospital, Omaha, NE.
- Braid, Louis D. and Krause, Jean C. (2000). "Applications cliniques potentielles d'un langage parlé complété produit automatiquement," by Louis D. Braid and Jean C. Krause, in *Cahiers de l'Audition*, 13 (6), pp.46-54.
- Paul Duchnowski, Louis Braid, David Lum, Matthew Sexton, Jean Krause, and Smriti Banthia (1998). "Automatic generation of cued speech for the deaf: Status and outlook," *Proc. Audio-Vis. Speech Conf.*, AVSP98, pp. 161-166.

PRESENTATIONS AT STATE, NATIONAL, AND INTERNATIONAL MEETINGS

- Jean C. Krause (2017). "Factors affecting accuracy and intelligibility of transliterators who use cued speech," Boston: *J. Acoust. Soc. Am.*, Vol. 141, No. 5, pg. 3508. **Invited presentation**, special session on "The Contributions of Louis Braid to the Study of Auditory and Speech Perception."
- Jean C. Krause (2015). "Cued Speech: Lending a Hand to Literacy in Children With Hearing Loss," presentation at the 2015 summer conference meeting of the Educational Audiology Association (EAA), St. Petersburg, FL.
- Danielle Milanese and Jean C. Krause (2013). "Cued Speech: Supporting Literacy in Children with Hearing Loss," presentation at the 2013 meeting of the Florida Association of Speech-Language Pathologists and Audiologists (FLASHA), Marco Island, FL.
- Suzanne Boyce, Sarah Hamilton, Joe MacAuslan, Jean Krause, Rajka Smiljanic, and Ann Bradlow (2013). "Using Landmark Detection to Measure Effective Clear Speech," Montreal: *J. Acoust. Soc. Am.*, Vol. 133, No. 5, p. 3391.
- Jean C. Krause, R. Ann Siapno, and Ari B. Hansen (2012). "Clear speech for older hearing-impaired listeners: Effect of rate," poster presentation at the 2012 ASHA Convention, Atlanta, GA.
- Jean C. Krause and Danielle Milanese (2012). "Cued Speech: Lending a Hand to Literacy in Children with Hearing Loss," presentation at the 2012 Florida Summit on Childhood Deafness, Lake Mary, FL.
- Jean C. Krause, R. Ann Siapno, and Ari B. Hansen (2011). "The intelligibility of clear speech at normal and slow rates for older hearing-impaired listeners," Seattle: *J. Acoust. Soc. Am.*, Vol. 129, No. 4, p. 2528.
- Sarah Hamilton, Sandra Combs, Shruti Balvalli, Joel MacAuslan, Jean Krause, Suzanne E. Boyce (2011). "Acoustic landmark analysis of speaker differences in producing clear versus conversational speech," Seattle: *J. Acoust. Soc. Am.*, Vol. 129, No. 4, p. 2454.
- Jean C. Krause (2011). "Assessing interpreter efficacy: An examination of transliterated messages produced by Signing Exact English transliterators," presentation at the Sixth International Adult Aural Rehabilitation Conference, St. Petersburg, FL.
- Jean C. Krause and Abby N. Bennett (2010). "The role of speech readability in the intelligibility of visual speech signals produced by cued speech transliterators," Cancun, Mexico: *J. Acoust. Soc. Am.*, Vol. 128, No. 4, Pt. 2, pg. 2318.
- Hansen, A., Krause, J., and Lister, J. *The relationship between gap detection thresholds and benefit from clear speech at normal and slow speaking rates*. Florida Academy of Audiology Convention, Orlando, FL, 2010. **Mentored Student Research Forum Presentation.**
- Jean C. Krause (2010). "Clear speech at normal rates and implications for intelligibility enhancement," **Invited presentation** at the Defense Research Projects Agency (DARPA) Bionic Ear-Enhancing Plug (BEEP) Workshop, Austin, TX.
- Jennifer Lister, Richard Roberts, Jean Krause, Theresa Chisolm, Patricia Carr, Victoria Gonzalez, Sophia Houze, Danielle DeBiase, Heather Carlson, Ari Brooks, Victoria Williams (2009). "Assessment and Rehabilitation of Temporal Resolution: A New Clinical Tool," poster presentation at the 2009 ASHA Convention, New Orleans, LA.
- Katherine Pelley and Jean C. Krause (2009). "Assessing interpreter efficacy, part two: Factors Affecting Message Intelligibility of Cued Speech Translinterators," presentation at the Fifth International Adult Aural Rehabilitation Conference, Tampa, FL.
- Katherine Pelley and Jean C. Krause (2008). "Transmission and reception of visual speech signals produced by Cued Speech translinterators," Miami: *J. Acoust. Soc. Am.*, Vol. 124, No. 4, Pt. 2, pg. 2437.
- DeBiase, D., Lister, J., and Krause, J. *The development of an adaptive clinical test of temporal resolution: Sound card differences*. Florida Academy of Audiology Convention, Orlando, FL, 2008. **Mentored Student Research Forum Presentation.**
- Gail S. Donaldson, Theresa H. Chisolm, Georgina P. Blasco, Leslie J. Shinnick, Katie J. Ketter and Jean C. Krause (2008). "BKB-SIN and ANL Predict Perceived Communication Ability in Cochlear Implant Users," poster presentation at the 2008 American Auditory Society Meeting, Scottsdale, AZ.

18. Michelle Bianchi, Catherine L. Rogers, Stefan A. Frisch, and Jean C. Krause (2007). "Vowel space and formant dynamics of vowels produced by monolingual and bilingual talkers in conversational and clear speech styles," *New Orleans: J. Acoust. Soc. Am.*, Vol. 122, No. 5, Pt. 2, pg. 3030.
19. Catherine L. Rogers, Michelle Bianchi, Stefan A. Frisch, and Jean C. Krause (2007). "Effects of clear speech on duration and fundamental frequency of vowels produced by monolingual and bilingual talkers," *New Orleans: J. Acoust. Soc. Am.*, Vol. 122, No. 5, Pt. 2, pg. 3028.
20. Teresa DeMasi, Catherine L. Rogers and Jean C. Krause (2007). "Clear speech effects for vowels produced by monolingual and bilingual talkers," Salt Lake City: *J. Acoust. Soc. Am.*, Vol. 121, No. 5, Pt. 2, p. 3044.
21. Katie J. Ketter, Gail S. Donaldson, and Jean C. Krause, (2007). "Acceptable noise levels in normal-hearing listeners: Effect of instruction set and relation to speech recognition in noise," presentation at the Florida Chapter of the Acoustical Society of America, Tampa, FL.
22. Jean C. Krause, Katherine Pelley, Dana Husaim, Morgan Tessler, and Jessica Lindsay (2007). "Assessing interpreter efficacy, part one: The effects of speaking rate, experience, and lag time on Cued Speech transliterator accuracy," presentation at the Fourth International Adult Aural Rehabilitation Conference, Portland, ME.
23. Jane Smart and Jean C. Krause (2007). "Psychometric functions of clear and conversational speech for young normal hearing listeners in noise," presentation at the Fourth International Adult Aural Rehabilitation Conference, Portland, ME.
24. Jean C. Krause (2006). "The intelligibility advantage of clear speech in noise and reverberation backgrounds: Effects of speaking rate," Honolulu: *J. Acoust. Soc. Am.*, Vol. 120, No. 5, Pt. 2, pg. 3323. **Invited presentation**, special session on "Psychological aspects of speech in rooms."
25. Jennifer Lister, Richard Roberts, Rachel McArdle, Catherine Rogers, Jean Krause (2006). "The stability, validity, and sensitivity of an adaptive clinical test of temporal resolution." Innsbruck, Austria: 28th International Congress of Audiology.
26. Billie Jo Shaw and Jean C. Krause (2006). "Clear Speech at Normal Rates: Intelligibility for Older Hearing-Impaired Adults," poster presentation at the 2006 ASHA Convention, Miami, FL.
27. Katherine Pelley, Dana Husaim, Morgan Tessler, Jessica Lindsay, and Jean Krause (2006). "The Effect of Speaking Rate and Experience on Cued Speech Transliterator Accuracy," poster presentation at the 2006 ASHA Convention, Miami, FL.
28. Jean Krause, Judy Kegl, and Brenda Schick (2006). "Towards adapting the EIPA to include Cued Speech as a 'language' option," presentation at the Cued Speech 40th Anniversary Convention - Celebrating Language, Literacy and Diversity, Towson, MD.
29. Jean Krause, Dana Husaim, Jessica Lindsay, Katherine Pelley, and Morgan Tessler (2006). "The Effect of Speaking Rate and Experience on Transliterator Accuracy," presentation at the Cued Speech 40th Anniversary Convention - Celebrating Language, Literacy and Diversity, Towson, MD.
30. Athina Panagiotopoulos and Jean C. Krause (2005). "The benefits of clear speech at normal rates for older normal hearing adults," presentation at the Third International Adult Aural Rehabilitation Conference, Portland, ME.
31. Jean C. Krause and Louis D. Braida (2005). "The role of energy distribution in the benefit of clear speech at normal rates," presentation at the Third International Adult Aural Rehabilitation Conference, Portland, ME.
32. Jean C. Krause and Louis D. Braida (2004). "Phonetic level error patterns in conversational and clear speech," *From Sound to Sense: 50+ Years of Discoveries in Speech Communication Conference Proceedings*, p. C-286.
33. Jean C. Krause and Louis D. Braida (2003). "Properties of Naturally Produced Clear Speech and Implications for Intelligibility Enhancement," *Second Int. Adult Aural Rehab. Conf. Proc.*.
34. Paul Duchnowski, Louis Braida, Maroula Bratakos, David Lum, Matthew Sexton, and Jean Krause (1998). "A Speechreading Aid Based on Phonetic ASR," *Proc. Int. Conf. Spoken Lang. Proc.*, Vol. 7, p. 3289.
35. Jean C. Krause and Louis D. Braida (1998). "Properties of naturally produced clear speech at normal speaking rates," *Proc. Int. Conf. Sensory Aids*.
36. J.C. Krause and L.D. Braida (1997). "Properties of naturally produced clear speech at normal speaking rates," presentation at American Speech-Language-Hearing Association meeting, Boston, Massachusetts.
37. Jean Krause and Louis Braida (1996). "Properties of naturally produced clear speech at normal speaking rates," Honolulu: *J. Acoust. Soc. Am.*, Vol. 100, pg. 2828.
38. Jean Krause and Louis Braida (1995). "The effects of speaking rate on the intelligibility of speech for various speaking modes," St. Louis: *J. Acoust. Soc. Am.*, Vol. 98, pg. 2982.

TEACHING EXPERIENCE:

Courses Taught

1. Audiology Doctoral Project Seminar (SPA 7384) – Fall 2017, Spring 2018, Summer 2018, Fall 2019
2. Audiology Instrumentation (SPA 5132) – Spring 2017
3. Hearing Science (SPA 3030) – Fall 2016, Spring 2017, Fall 2017, Spring 2018
4. Research Foundations in Hearing Science (SPA 7812) – Spring 2015
5. Introduction to Cued Speech (INT 4490) – Spring 2012, Spring 2014, Spring 2015
6. Cued Speech and its Clinical Application (SPA 6930) – Spring 2012, Spring 2013

7. Math and Physics for Speech and Hearing (SPA 5153) – Fall 2004, Fall 2007, Fall 2008, Fall 2009, Fall 2011, Fall 2012, Fall 2014, Fall 2016, Fall 2017, Fall 2019
8. Doctoral Seminar (SPA 5506) – Fall 2004, Spring 2005, Fall 2005, Spring 2006, Fall 2006, Spring 2007, Fall 2011, Fall 2012, Spring 2013
9. Digital Signal Processing for Speech and Hearing (SPA 7931) – Fall 2009
10. Introduction to Cued Speech and its Applications (SPA 4930 / SPA 6930) – Spring 2006, Spring 2007, Spring 2008, Spring 2009, Spring 2010
11. Phonetics (SPA 3112) – Fall 2003, Fall 2004, Fall 2005, Fall 2006
12. Speech Perception and Sensorineural Hearing Loss (SPA 6930) – Spring 2004, Spring 2005
13. Hearing Science (LIN 213 , University of Southern Maine) – Spring 2003

Courses Developed

1. Digital Signal Processing for Speech and Hearing (SPA 7931, University of South Florida)
2. Introduction to Cued Speech and its Applications (SPA 4930 / SPA 6930) / Introduction to Cued Speech (INT 4490)
3. Cued Speech and its Clinical Application (SPA 6930)
4. Doctoral Seminar (SPA 5506)

Guest Lectures

- Transliteration (INT 4211, University of South Florida)
Dates/Semesters: Fall 2019, Spring 2020 **Time commitment:** 3 hours per semester
Topics covered: SEE Signs, Manually Coded English, Cued Speech, & Mouth Movements in Transliteration
- Biomedical Engineering (ECH 4931, University of South Florida)
Dates/Semesters: Fall 2011, Spring 2012, Fall 2012, Spring 2013 **Time commitment:** 1.5 hours per semester
Topics covered: Research related to acoustic properties of clear speech and possibilities for intelligibility enhancement
- Pediatric Audiology (SPA 6305, University of South Florida)
Dates/Semesters: Summer 2004, Fall 2005, Summer 2007, Summer 2008, Summer 2009 **Time commitment:** 2 hours per semester
Topics covered: Basic information on Cued Speech and its applications
- Speech Perception/Production & Sensorineural Hearing Loss (SPA 6676, University of South Florida)
Dates/Semesters: Fall 2008 **Time commitment:** 1 hour
Topics covered: overview of the effects of sensorineural hearing loss on speech perception
- Practicum in Aural Rehabilitation for Speech Language Pathology (SPA 6305, University of South Florida)
Dates/Semesters: Fall 2005, Spring 2006, Fall 2006, Spring 2007 **Time commitment:** 9 hours per semester
Topics covered: brief introduction to all the aspects of the Cued Speech system
- Special Topics: Adv Comm Disorders Honors (SPA 4930, University of South Florida)
Dates/Semesters: Fall 2006, Fall 2007 **Time commitment:** 1 hour per semester
Topics covered: overview of my research program
- Introduction to Interpreting in Public Schools (SPA 3660, University of South Florida)
Dates/Semesters: Fall 2004 **Time commitment:** 2 hours
Topics covered: Basic information on Cued Speech interpreting and oral interpreting
- Aural Rehabilitation (CD 542, Boston University Department of Communication Disorders)
Dates/Semesters: 1999 – 2003 **Time commitment:** 1 hour per semester
Topics covered: information regarding the Cued Speech system, its development, and an overview of relevant research

Other

- Developed the Basic Instructor Workshop for the National Cued Speech Association, a 2-day course designed to train individuals interested in becoming certified instructors of Cued Speech; co-taught the workshop 2-3 times annually, at various locations across the country (1999 - present)
- **Certified Instructor of Cued Speech** (1997 - present): conducted short courses in Beginning and Intermediate Cued Speech for New England Cued Speech and other regional Cued Speech organizations (New York Cued Speech Association, Maryland Cued Speech Association, Cued Speech Association of Maine); taught classes for both hearing and deaf adults as well as hearing children (ages 5 – 10); tutored deaf children and hearing siblings (ages 5 – 10)
- Developed transliterator/interpreter training modules for New England Cued Speech; taught modules related cueing mechanics and identifying cueing errors at locations across the country (1999 - 2000)
- **Teaching Assistant**, MIT Department of Electrical Engineering (Spring 1995): instructed recitation sections and assisted with grading for Applied Probability class; facilitated group discussions and learning in smaller tutorial sections.
- **Teaching Assistant**, Georgia Tech Department of Mathematics (Fall 1992 - Spring 1993): planned and taught recitation sections for Honors Calculus III sequence; aided in the grading of students' exams and computer projects.
- tutored elementary school children, Techwood Tutorial Project (similar to Big Sister program) (Fall 1989 - Spring 1993)

Doctoral Dissertation and Audiology Doctoral Project (ADP) Committees

- Ashley Moore - **Chair** with co-Chair: Gospodinsky (11/19-present)
- Stephanie Pena - **Chair** with co-Chair: Carr (3/19-present)

- Jelena LaPierre - Committee member (12/17-present)
- Morgan O'Malia - Committee member, "Effects of Age and Cochlear-Implant Simulation on Temporal Processing of Vowel Sequences" (12/17-4/20)
- Alex Barnard - **Chair**, "Durational Cues to Word Boundaries in Conversational and Clear Speech at Slow and Normal Speaking Rates" (12/17-4/20)
- Jane Smart - **Chair** (with Co-Chair: Frisch), "Lexical Influence in Phoneme Perception with Non-degraded and Spectrally-degraded Speech" (7/17-5/19)
- Rebecca Sherman - **Chair** (with Co-Chair: Carr), "The Parents' Perspective: Parents' Needs Following Diagnosis of Hearing Loss, A Systematic Review" (9/16-3/19)
- Ben Russell - Committee member, "Static and Dynamic Spectral Acuity in Cochlear Implant Listeners for Simple and Speech-like Stimuli" (8/11-7/16)
- Darius Zamani - **Chair** (12/14-12/15)
- Soo Hee Oh - Committee member, "Top-Down Processes in Simulated Combined Electric-Acoustic Hearing: The Effect of Context and the Role of Low Frequency Cues in the Perception of Temporally Interrupted Speech" (10/12-12/14)
- Madeline Coffey - Committee member, "Auditory Training of the Poorer Ear Alone in Bilateral Cochlear Implant Users having Asymmetric Unilateral Performance." (1/12-present)
- Lindsay Johnson - Committee member, "Identification of vowels in /dVd/ syllables by cochlear implant users: Reliance on vowel duration cues" (1/12-6/13)
- Lisa Marx - Committee member, "Auditory training of bilateral asymmetrical cochlear implant users" (1/12-6/13)
- Arlene Hicklin - Committee member, "Test-retest reliability of time compressed speech in younger and older adults" (6/11-4/13)
- Amanda Cooley, "Formant discrimination by cochlear implant users" - Committee member (6/11-3/13)
- Michelle Frenton - Committee member, "Effects of noise, competing task, and neighborhood differences on native vs. non-native listeners' word-entry response times in a spoken word-recognition task" (4/11-3/13)
- Andy Hague - **Chair**, "Relationship between accuracy and intelligibility in messages produced by Signing Exact English transliterators" (3/10-3/13)
- Amanda Kluzynski - **Chair**, "The relationship between accuracy and intelligibility of Conceptually Accurate Signed English (CASE) transliterator messages" (3/10-3/13)
- Ida Sutton (Dept of Special Education) - Committee member (1/05-4/12)
- Emily Cardenas - Committee member, "Identification of Vowels in /dVd/ Syllables by Cochlear Implant Users" (7/10-3/12)
- Heather Hoefler - Committee member, "The Effects of Cognitive Demand on Word Recognition by Native and Non-Native Listeners in Quiet and in Noise" (7/10-3/12)
- Robin Berry Edmiaston - Committee member, "The development of the University of South Florida Auditory Processing Disorders test battery: Young adults with normal hearing" (3/09-5/11)
- Amanda Tikkanen - Committee member, "Relationship between temporal resolution and word recognition in noise: Children" (3/09-3/11)
- Ari Brooks Hansen - **Chair**, "Relationship between gap detection thresholds and benefit from clear speech at normal and slow speaking rates" (9/08-3/11)
- Heather Carlson - **Co-chair**, "The development of an adaptive clinical test of temporal resolution: Level differences" (1/09-3/10)
- Ben Russell - Committee member, "Pitch-ranking of electric and acoustic stimuli by cochlear implant users with the Hi-Resolution and Fidelity120 speech processing strategies" (1/09-3/10)
- Ann Siapno - **Chair**, "Intelligibility of clear speech at normal and slow rates for elderly hearing impaired listeners" (1/08-11/09)
- Patricia Dawson - Committee member, "Within-subjects comparison of the HiRes and Fidelity120 speech processing strategies: vowel and consonant recognition" (9/07-4/09)
- Tammy Tam - Committee member, "Effects of age and hearing loss on perception of dynamic speech cues" (6/04-12/08)
- Lamar Borden - Committee member, "Within-subjects comparison of the HiRes and Fidelity120 speech processing strategies: Sentence recognition in noise." (9/07-11/08)
- Danielle DeBiase - **Co-chair**, "The development of an adaptive clinical test of temporal resolution: Sound card differences." (1/07-10/08)
- Shawn Lowe - **Co-chair** (1/07-12/07)
- Gabriel Pitt - Committee member, "Age Related Changes To The P1-N1-P2 Response To Gaps In Noise: Within- And Across-Channel Conditions." (5/05-5/07)
- Halle Lyons - Committee member, "Characteristics of the Binaural Interaction Component (BIC) in the Auditory Middle Latency Response (AMLR) of Normal Hearing Adults." (5/05-5/07)
- Cecilia Camacho-Ramirez - Committee member, "Effect of Task on Temporal Gap Perception for Adults with Normal Hearing." (6/05-5/07)
- Lauri Portz - Committee member, "Systematic Review: A Guide For The Doctor Of Audiology Student." (6/05-7/07)
- Chereece Andrews - Committee member, "Cochlear Implant Selection Criteria: A National Survey." (8/04-4/06)
- Dana Libman - Committee member, "A Plan for Managing Hearing Conservation Programs at the University of South Florida." (8/04-7/05)
- Sheetal Vyas - Committee member, "Hearing sensitivity and acoustic environment of percussion students." (11/03-12/04)

- Julie Coudurier - Committee member, "Efficacy of the TEL-PHONE Telecoil Simulator Program." (8/03-4/04)

Master's Thesis Committees

- Katherine Pelley - **Thesis director**, "Factors Affecting Message Intelligibility of Cued Speech Transliterators." (5/07-7/08)
- Michelle Bianchi - Committee member, "Effects of Clear Speech and Linguistic Experience on Acoustic Characteristics of Vowel Production." (5/07-7/07)
- Stacy Kile - Committee member, "The Influence of Dialect on the Perception of Final Consonant Voicing." (1/07-5/07)
- Jane Smart - **Thesis director**, "Psychometric Functions of Clear and Conversational Speech for Young Normal Hearing Listeners in Noise." (8/06-7/07)
- Teresa DeMasi - Committee member, "Clear Speech Effects for Vowels Produced by Monolingual and Bilingual Talkers." (5/06-7/07)
- Billie Jo Shaw - **Thesis director**, "Intelligibility of Clear Speech at Normal Rates For Older Adults with Hearing Loss." (1/05-12/06)
- Adrienne Stearns - Committee member, "Ultrasound analysis of tongue twisters and perception of speech errors identified by ultrasound." (8/05-5/06)
- Athina Panagiotopoulous - **Thesis director**, "The Benefits of Clear Speech at Normal Rates for Older Listeners With Normal Hearing." (4/04-7/05)
- Sarah Hardin - Committee Member, "Reliability of Hand Measures of Ultrasound Analysis." (4/05-7/05)
- Merete Møller Glasbrenner - Committee member, "Vowel Identification by Monolingual and Bilingual Listeners: Use of Spectral Change and Duration Cues." (1/05-7/05)

Undergraduate Honors Theses

- Caleb Brandenburg, Honors College - **Thesis director** (9/14-5/15)
- Hailee Stewart, Honors College - **Thesis director** (9/14-5/15)
- Kathryn Turner, Honors College - **Thesis director**, "An Exploration of Cued Speech As an Alternate Form of Communication for Those Who Are Deaf and Hard of Hearing" (9/13-4/14)
- Abby Bennett, Honors College - **Thesis director**, "The Relationship between Speechreadability and Intelligibility in Cued Speech Transliterators" (9/09-5/10)
- Amanda Price, Honors College - Committee Member (Chair: Michael Fountain, College of Business), "Opportunities and Challenges of Physically Impaired Individuals in Becoming Successful Entrepreneurs" (10/08-5/09)
- Karyl Hobbs, Honors College - **Thesis co-director** (with Kelly Lamar Crain), "An Action Theory Analysis of the Acculturation of Deaf Children in Relation to their Mother's Intentions." (9/08-5/09)
- Kendall Tope, Departmental Honors Program - **Thesis director**, "The Effect of Bilingualism on Intelligibility of Classroom Materials" (12/07-7/08)
- Katie Ketter, Honors College - Committee Member, "Acceptable Noise Levels in Normal-Hearing Listeners: Effect of Instruction Set and Relation to Speech Recognition in Noise." (1/07-5/07)
- Stacy Kolbe, Honors College - Committee member, "A Comparative Study of the Language Acquisition of Hearing and Deaf Children." (1/06-5/06)
- Jessica Lindsay, Departmental Honors Program - **Thesis director**, "The Effect of Presentation Rate, Experience, and Lag Time on the Accuracy of a Cued Speech Transliteration." (11/05-5/06)
- Katherine Pelley, Departmental Honors Program - **Thesis director**, "The Effect of Rate of Presentation, Experience, and Lag Time on the Accuracy of Cued Speech Transliterators." (11/05-5/06)
- Dana Husaim and Morgan Tessler, Honors College - **Thesis director**, "The Effect of Speaking Rate, Experience, and Lag Time on the Accuracy of Cued Speech Transliterators." (5/05-1/06)
- Deanne Adams, Departmental Honors Program - Committee member, "The N1-P2 auditory evoked response to stimuli interrupted by a silent gap." (5/05-7/05)
- Stacy Kile, Departmental Honors Program - **Thesis director**, "An Evaluation of CASE Transliteration Accuracy." (1/05-7/05)

Other Graduate and Undergraduate Student Supervision

- Ashley May, Graduate Assistant, AuD level (1/20-5/20)
- John Bush-Sheets, Graduate Assistant, AuD level (8/19-12/19)
- Casey Curran, Graduate Assistant, AuD level (1/18-present)
- Alex Barnard, Graduate Assistant, AuD level (8/17-12/17)
- Rachael Pennock, Graduate Assistant, AuD level (1/17-present)
- Luke Wassermann, Graduate Assistant, AuD level (8/16-12/16)
- Natalie Tarantola, Undergraduate Assistant (1/14-5/14)
- Michelle Simha, Graduate Assistant, AuD level (8/12-12/12)
- Jane Smart, Graduate Assistant, PhD level (1/12-5/12)
- Andrew Hague, Graduate Assistant, AuD level (1/10-5/10)
- Micaela Davis, Thesis alternative project, Master's level (8/09-7/10)
- Emily Cardenas, Graduate Assistant, AuD level (8/09-12/09)
- Adam Dubbin, Graduate Assistant, AuD level (8/08-9/08)

- Jane Smart, Graduate Assistant, Master's level (8/05-5/07)
- Raven Windspirit, Directed Research, Master's level (1/04-5/04)
- Wendy Park, Graduate Assistant, Master's level (8/03-7/05)
- Nicole Salgado, Undergraduate Assistant (5/04-12/04)
- Suzanne King, Undergraduate Volunteer Teaching Assistant (8/06-12/06)
- Kimberly Hodge, Undergraduate Volunteer Teaching Assistant (8/05-12/05)

Student Awards

- Athina Panagiotopoulos (Master's thesis student), College of Arts and Sciences Fourth Annual Graduate Research Symposium, Social Science Session. Award: \$400 travel grant

OTHER PROFESSIONAL ACTIVITIES:

Editorial Service

1. Ongoing Journal Reviewer for *Speech Communication*
2. Ongoing Journal Reviewer for *Journal of Speech, Hearing, and Language Research*
3. Ongoing Journal Reviewer for *Journal of Deaf Studies and Deaf Education*
4. Ongoing Journal Reviewer for *Journal of the Acoustical Society of America*
5. Reviewer for *International Journal of Image and Graphics* (2009-2010)
6. Reviewer for *Journal of Phonetics* (2009)
7. Reviewer for *Trends in Amplification* (2009)
8. International Editorial Board, *Iranian Audiology* (2002-2004)
9. Member of the Technical Committee for the 2012 *Listening Talker Workshop* (Fall 2011-Spring 2012)

Community Engagement

1. Established the **Cued Speech Initiative @ USF**, with Dr. Tricia Blake-Rahter. (2007-present)
 - Designed and implemented **website (<http://cuedspeech.usf.edu>)**, including creation of content
 - Led development of **weekend workshops** for the community
 - Mentored/supervised individuals who taught at the workshops
2. Supported Pinellas County Schools effort to find and train a Cued Speech transliterator (2007)
3. Assisted in a homicide investigation at the request of Jay Pruner, Assistant State Attorney, Homicide Division: donated oral transliterating services, evaluating speechreadability of an altercation recorded to videotape (2005)