# Psyche Loui

#### Curriculum Vitae

Department of Music College of Arts, Media and Design Northeastern University Interdisciplinary Science and Engineering Complex 624 360 Huntington Ave Boston, MA 02115

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## **Employment**

2018 - Present Northeastern University

Assistant Professor of Creativity and Creative Practice

Department of Music

2013 – Present Wesleyan University

Assistant Professor

Department of Psychology

Program in Neuroscience & Behavior

College of Integrative Sciences

#### Education

2003-2007 University of California at Berkeley

Ph.D. in Psychology (Specialization: Cognition, Brain, and Behavior)

Advisors: David L. Wessel, Ph.D.; Ervin R. Hafter, Ph.D. Dissertation Title: *Acquiring a New Musical System* 

1999-2003 Duke University

B.S. in Psychology A.B. in Music

Certificate in Neuroscience

## Previous Employment

2008-2013	Beth Israel Deaconess Medical Center and Harvard Medical School
	Instructor in Naviology

Instructor in Neurology

2007-2008 Beth Israel Deaconess Medical Center and Harvard Medical School

Research Fellow

2003-2006 Center for New Music and Audio Technologies

Graduate Student Researcher

2003-2006 UC Berkeley Auditory Perception Laboratory

Graduate Student Researcher

2003 Duke University Center for Cognitive Neuroscience

Research Associate

# **Teaching Experience**

2018- Northeastern University

Assistant Professor

Courses:

Music Perception and Cognition

2013-2018 Wesleyan University

Assistant Professor

Courses:

Cognitive Neuroscience

Music Perception and Cognition

Advanced Research Methods in Auditory Cognitive Neuroscience

Research Methods in Cognition

2003-2007 UC Berkeley Departments of Psychology & Music

Graduate Student Instructor

Courses:

Introduction to Psychology

Music Perception and Cognition

Human Learning and Memory

Biological Psychology and Human Dysfunction

Language Acquisition

2006 Music Technology Online Repository (MUTOR) e-learning project

*Co-author of online course* (http://www.mutor.org)

1997-2003 RN Harris Magnet School; private employers

Violin, piano, and music theory teacher

# **Grant Support**

Remediating Inattention via Algorithmically Generated Music. NSF-STTR. 2017-2018. \$250,000 (Wesleyan sub-award: \$112,361). Role: Co-PI.

Structural and Functional Biomarkers of Aesthetic Creativity and Imagination. Imagination Institute.

2015-2017. \$200,000. Role: PI.

Auditory Biofeedback for Seizure Detection and Control. GRAMMY Foundation. 2015-2017. \$20,000. Role: PI.

EEG Sonification for the Detection of Seizures. Wesleyan University Grants In Support of Scholarship (Faculty-Student Internship).

2014. \$3,200. Role: PI.

Genomic Markers of Tone-Deafness. Harvard Catalyst Clinical Research Center Laboratory Support.

2012-2013. \$4,940. Role: PI.

The Role of Hyperconnectivity in Creative Perception and Cognition. Templeton Foundation for Positive Neuroscience.

2010-2012. \$180,000. Role: PI.

Neural Control of Vocal Production in Tone-Deafness. NIH R01DC009823-01.

2008-2013. \$2,120,800. Role: Co-Investigator. (PI: Gottfried Schlaug).

 $Emotional\ Functioning\ in\ Tone-Deafness.\ GRAMMY\ Foundation.$ 

2008-2010. \$40,000. Role: PI.

Advancing Interdisciplinary Research in Singing (AIRS). Social Sciences and Humanities Research Council (SSHRC).

2009-2016. \$2,500,000. Role: Collaborator (PI: Annabel J Cohen).

Statistical Learning of Musical Grammars. UC Berkeley Dissertation Award. 2006-2007. \$2,000. Role: PI.

National Sciences & Engineering Research Council of Canada, Postgraduate Scholarship 2004-2005. \$17,300. (Declined to accept UC Berkeley Graduate Fellowship.)

#### Awards and Honors

Templeton Positive Neuroscience Award, Positive Psychology Center, University of Pennsylvania (2010)

Young Researcher Award, ESCOM (European Society for Cognitive Science of Music) (2006)

Department of Psychology Dissertation Research Fund, UC Berkeley (2006-2007)

Graduate Fellowship, UC Berkeley (2003-2008)

Graduate Training Grant, UC Berkeley (2004-2005)

Conference Travel Grant, UC Berkeley Graduate Division (2005)

National Sciences & Engineering Research Council of Canada (NSERC), Postgraduate Scholarship (2004)

Mueller Prize for Excellence in Music, Duke University (2003)

Concerto Competition Winner, Duke University (2002-2003)

Graduation Honors, Duke University (2003)

US National Dean's List (2002)

Duke University Trinity College Dean's List (2000-2003)

Benenson Award, Duke University Institute of the Arts (2002)

Psi Upsilon Scholarship (2002)

Ciompi Quartet Scholarship, Duke University (2002)

Ramón y Cajal Award for Excellence in Neurobiology, Duke University (1999)

#### **Publications**

h-index (scholar.google.com): 21

Peer-reviewed journal articles (note: \* denotes trainees)

- **Loui, P.** & Kramer, A. Better Models: Challenges and Promises for Improved Outcomes in Music Therapy. In review.
- \*Zeng, T., \*Przysinda, E., \*Pfeifer, C., \*Arkin, C., & Loui, P. White Matter Connectivity Reflects Success in Musical Improvisation. In review.
- \*Arkin, C., \*Przysinda, E., \*Zeng, T., \*Pfeifer, C., & Loui, P. Relating Brain Structure to Success in Musical Improvisation. In review.
- Halwani, G., Loui, P., Guenther, F., Li, H., Schlaug, G. Cortical control of vocal pitch feedback. In review.
- **Loui, P.,** Patel, A.D., Gaab, N., Wong, L.M., Hanser, S., Schlaug, G. (2018). Music, Sound and Health: A Meeting of Minds in the Neurosciences of Music. *Annals of the New York Academy of Sciences*, 1423(1), 7-9.
- **Loui, P.** (2018). Real-time and Flexible Creativity in Musical Improvisation: Review and a Model. *Annals of the New York Academy of Sciences, 1423*(1), 138-145.
- \*Hohmann, A., **Loui, P.,** \*Li, H., Schlaug, G. (2018). Reverse-Engineering Tone-Deafness: Disrupting Pitch-Matching by Creating Temporary Dysfunctions in the Auditory-Motor Network. *Frontiers in Human Neuroscience*, *12*(9).
- \*Przysinda, E., \*Zeng, T., \*Maves, K., \*Arkin, C., & Loui, P. (2017). Jazz Improvisers Reveal Role of Expectancy in Human Creativity. *Brain and Cognition*, 119, 45-53.
- **Loui, P.,** \*Patterson, S., Sachs, M., \*Leung, Y., \*Zeng, T. \*Przysinda, E. (2017). White Matter Correlates of Musical Anhedonia and Its Implications for the Evolution of Music. *Frontiers in Psychology, 8*(1664).
- \*Guetta, R., & Loui, P. (2017). When music is salty: The crossmodal associations between sound and taste. *PLoS ONE*, *12*(3), e0173366.
- \*Abel, M. K., \*Li, H. C., Russo, F. A., Schlaug, G., & Loui, P. (2016). Audiovisual Interval Size Estimation Is Associated with Early Musical Training. *PLoS ONE, 11*(10), e0163589.
- \*Sachs, M. E., Ellis, R. J., Schlaug, G., & Loui, P. (2016). Brain Connectivity Reflects Human Aesthetic Responses to Music. *Social, Cognitive, and Affective Neuroscience*, 11(6), 884-891.
- \*Jung, H., \*Sontag, S., \*Park, Y. S., & Loui, P. (2015). Rhythmic Effects of Syntax Processing in Music and Language. *Frontiers in Psychology, 6*.
- \*Lolli, S., \*Lewenstein, A., \*Basurto, J., \*Winnik, S., & Loui, P. (2015). Sound Frequency Affects Speech Emotion Perception: Results from Congenital Amusia. *Frontiers in Psychology, 6*.

- Yuskaitis, C., Parviz, M., Loui, P., Wan, C., & Pearl, P. (2015). Neural Mechanisms Underlying Musical Pitch Perception and Clinical Applications Including Developmental Dyslexia. *Current Neurology and Neuroscience Reports*, 15(8), 1-7.
- **Loui, P.,** Demorest, S. M., Pfordresher, P. Q., & \*Iyer, J. (2015). Neurological and Developmental Approaches to Poor Pitch Perception and Production. *Annuals of the New York Academy of Sciences*, 1337, 263-271.
- Loui, P. (2015). A Dual-Stream Neuroanatomy of Singing. *Music Perception*, 32(3), 232-241. Recommended by Faculty of 1000
- Demorest, S. M., Pfordresher, P. Q., Dalla Bella, S., Hutchins, S., **Loui, P.,** Rutkowski, J., & Welch, G. F. (2015). Methodological perspectives on singing accuracy: An introduction to the special issue on singing accuracy (Part 2). *Music Perception, 32*(3), 266-271.
- Pfordresher, P. Q., Demorest, S. M., Dalla Bella, S., Hutchins, S., **Loui, P.,** Rutkowski, J., & Welch, G. F. (2015). Theoretical perspectives on singing accuracy: An introduction to the special issue on singing accuracy (Part 1). *Music Perception*, 32(3), 227-231.
- Devaney, J., **Loui, P.,** Hafter, E. R., & Krumhansl, C. L. (2014). David Wessel (6 October, 1942 13 October, 2014): Tributes and remembrances. *Psychomusicology: Music, Mind & Brain, 24*(3), 274-278.
- Choi, I., Bharadwaj, H., Bressler, S., **Loui, P.**, Lee, K., & Shinn-Cunningham, B. (2014). Automatic processing of abstract musical tonality. *Frontiers in Human Neuroscience*, 8.
- **Loui, P.,** \*Koplin-Green, M, \*Frick, M., \*Massone, M. J. L. (2014). Rapidly Learned Identification of Epileptic Seizures from Sonified EEG. *Frontiers in Human Neuroscience*. 8.
- \*Harrison, L. & Loui, P. (2014). Thrills, Chills, Frissons, and Skin Orgasms: Toward an Integrative Model of Transcendent Psychophysiological Moments in Music. *Frontiers in Psychology*, 5.
- **Loui, P.,** Bachorik, J., Li, H. C., & Schlaug, G. (2013). Effects of Voice on Emotional Arousal. *Frontiers in Psychology*, 4.
- \*Zamm, A., Schlaug, G., & Loui, P. (2013). Pathways to Seeing Music: Enhanced Structural Connectivity in Colored-Music Synesthesia. *NeuroImage*, 74, 359-366.
- **Loui, P.,** \*Zamm, A., & Schlaug, G. (2012). Enhanced Functional Networks in Absolute Pitch. *NeuroImage*, 63(2), 632–640. (Selected for cover art of *NeuroImage*)
- **Loui, P.** (2012). Learning and liking of melody and harmony: Further studies in artificial grammar learning. *Topics in Cognitive Science*, *4*, 1-14.
- **Loui, P.,** Schlaug, G. (2012). Impaired learning of event frequencies in tone-deafness. *Annuals of the New York Academy of Sciences, 1252(1),* 354-360.
- Altenmuller, E., Demorest, S. M., Fujioka, T., Halpern, A. R., Hannon, E. E., **Loui, P.,** Majno, M, Oechslin, M.S., Osborne, N., Overy, K., Palmer, C., Peretz, I., Pfordresher, P.Q., Särkämö, T., Wan, C.Y., Zatorre, R.J. (2012). Introduction to The Neurosciences and Music IV: Learning and Memory. *Annuals of the New York Academy of Sciences*, 1252(1), 1-16.
- **Loui, P.,** \*Kroog, K., \*Zuk, J., Winner, E., & Schlaug, G. (2011). Relating Pitch Awareness to Phonemic Awareness in Children: Implications for Tone-Deafness and Dyslexia. *Frontiers in Psychology*, *2*, 111.

- \*Halwani, G. F., **Loui, P.,** \*Rueber, T., & Schlaug, G. (2011). Effects of practice and experience on the arcuate fasciculus: comparing singers, instrumentalists, and non-musicians. *Frontiers in Psychology*, *2*, 156.
- **Loui, P.,** \*Li, H., Schlaug, G. (2011). White Matter Integrity in Right Hemisphere Predicts Pitch-Related Grammar Learning. *NeuroImage*, *55*(2), 500-507.
- **Loui, P.,** \*Li, H., \*Hohmann, A., Schlaug, G. (2011). Enhanced Cortical Connectivity in Absolute Pitch Musicians: a Model for Local Hyperconnectivity. *Journal of Cognitive Neuroscience*, *23(4)*, 1015-1026.
- Mathys, C., **Loui, P.,** Zheng, X., Schlaug, G. (2010). Non-invasive brain-stimulation applied to Heschl's gyrus modulates pitch discrimination. *Frontiers in Psychology, 1*, 193. doi: 10.3389/fpsyg.2010.00193
- **Loui, P.,** Wan, C., Schlaug, G. (2010). Neurological bases of musical disorders and their implications for stroke recovery. *Acoustics Today*, *6*, 28-36.
- **Loui, P.,** Wessel, D. L., Hudson Kam, C. L. (2010). Humans Rapidly Learn Grammatical Structure in a New Musical Scale. *Music Perception*, *27(5)*, 377-388.
- **Loui, P.**, Alsop, D., Schlaug, G. (2009). Tone-Deafness: a Disconnection Syndrome? *Journal of Neuroscience*, 29(33), 10215-10220.
- **Loui, P.,** Schlaug, G. (2009). Investigating Musical Disorders with Diffusion Tensor Imaging: A Comparison of Imaging Parameters. *Annals of the New York Academy of Sciences*, 1169, 121-125.
- **Loui, P.,** Wu, E. H., Wessel, D. L., Knight, R. T. (2009). A Generalized Mechanism for Perception of Pitch Patterns. *Journal of Neuroscience*, *29*(2), 454-459.
- Klostermann, E.C., **Loui, P.,** Shimamura, A.P. (2009). Activation of right parietal cortex during memory retrieval of non-linguistic auditory stimuli. *Cognitive, Affective and Behavioral Neuroscience, 9(3),* 242-248.
- Bachorik, J., Bangert, M., **Loui, P.,** Larke, K., Berger, J., Rowe, R., Schlaug, G. (2009). Emotion in Motion: Investigating the Time-Course of Emotional Judgments of Musical Stimuli. *Music Perception*, *26*, 355-364.
- **Loui, P.,** Guenther, F. H., Mathys, C., Schlaug, G. (2008). Action-Perception Mismatch in Tone-Deafness. *Current Biology*, *18*(8), R331-332.
- **Loui, P.,** Wessel, D. L. (2008). Effects of Set Size on the Learning and Liking of an Artificial Musical System. *Musicae Scientiae*, *12*(2), 201-218.
- **Loui, P.,** Wessel, D. L. (2007). Harmonic Expectation and Affect in Western Music: Effects of Attention and Training. *Perception and Psychophysics*, 69(7), 1084-1092.
- **Loui, P.,** Grent-'t-Jong, T., Torpey, D., Woldorff, M. G. (2005). Effects of Attention on the Neural Processing of Harmonic Syntax in Western Music. *Cognitive Brain Research*, *25*, 678-687.

#### Peer-reviewed conference proceedings

**Loui, P.,** Przysinda, E.\*, Aklaff, P., Maves, K.\*, Arkin, C.\*, Zeng, H.\* (2016). Jazz Improvisation as a Model of the Creative Process: Heightened Perceptual Awareness and Sensitivity. *Proceedings of the 14<sup>th</sup> International Conference for Music Perception and Cognition.* 175-179.

- Pearce, M., Rohrmeier, M., **Loui, P.,** Large, E., Kim, J. C., Toiviainen, P., & Brattico, E. (2013). Music cognition: Bridging computation and insights from cognitive neuroscience. *Proceedings of the 31st Annual Conference of the Cognitive Science Society*, Berlin, Germany.
- **Loui, P.,** \*Zamm, A., & Schlaug, G. (2012). Absolute Pitch and Synesthesia: Two Sides of the Same Coin? Shared and Distinct Neural Substrates of Music Listening. *Proceedings of the 12th International Conference for Music Perception and Cognition*, 618-623.
- **Loui, P.,** \*Hohmann, A., Schlaug, G. (2010). Inducing Disorders in Pitch Perception and Production: a Reverse-Engineering Approach. *Proceedings of Meetings on Acoustics*, 9, 1-8.
- Rohrmeier, M., Honing, H., Rebuschat, P., **Loui, P.**, Wiggins, G., Pearce, M. T., et al. (2009). Music Cognition: Learning and Processing. In N. A. Taatgen & H. v. Rijn (Eds.), *Proceedings of the 31st Annual Conference of the Cognitive Science Society* (pp. 41-42). Austin, TX: Cognitive Science Society.
- **Loui, P.,** Wessel, D. L. (2006). Acquiring New Musical Grammars: a Statistical Learning Approach. In M. Baroni, A.R. Addessi, R. Caterina, M. Costa (Eds.), *Proceedings of the 9th International Conference on Music Perception and Cognition* (pp. 1009-1017). Bologna, Italy: ICMPC-ESCOM.
- **Loui, P.,** Wessel, D., Hudson Kam, C. L. (2006). Acquiring New Musical Grammars a Statistical Learning Approach. In *Proceedings of the 28th Annual Conference of the Cognitive Science Society* (pp. 1711-1716). Mahway, NJ: Cognitive Science Society.
- Wessel, D., **Loui, P.,** Jacobs, B., Avizienis, R. (2004). Music Perception and Cognition Experiments in a Classroom Setting: Temporally Precise Hardware and Software. *Proceedings of the 8<sup>th</sup> International Conference on Music Perception and Cognition* (p. 642). Evanston, IL: ICMPC.

### Book chapters

- **Loui, P.**, & \*Guetta, R. Music and Attention, Executive Function, and Creativity. To appear in M. Thaut, D. Hodges (Eds.), *The Oxford Handbook of Music and the Brain*. Oxford University Press.
- **Loui, P.,** \*O'Brien, S., \*Sontag, S. Neural Connectivity of the Creative Mind. To appear in S. J. Lopez, L. M. Edwards, S. C. Marques (Eds.), *Oxford Handbook of Positive Psychology*, 3<sup>rd</sup> Edition: Oxford University Press.
- Timmers, R., & Loui, P. (2018). Music and Emotion. In D. Levitin, J. Rentfrow (Eds.), *Foundations of Music Psychology* (pp. 783-826): MIT Press.
- **Loui, P.,** \*Przysinda, E. (2017). Music and the brain: Areas and networks. In R. Ashley, R. Timmers (Eds.), *Routledge Companion to Music Cognition* (pp. 13-24): Routledge.
- **Loui, P.** (2016). The Role of Brain Connectivity in Musical Experience. In J. D. Greene, I. Morrison, and M. E. P. Seligman (Eds.), *Positive Neuroscience* (pp. 191-207): Oxford University Press.
- **Loui, P.** (2016). Disorders of Music Cognition. In S. Hallam, I. Cross & M. Thaut (Eds.), *The Oxford Handbook of Music Psychology, 2<sup>nd</sup> Edition* (pp. 307-323): Oxford University Press.

- **Loui, P.** (2016). Absolute Pitch. In I. Cross & M. Thaut (Eds.), *Oxford Handbook of Music Psychology*, 2<sup>nd</sup> Edition (p. 81-94): Oxford University Press.
- Loui, P. (2012). Hearing and Psychoacoustics. Oxford Bibliographies Online: Music.
- **Loui, P.** (2012). Statistical Learning What Can Music Tell Us? In P. Rebuschat and J. Williams (Ed), *Statistical Learning and Language Acquisition* (pp. 433-462): Mouton de Gruyter.
- Hafter, E. R., Sarampalis, A., Loui, P. (2007). Auditory Attention and Filters. In W. Yost (Ed), *Auditory Perception of Sound Sources* (pp. 115-142): Springer Verlag.

### **Select Conference Presentations**

- (Note: \* denotes Wesleyan trainees)
- \*Belden, A., \*Zeng, T., \*Przysinda, E., **Loui, P.** (2018). Hearing Creatively: Default Network Selectively Synchronizes to Auditory Cortex in Jazz Musicians. Poster presentation at the Sixth Biennial Conference on Brain Connectivity, Montreal, Canada, September 2018.
- \*Belden, A., \*Zeng, T., \*Przysinda, E., **Loui, P.** (2018). Hearing Creatively: Default Network Selectively Synchronizes to Auditory Cortex in Jazz Improvising Musicians. Oral and poster presentation at the Cognitive Neuroscience Society, Boston, MA, March 2018. **Data Blitz award winner**
- **Loui, P.**, \*Sampaio, G., \*Yost, K., \*James, T., \*Przysinda, E., Hewett, A., Morillon, B., Woods, K. (2018). Acoustic Effects on Oscillatory Markers of Sustained Attention. Poster presentation at the Cognitive Neuroscience Society, Boston, MA, March 2018.
- \*Patterson, S., \*Zhou, Y., **Loui, P.** (2018). Structural and Functional Correlates of Musical Anhedonia. Poster presentation at the Cognitive Neuroscience Society, Boston, MA, March 2018.
- \*Lee, J.D., \*Jung, H., \*Mathew, C.J., **Loui, P.** (2018). Time-Frequency Effects of Syntactic Violation in Music, Language, and Rhythm. Poster presentation at the Cognitive Neuroscience Society, Boston, MA, March 2018.
- \*James, T., \*Bouvagnet, M., Loui, P. (2018). The Perception and Cognition of Racialized Voices. Poster presentation at the Cognitive Neuroscience Society, Boston, MA, March 2018.
- **Loui, P.,** \*Przysinda, E., \*Sampaio, G., \*James, T., Hewett, A., Morillon, B. (2017). Musical Effects on Oscillatory Markers of Sustained Attention. Poster presentation at the International Conference on the Auditory Cortex, Banff, AB, Canada, September 2017.
- **Loui, P.** (2017). Longitudinal and Cross Sectional Study of Jazz Improvisation as a Model of Creativity. Oral presentation at the Society for Music Perception and Cognition, San Diego, CA, August 2017.
- \*Przysinda, E., \*Sampaio, G., \*James, T., Woods, K., Hewett, A., Morillon, B., Loui, P. (2017). Acoustic Effects on Oscillatory Markers of Sustained Attention. Oral presentation at the Neural Entrainment and Rhythm Dynamics meeting, Boston, MA, June 2017.
- \*Przysinda, E., Hewett, A., Morillon, B., Cordovez, B., **Loui, P.** (2017). Attentional Enhancements of Algorithmically Generated Music. Poster presentation at the Neurosciences of Music, Boston, MA, June 2017.

- **Loui, P.** (2017). Jazz Improvisation as a Model of Creativity: A Cross-Sectional and Longitudinal Study. Oral presentation at the Neurosciences of Music, Boston, MA, June 2017.
- **Loui, P.** (2017). David Wessel: A Few Stories of an Antidisciplinarian. Oral presentation at the Acoustical Society of America, Boston, MA, June 2017.
- \*Przysinda, E., Sachs, M., \*Leung, Y., Zeng, T., Loui, P. (2017). Dissociated Perceived and Felt Emotion in Musical Anhedonia. Poster presentation at the Cognitive Neuroscience Society, San Francisco, CA, March 2017.
- \*Arkin, C., \*Pfeifer, C., \*Przysinda, E., **Loui, P.** (2017). Structural Brain Differences in Jazz Improvising Musicians. Poster presentation at the Cognitive Neuroscience Society, San Francisco, CA, March 2017.
- \*Zeng, T., \*Przysinda, E., **Loui, P.** (2017). Increased Structural and Functional Connectivity in Jazz Improvising Musicians. Poster presentation at the Cognitive Neuroscience Society, San Francisco, CA, March 2017.
- **Loui, P.** (2017). Jazz Improvisation as a Model of Creativity: Converging Evidence from Behavioral Performance and Diffusion Tensor Imaging. Oral presentation at the Society for Neuroscience of Creativity, San Francisco, CA, March 2017.
- **Loui, P.** (2016). Cognitive and Neural Foundations of Musical Minds. Symposium presentation at the American Congress for Rehabilitation Medicine, Chicago, IL, November, 2016.
- **Loui, P.,** & \*Przysinda, E. (2016). Jazz Improvisation as a Model of the Creative Process: Heightened Perceptual Awareness and Sensitivity. Oral presentation at the International Conference for Music Perception and Cognition, San Francisco, CA, July 2016.
- \*Przysinda, E., & Loui, P. (2016). A Psychophysical Measure of Auditory Imagination in Jazz Musicians. Poster presentation at the International Conference for Music Perception and Cognition, San Francisco, CA, July 2016.
- \*Lin, W., \*Maves, K., \*Iyer, J., & Loui, P. (2016). Size matters: An ERP study of interval size judgments in audiovisual integration. Poster presentation at the Cognitive Neuroscience Society, New York, NY, April 2016.
- \*Jung, H., \*Arkin, C., & Loui, P. (2016). Electrophysiological correlates of rhythm and syntax in music and language. Poster presentation at the Cognitive Neuroscience Society, New York, NY, April 2016.
- \*Przysinda, E., & Loui, P. (2016). A Psychophysical Measure of Auditory Imagination in Jazz Musicians. Poster presentation at the Cognitive Neuroscience Society, New York, NY, April 2016.
- **Loui, P.** (2016). Real-time EEG Sonification and Its Applications in Epilepsy. Oral presentation at the Northeast Music Cognition Group Meeting, Harvard University, Cambridge, MA, January 2016.
- \*Lin, W., \*Maves, K., \*Iyer, J., & Loui, P. (2016). Size matters: An ERP study of interval size judgments in audiovisual integration. Oral presentation at the Northeast Music Cognition Group Meeting, Harvard University, Cambridge, MA, January 2016.
- \*Jung, H., \*Arkin, C., & Loui, P. (2016). Electrophysiological correlates of rhythm and syntax in music and language. Poster presentation at the Northeast Music Cognition Group Meeting, Harvard University, Cambridge, MA, January 2016.

- \*Przysinda, E., & Loui, P. (2016). A Psychophysical Measure of Auditory Imagination in Jazz Musicians. Oral presentation at the Northeast Music Cognition Group Meeting, Harvard University, Cambridge, MA, January 2016.
- Hansen, N. C., **Loui, P.,** Vuust, P., & Pearce, M. (2015). Modelling short- and long-term statistical learning of music as a process of predictive entropy reduction. Oral presentation at Interdisciplinary Advances in Statistical Learning, San Sebastian, Spain, June 2015.
- \*Li, H.C., **Loui, P.,** \*Halwani, G.F., Guenther, F.H., Schlaug, G. (2015) Cortical Control of Vocal Pitch Feedback. Poster presentation at Organization of Human Brain Mapping, Honolulu, Hawaii, June 2015.
- \*Li, H.C., Fujii, S., **Loui, P.,** & Schlaug, G., (2015) A voxel-based morphometry study of rhythm perception and production. Poster presentation at Organization of Human Brain Mapping, Honolulu, Hawaii, June 2015.
- **Loui, P.**, \*Lindau, B., \*Pani, E., Schlaug, G. (2015). Neural and cognitive markers of pitch perception and pitch awareness. Poster presentation at Organization of Human Brain Mapping, Honolulu, Hawaii, June 2015.
- \*Jung, H., \*Sontag, S., \*Park, Y., & Loui, P. (2015). Rhythmic Effects of Syntax Processing in Music and Language. Oral presentation at the Northeast Music Cognition Group Meeting, Wesleyan University, April 2015.
- \*Guetta, R. & Loui, P. (2015). The Crossmodal Associations between Sound and Taste. Oral presentation at the Northeast Music Cognition Group Meeting, Wesleyan University, April 2015.
- \*Lee, M.C., \*Kelly, T.D., \*Daniels, C.E., & Loui, P. (2015). Investigating Voice Feedback Control and Its Possible Relationship with Empathy. Oral presentation at the Northeast Music Cognition Group Meeting, Wesleyan University, April 2015.
- \*Lolli, S., \*Lewenstein, A., \*Basurto, J., \*Winnik, S., & Loui, P. (2015). Sound Frequency Affects Speech Emotion Perception: Results from Congenital Amusia. Oral presentation at the Northeast Music Cognition Group Meeting, Wesleyan University, April 2015.
- \*Jung, H., \*Sontag, S., \*Park, Y., & Loui, P. (2015). Rhythmic Effects of Syntax Processing in Music and Language. Poster presented at the Cognitive Neuroscience Society, San Francisco, March 2015.
- \*Koplin-Green, M., \*Massone, M. J. L., \*Plave, A., & Loui, P. (2015). Rapidly Learned Identification of Seizures from Sonified EEG. Poster presented at the Cognitive Neuroscience Society, San Francisco, March 2015.
- \*Lolli, S., \*Lewenstein, A., \*Winnik, S., \*Basurto, J., & Loui, P. (2015). Sound Frequency Affects Speech Emotion Perception: Results from Congenital Amusia. Poster presented at the Cognitive Neuroscience Society, San Francisco, March 2015.
- \*Iyer, J., **Loui, P.** (2015). Statistical Learning of Tone Sequences in Dyslexia. Poster presented at the Cognitive Neuroscience Society, San Francisco, March 2015.
- \*Abel, M. K. A., Li, H. C., Schlaug, G., & Loui, P. (2015). Graph Theory and Behavioral Studies on Auditory Integration. Poster presented at the Cognitive Neuroscience Society, San Francisco, March 2015.

- \*Li, H.C., **Loui, P.,** Halwani, G.F., Guenther, F.H., Schlaug, G. (2015) Cortical Control of Vocal Pitch Feedback. Poster presented at the Cognitive Neuroscience Society, San Francisco, March 2015.
- \*Li, H.C., Fujii, S., **Loui, P.,** & Schlaug, G., (2015) A voxel-based morphometry study of rhythm perception and production. Poster presented at the Cognitive Neuroscience Society, San Francisco, March 2015.
- **Loui, P.** (2015). Action and Perception in the Musical Brain. Oral presentation at Workshop on Music, Language and Emotion, SUNY Stony Brook, March 2015.
- Hansen, N. C., **Loui, P.,** Vuust, P., & Pearce, M. (2014). Spiking the Expectancy Profiles: Modelling short- and long-term statistical learning of music as a process of predictive entropy reduction. Poster presentation at BKN 25: Milestones in Music Cognition Conference, Montreal, Canada, July 2014.
- **Loui, P.** (2014). EEG Sonification for the Detection of Seizures. Oral presentation at Berkeley Psychology PhD Reunion Conference, Berkeley, CA, June 2014.
- **Loui, P.** (2014). Neural regulation of pitch perception and production. Paper presented at The Neurosciences and Music V: Cognitive Stimulation and Rehabilitation, Dijon, France, May 2014.
- Hansen, N. C., **Loui, P.,** Vuust, P., & Pearce, M. (2014). Modelling short- and long-term statistical learning of music as a process of predictive entropy reduction. Poster presentation at The Neurosciences and Music V: Cognitive Stimulation and Rehabilitation, Dijon, France, May 2014.
- **Loui, P.,** \*Frick, M., \*Koplin-Green, M., \*Massone, M. (2014). EEG Sonification for the Detection of Seizures. Oral presentation at the Yale Epilepsy Research Retreat, Madison, CT, April 2014.
- **Loui, P.,** \*Pani, E., \*Lindau, B., & Schlaug, G. (2014). White matter correlates of pitch perception and production. Poster presented at the Cognitive Neuroscience Society, Boston, MA, April 2014.
- Schlaug, G., \*Lindau, B., \*Pani, E., & Loui, P. (2014). Gray matter correlates of pitch perception and production. Poster presented at the Cognitive Neuroscience Society, Boston, MA, April 2014.
- \*Abel, M. K., \*Li, H. C., Schlaug, G., & Loui, P. (2014). Resting State Functional Networks in Tone-Deafness. Poster presented at the Cognitive Neuroscience Society, Boston, MA, April 2014.
- \*Li, H. C., Loui, P., \*Halwani, G. F., Guenther, F. H., & Schlaug, G. (2014). Cortical control of vocal pitch feedback. Poster presented at the Cognitive Neuroscience Society, Boston, MA, April 2014.
- **Loui, P.** (2014). Action and Perception in the Musical Brain. Oral presentation at Schmitt Symposium for Integrative Brain Research, University of Rochester Medical Center, Rochester, NY, March 2014.
- \*Pani, E., Schlaug, G., & Loui, P. (2014). Predicting Musical Ability from Structural Connectivity of Auditory-Motor Pathways. Poster presented at Schmitt Symposium for Integrative Brain Research, University of Rochester Medical Center, Rochester, NY, March 2014.

- **Loui, P.** (2013). Attention and the Refinement of Auditory Expectations. Oral presentation at the 166th Meeting of the Acoustical Society of America, San Francisco, California, December 2013.
- **Loui, P.** (2013). Towards and Endophenotype of Impaired Pitch Perception and Production. Oral presentation at the Seattle Singing Symposium, University of Washington, October 2013.
- **Loui, P.** (2013). Behavioral and DTI Studies on Normal and Impaired Learning of Musical Structure. Oral presentation at the Cognitive Sciences Society, Berlin, Germany, July 2013.
- **Loui, P.,** \*Zamm, A., & Schlaug, G. (2013). Oboes are Red, Violins are Blue: Network Connectivity of White Matter in Colored-Music Synesthesia. Poster presented at the Organization for Human Bran Mapping, Seattle, WA, June 2013.
- **Loui, P.,** \*Halwani, G., \*Iyer, J., \*Abel, M.K., Schlaug, G. (2013). Task and Resting Functional Networks in Tone-Deafness: An Auditory-Motor Disconnection Syndrome. Poster presented at the Organization for Human Brain Mapping, Seattle, WA, June 2013.
- **Loui, P.** (2013). An Empirical Space of Music for Biofeedback. Oral presentation at the Northeast Music Cognition Conference, New York, NY, April 2013.
- \*Sachs, M. E., Ellis, R. J., Schlaug, G., & Loui, P. (2013). White Matter Connectivity Reflects Individual Differences in the Chill Response to Music. Poster presentation at the Cognitive Neuroscience Society, San Francisco, April 2013.
- \*Zamm, A., Schlaug, G., Eagleman, D. E., & Loui, P. (2013). Enhanced White Matter Connectivity in Colored-Music Synesthesia. Poster presentation at the Cognitive Neuroscience Society, San Francisco, April 2013.
- \*Iyer, J., **Loui, P.,** \*Abel, M. K., \*Halwani, G., & Schlaug, G. (2013). Perturbed auditory feedback and resting state functional networks in tone-deafness. Poster presentation at the Cognitive Neuroscience Society, San Francisco, April 2013.
- **Loui, P.** (2013). Absolute Pitch: Increased Structural and Functional Connectivity. Oral presentation at the New England Sequencing and Timing Conference, Amherst, MA, March 2013.
- **Loui, P.** & Schlaug, G. (2012). Neural Development of Pitch Perception and Production. Poster presentation at the Society for Neuroscience, New Orleans, LA, October 2012.
- **Loui, P.,** \*Zamm, A., & Schlaug, G. (2012). Absolute Pitch and Synesthesia: Two Sides of the Same Coin? Shared and Distinct Neural Substrates of Music Listening. Oral presentation at the International Conference for Music Perception and Cognition, Thessaloniki, Greece, July 2012.
- **Loui, P.** (2012). Perception and Action of Musical Pitch: Behavioral, DTI, and fcMRI Studies in Children and Tone-Deaf Adults. Oral presentation at the Cognitive Neuroscience Society, Chicago, April 2012.
- **Loui, P.** (2012). Perception Versus Production of Musical Pitch. Oral presentation at the Auditory Splash meeting, University of Maryland, College Park, MD, January 2012.
- **Loui, P.,** Schlaug, G. (2011). Increased functional connectivity in the Absolute Pitch brain. Poster presentation at the Society for Neuroscience, Washington DC, November 2011.

- **Loui, P.,** \*Zamm, P., Schlaug, G. (2011). Emotional Judgment in Absolute Pitch: Comparing Behavioral Output with Structural and Functional MRI. Oral presentation at the Society for Music Perception and Cognition, Rochester, NY, August 2011.
- **Loui, P.** (2011). Behavioral and Neural Correlates of Normal and Disordered Music Learning Ability. Oral presentation at the Neurosciences and Music, Edinburgh, Scotland, June 2011.
- **Loui, P.**, \*Li, C., & Schlaug, G. (2011). Artificial Grammar Learning in Music: The Role of White Matter in the Right Hemisphere. Oral and poster presentations at the Human Brain Mapping Annual Meeting, Quebec City, Canada, June 2011.
- **Loui, P.,** \*Li, C., & Schlaug, G. (2011). Artificial Grammar Learning in Music is Subserved by White Matter in Right Hemisphere: a Behavior and DTI Study. Oral presentation at the Cognitive Neuroscience Society, San Francisco, CA, April 2011.
- **Loui, P.** (2010). Sensing and Seeing the Musical Brain: a Tutorial. Oral presentation at the New England Music Cognition Group Meeting, Boston, MA, October 2010.
- **Loui, P.** (2010). Singing: Neurological Bases and Implications for Stroke Recovery. Keynote presentation at the Vocal Mosaic of AIRS, University of Prince Edward Island, Canada, August 2010.
- Loui, P. (2010). The Role of Hyperconnectivity in Creative Perception and Cognition. Oral presentation at the Templeton Positive Neuroscience Symposium, University of Pennsylvania, Philadelphia, PA, June 2010. \*Templeton Positive Neuroscience award winner\*
- **Loui, P.** (2010). Imaging and Inducing Disorders in Musical Perception and Production. Special session on Psychological and Physiological Acoustics: Music Processing: Neural Mechanisms and Hearing Impairment. Acoustical Society of America, Baltimore, MD, April 2010.
- **Loui, P.** & Schlaug, G. (2010). Functional Activation of Perception and Action Areas Predict Emotional Responses to Music. Poster presentation at the Cognitive Neuroscience Society Meeting, Montreal, Canada, April 2010.
- **Loui, P.** (2010). From Sounds to Music: Learning the Bohlen-Pierce Scale. Oral Presentation at International Bohlen-Pierce Symposium, Boston, MA, March 2010.
- **Loui, P.** (2010). A Spectral View of Sound Acquisition: Learning Harmony from Tone Sequences. Oral presentation at the New England Sequencing and Timing Conference, New Haven, CT, March 2010.
- **Loui, P.** & Schlaug, G. (2009). Messages from the Dark Side of Pitch Perception and Production. Oral presentation at the Auditory Perception, Cognition, and Action Meeting, Boston, MA, November 2009.
- \*Li, H., **Loui, P.**, & Schlaug, G. (2009). Perceiving Emotional Arousal in Music Recruits Production Areas. Poster presentation at the Auditory Perception, Cognition, and Action Meeting, Boston, MA, November 2009.
- **Loui, P.** (2009). Neural Correlates of New Music Learning. Symposium presentation at the Cognitive Science Society, Amsterdam, July 2009.
- **Loui, P.,** Schlaug, G. (2009). Relating Diffusion Tractography to Impaired Pitch Perception and Production. Poster presentation at the Organization for Human Brain Mapping, San Francisco, June 2009.

- **Loui, P.,** \*Li, C., \*Hohmann, A., Schlaug, G. (2009). Absolute Pitch a Group Study in Cortical Hyperconnectivity. Poster presentation at the Organization for Human Brain Mapping, San Francisco, June 2009.
- **Loui, P.,** Schlaug, G. (2009). Neural Correlates of Absolute Pitch Perception and Categorization. Oral presentation at the Cognitive Neuroscience Society, San Francisco, March 2009.
- \*Hohmann, A., Loui, P., Schlaug, G. (2009). Modeling Neurological Disorders of Musical Ability with Vocal Feedback. Poster presentation at the Neurosciences and the Arts Symposium, Boston, January 2009.
- \*Li, C., **Loui, P.,** Schlaug, G. (2009). Music and Goosebumps: the How and the Why. Poster presentation at the Neurosciences and the Arts Symposium, Boston, January 2009.
- **Loui, P.,** Schlaug, G. (2008). To Hear but not to Listen: Psychophysical and Neural Correlates of Tone Deafness. Oral presentation at Music and Language II, Tufts University, July 2008.
- **Loui, P.,** Wessel, D. L. (2008). Effects of Timbre on Musical Structure. Poster presentation at Music and Language II, Tufts University, July 2008.
- **Loui, P.,** Schlaug, G. (2008). To Hear, Perchance to Sing: Behavioral and Brain-Connectivity Studies of Tone-Deafness. Poster presentation at Neurosciences and Music III, Montreal, June 2008.
- **Loui, P.,** Schlaug, G. (2008). Production without Perception in Tone-Deafness: a Combined Psychophysical and DTI Study. Poster presentation at the Cognitive Neuroscience Society, San Francisco, April 2008.
- **Loui, P.** (2007). From Sounds to Music: Learning Probabilities and Frequencies. Oral presentation at the Thirteenth Cognitive Science Association for Interdisciplinary Learning, Hood River, Oregon, August 2007.
- **Loui, P.,** Wessel, D. L. (2007). Musical Experience with Passive, Active, and Enactive Listening. Oral presentation at the Society for Music Perception and Cognition, Montreal, Canada, July 2007.
- **Loui, P.,** Wessel, D. L., Wu, E. H., Knight, R. T. (2007). Perceiving New Music Recruits Flexible Neural Mechanisms. Poster presentation at the Cognitive Neuroscience Society, New York, May 2007.
- **Loui, P.,** Wessel, D. L., Wu, E. H., Knight, R. T. (2007). Expecting New Music Recruits Flexible Neural Mechanisms. Poster presentation at the Conference for Language and Music as Cognitive Systems, Cambridge, UK, May 2007.
- **Loui, P.,** Wessel, D. L. (2006). Acquiring New Musical Grammars a Statistical Learning Approach. Oral presentation at the Ninth International Conference for Music Perception and Cognition, Bologna, Italy, August 2006. \***ESCOM award winner**\*
- **Loui, P.,** Wessel, D. L., Hudson Kam, C. L. (2006). Acquiring New Musical Grammars a Statistical Learning Approach. Poster Presentation at the 28th Annual Conference of the Cognitive Science Society, Vancouver, Canada, July 2006.
- **Loui, P.,** Wessel, D. L. (2006). Attentional Fluctuations Across Frequency and Amplitude: a Dual-Task Study. Poster presentation at the Cognitive Neuroscience Society Annual Meeting, San Francisco, April 2006.

**Loui, P.,** Wessel, D. L. (2005). Harmonic Expectation, Selective Attention, and Affect in Music. Poster presentation at The Neurosciences and Music conference, Leipzig, Germany, May 2005.

Wessel, D. L., **Loui, P.,** Jacobs, B., Avedonakis, R. (2004). Music Perception and Cognition Experiments in a Classroom Setting: Temporally Precise Hardware and Software. Paper presentation at the 8<sup>th</sup> International Conference on Music Perception and Cognition, Evanston, Illinois, August 2004.

**Loui, P.,** Grent-'t-Jong, T., Torpey, D., Woldorff, M. G. (2004). The Effect of Attention on the Processing of Musical Harmonic Syntax as Revealed by Event-Related Brain Potentials. Poster presentation at Cognitive Neuroscience Society Annual Meeting, San Francisco, April 2004.

#### Invited Talks & Presentations

Honors College Signature Seminar, University of Arkansas, Fayetteville, AK (April, 2018)

Faculty of Environment and Information Studies, Keio University SFC, Japan (December, 2018)

Sylvius Lecture, Leiden Institute for Brain and Cognition, Leiden University, Netherlands (November, 2018)

Public Symposium on Music Cognition and the Brain, Leiden, Netherlands (November, 2018)

UCLA Conference on Art, Neuroscience, and Psychiatry, Los Angeles, CA (November, 2018)

Neuroaesthetics Seminar, Harvard University, Cambridge MA (October, 2018)

Seminar on Music, Education, and Health, Harvard University, Cambridge MA (September, 2018)

Psychology Colloquium, Connecticut College, New London, CT (September, 2018)

Aspen Ideas Festival, Aspen, CO (June, 2018)

Workshop on "Musics, selves and societies: the roles of music in effecting change", University of Cambridge, UK (June, 2018)

Taste of Science Boston, MA (April, 2018)

Conversation Between Ear and Tongue, Dinosaur Annex Contemporary Music Ensemble, Somerville, MA (April, 2018)

Oxford Science Café, University of Mississippi, Oxford, MS (April, 2018)

Brain Awareness Week, University of Mississippi, Oxford, MS (April, 2018)

Active Listening – Experiencing and Visualizing Sound, Northeastern University, Boston, MA (March, 2018)

Psychology Colloquium, Connecticut College, New London, CT (February, 2018)

Department of Music, Northeastern University, Boston, MA (January, 2018)

Institut de Recherche et Coordination en Acoustique/Musique (IRCAM), Paris, France (December, 2017)

Workshop on the Origins of Music in Human Society, Abbaye Royaumont, France (December, 2017)

Boston University Hearing Research Seminar, Boston, MA (November, 2017)

Guest lecture, Psychology of Music, Tufts University, Medford, MA (October, 2017)

Public lecture, American Synesthesia Association, Medford, MA (October, 2017)

Boston Early Music Festival, Boston, MA (June, 2017)

3rd Joint Meeting of the Acoustical Society of America and the European Acoustics Association, Boston, MA (June, 2017)

Connecticut Psychiatry Residents' Day Retreat (May, 2017)

Science by the Pint, Somerville, MA (March, 2017)

Hampshire College, Amherst, MA (February, 2017)

University of Massachusetts Amherst, Amherst, MA (February, 2017)

NIH/Kennedy Center Music and Health Initiative Winter Workshop, Bethesda, MD (January, 2017)

American Psychoanalytic Association 2017 National Meeting, New York, NY (January, 2017)

Creative Struggle Music Festival, Philadelphia, PA (December, 2016)

Rutgers University Women in Neuroscience, Princeton, NJ (November, 2016)

Department of Music Education, Northwestern University, Evanston IL (November, 2016)

American Congress of Rehabilitation Medicine, Chicago, IL (November, 2016)

Music, Language and the Brain Seminar, Tufts University, Medford MA (October, 2016)

92E Arts Festival, Seattle, WA (October, 2016)

Writing Seminar, Wellesley College, Wellesley, MA (October, 2016)

Hearing Sciences Colloquium, University of California at Berkeley (May, 2016)

Cambridge Science Festival, Broad Institute, Cambridge, MA (April, 2016)

DARPA Rhythms and the Brain, New York, NY (April, 2016)

Media Lab, MIT (February, 2016)

Neuroscience and the Arts Panel, Trinity College, Hartford, CT (December, 2015)

Seminar on Music, Mind, and Brain, Harvard College, Cambridge, MA (October, 2015)

Music Seminar, Wellesley College, Wellesley, MA (October, 2015)

Keynote Lecture, Music Learning Across the Lifespan Symposium, University of Western Ontario, London, Ontario (October, 2015)

Music Cognition Symposium, University of Rochester (September, 2015)

IMPRS Summer School, Leipzig, Germany (July, 2015)

2015 Michael Tsan Ty Memorial Lecture, Brigham and Women's Hospital and Massachusetts General Hospital Departments of Neurology (Neurology Grand Rounds, Harvard Medical School, May, 2015)

Music Perception and Cognition course, University of Connecticut (March, 2015)

Workshop on Music, Language and Emotion, SUNY Stony Brook (March, 2015)

Music and the Brain Seminar, Duke University, Durham, NC (February, 2015)

Neuroscience Seminar, University of Western Ontario, London, Ontario (December, 2014)

McMaster Institute of Music and the Mind, McMaster University, Hamilton, Ontario (December, 2014)

NEURON Seminar, Northeastern University, Boston, MA (November, 2014)

Wasch Center for Retired Faculty, Wesleyan University, Middletown, CT (November, 2014)

Harvard Odontological Society, Harvard Club of Boston (October, 2014)

Biophysics Retreat, Wesleyan University (September, 2014)

BrainMap Seminar, Department of Radiology, Massachusetts General Hospital and Harvard Medical School, Charlestown, MA (September, 2014)

Depression and Bipolar Support Alliance, McLean Hospital, Belmont, MA (August, 2014)

Gabrieli Lab, Department of Brain and Cognitive Sciences, MIT (July, 2014)

Neuromorphic Workshop, Telluride, Colorado (July, 2014)

Perception and Action Seminar, Brown University (March, 2014)

Seminar on Music, Mind, and Brain, Harvard University (March, 2014)

Schmitt Symposium for Integrative Brain Research, University of Rochester (March, 2014)

Natural Sciences and Mathematics Luncheon Series, Wesleyan University (February, 2014)

Music Perception and Cognition course, University of California at Berkeley (December, 2013)

Department of Music, Wesleyan University (November, 2013)

Psychology of Music course, University of Washington (October, 2013)

Laboratory for Music Cognition, Culture & Learning, University of Washington (Visiting Scholar, October, 2013)

Hearing Sciences Colloquium, University of California at Berkeley (April, 2013)

Seminar on The Musical Brain, UCSD (April, 2013)

Music Therapy Symposium, Berklee College of Music (April, 2013)

Phillips Academy, Andover, MA (March, 2013)

Seminar on Music, Mind, and Brain, Harvard University (March, 2013)

Department of Music, MIT (March, 2013)

Department of Psychology, Wesleyan University (February, 2013)

Neuroscience and Cognitive Science Colloquium, University of Maryland (October, 2012)

Music and Audio Research Laboratory Seminar, New York University (March, 2012)

Sloan School of Management, MIT (March, 2012)

Media Lab, MIT (March, 2012)

Seminar on Music, Mind, and Brain, Harvard University (March, 2012)

TEDxCambridge, Harvard University (November, 2011)

Mind, Brain, and Behavior Chalk Talk, Harvard University (November, 2011)

Hearing Research Center Seminar, Boston University (September, 2011)

Templeton Positive Neuroscience Retreat, University of Pennsylvania, Philadelphia, PA (August, 2011)

Michael Driscoll School, Brookline, MA (May, 2011)

Massachusetts General Hospital, Harvard Medical School (April, 2011)

Massachusetts Medical Society meeting, Harvard Art Museum, Cambridge, MA (April, 2011)

Center for Computer Research in Music and Acoustics, Stanford University (February, 2011)

Hearing Sciences Colloquium, University of California at Berkeley (November, 2010)

Seminar on Language and Music, Harvard University (November, 2010)

Cognitive Neurorehabilitation Group Meeting, Harvard University (October, 2010)

INSERM-CEA Cognitive Neuroimaging Unit, Paris, France (September, 2010)

Leipziger Gespraechskreis Neuromusik, Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany (September, 2010)

Keynote presentation, The Vocal Mosaic of AIRS, University of Prince Edward Island, Canada (August 2010)

Special Session on Music Processing, Neural Mechanisms and Hearing Impairment, 158<sup>th</sup> Meeting of the Acoustical Society of America, Baltimore, MD (April, 2010)

Psychiatry Neuroimaging Laboratory, Brigham and Women's Hospital, Harvard Medical School (March, 2010)

Department of Music, Wellesley College, Wellesley, MA (March, 2010)

Department of Psychology, University of Iowa, Iowa City, IA (December, 2009)

Music Therapy and Music Perception and Cognition Club, Berklee College of Music, Boston, MA (December, 2009)

Department of Psychology, University of Illinois at Chicago, Chicago, IL (November, 2009)

Center for Music and Science Seminar, Faculty of Music, University of Cambridge, UK (July 2009)

Advancing Interdisciplinary Research in Singing Start-up Meeting, University of Prince Edward Island, Canada (June 2009)

Laboratories for Cognitive Neuroscience, Children's Hospital Boston, Harvard Medical School (June 2009)

Harvard-MIT Health Sciences and Technology graduate course on Music Perception and Cognition (March 2009)

Cognition, Brain, and Behavior Colloquium, Department of Psychology, University of California at Berkeley (March 2009)

Epiphany Middle School, Dorchester, MA (January 2009)

Crossing the Corpus Callosum: Longwood Symphony's Symposium for Neurosciences and the Arts, Boston, MA (January 2009)

Symposium for Music and the Brain, Stanford University (May 2008)

Ezekiel Hersey Council Dinner, Harvard Medical School (May 2008)

Center for New Music and Audio Technology, University of California at Berkeley (April 2008)

Department of Brain and Cognitive Sciences, MIT, Cambridge, MA (March 2008)

Department of Psychology, Neuroscience, and Behaviour, McMaster University, Canada (November 2007)

Hearing Research Center, Boston University (October 2007)

Cognition, Brain, and Behavior Colloquium, Department of Psychology, University of California at Berkeley (March 2007)

School Board, College of San Mateo (January 2007)

Center for Research in Language, University of California at San Diego (November 2006)

Beth Israel Deaconess Medical Center, Harvard Medical School (November 2006)

Center for Mind and Brain, University of California at Davis (June 2006)

Hearing Sciences Colloquium, University of California at Berkeley (April 2006)

Berkeley Stanford Talks, University of California at Berkeley (April 2006)

Visitors' Day, Department of Psychology, University of California at Berkeley (February, 2006)

## **Professional Memberships**

Member of Association for Psychological Science, Cognitive Neuroscience Society, Cognitive Science Society, Human Brain Mapping, National Society for Collegiate Scholars, New York Academy of Sciences, Psi Chi Honors Fraternity in Psychology, Society for Music Perception and Cognition, Society for Neuroscience

Society for Music Perception and Cognition

At-Large Board Member (2015-2017)

Media Communications Director (2018-)

Executive committee member, Northeast Music Cognition Group (NEMCOG)

## Conference Organization

Northeast Music Cognition Group, Harvard University, February 2018. Co-organizer with Lisa Wong.

Society for Music Perception and Cognition, San Diego, July 2017. Member-at-Large, Board of Directors.

Neurosciences and Music Conference, Boston, MA, June 2017. Member, Local Organizing Committee.

International Conference for Music Perception and Cognition, San Francisco, CA, July 2016. Scientific Advisory Board member.

Northeast Music Cognition Group, Wesleyan University, April 2015.

Northeast Music Cognition Group, Boston University, November 2012. Co-organizer with Jason Yust.

International Conference for Music Perception and Cognition, Thessaloniki, Greece, July 2012. Scientific Advisory Board member.

Music as a Medium for Perception and Action. A Symposium at the Cognitive Neuroscience Society, Chicago, April 2012. Organizer.

Learning and Memory in Musical Disorders. A Symposium at The Neurosciences and Music IV, Edinburgh, Scotland, June 2011. Co-organizer with Isabelle Peretz.

Crossing the Corpus Callosum II: Neuroscience, Healing, and Music. A Symposium hosted by the Longwood Symphony Orchestra. Harvard University, January 2011. Coorganizer with Michael Barnett and Andrea Spencer.

Crossing the Corpus Callosum I: Neuroscience, Healing, and the Arts. A Symposium hosted by the Longwood Symphony Orchestra. Harvard Medical School, January 2009. Co-organizer with Michael Barnett and Andrea Spencer.

# Peer Reviewing

Editorial Board

Editorial Board Member, PLoS ONE

Guest Editor, Music Perception

Reviewing Editor, Frontiers in Psychology

Ad-hoc Reviewing in Journals

Advances in Cognitive Psychology, Brain, Cerebral Cortex, Cognition, Cognitive Development, Cognitive Science, Consciousness and Cognition, European Journal of Neuroscience, Frontiers in Psychology, Human Brain Mapping, Journal of the Acoustical Society of America, Journal of Cognitive Neuroscience, Journal of Experimental Child Psychology, Journal of Experimental Psychology: Human Perception and Performance, Journal of Experimental Psychology: Learning, Memory, and Cognition, Journal of Neuroscience, Journal of Neurolinguistics, Journal of New Music Research, Music Perception, Musicae Scientiae, NeuroImage, Neuropsychologia, Neuroscience and Biobehavioral Reviews, Perception, Perceptual and Motor Skills, PLoS One, PNAS, Psychonomic Bulletin and Review, Psychological Science, Psychology of Music, Psychomusicology, Topics in Cognitive Science

Funding agencies

Grammy Foundation, National Science Foundation, Templeton Foundation

Publishing houses

De Gruyter Mouton, Wiley-Blackwell Publishers, Cambridge University Press, Rowan & Littlefield, Oxford University Press, Cambridge University Press

Peer-reviewed conferences

Human Brain Mapping, Cognitive Science Society, International Conference for Music Perception and Cognition, Society for Music Perception and Cognition

## University and Department Services

University Presentations and Guest Lectures

2013-14:

PSYC 105 Foundations of Contemporary Psychology (Schug): 1 lecture

2014-15:

Biophysics Retreat: 1 lecture

DACKI Manhattans and Martinis and Network Analysis: 1 presentation

QAC 239 Network Analysis Proseminar (Olenikov): 2 lectures

CIS 221 Research Frontiers in the Sciences I (Starr): 1 lecture

MUSC521-01 Seminar in Interdisciplinary Studies (Slobin): 1 lecture

Wasch Center for Retired Faculty (Scheibe): 1 lecture

MIND Lab Tour for Wesleyan University Trustees: 1 presentation

2015-16

QAC 241 Network Analysis (Olenikov): 1 lecture

CIS 221 Research Frontiers in the Sciences I (Starr, Thomas): 1 lecture

MUSC519 Current Issues in Ethnomusicology (Slobin): 1 lecture

CIS Research Soiree: 1 presentation

2016-17:

QAC 241 Network Analysis (Olenikov): QAC Network Analysis (1 lecture)

CIS (Starr): College of Integrative Science Senior Colloquium I: Integrative Sciences (1 lecture)

#### Department Service

Cognitive Visitor Search Committee, 2013-14

Advising Experts, 2014-15

Cognitive Search Committee, 2014-15

BA/MA Committee, 2015-16

Ploughback Committee, 2015-17

Colloquium Committee, 2016-17

Cognitive Visitor Search Committee, 2016-17

Northeastern University:

Music Technology Search Committee, 2018-19

University Service

Tenure Track Representative to Academic Council, 2016-17

## Mentorship

*Undergraduate Research Trainees and Interns (\* denotes thesis students)* 

Elaine Wu, 2004-06; Pearl Chen, 2005-06; Tiffany Day, 2005; Joann Chang, 2005; Judy Wang, 2005-07; Jorge Duque, 2006; Young Lee, 2006; Johannes Sommer, 2006; Shaochen Hailey Wu, 2007; Hui Charles Li, 2007-; Camilla Rosam, 2007-08; Katherine Akalovsky, 2007-08; Nadia Ouhib, 2008; John McLaren, 2009; Sang-Hee Min, 2010-2011; Sam Fang, 2010-2011; \*Matthew Sachs, 2011-2012; Jan Iyer, 2012-2014; \*Mary Kathryn Abel, 2012-2014; Lauren Seo, 2013-2014; Julian Basurto, 2014-2015; \*Harim Jung, 2014-2016; Caroline Jankowski, 2014-2015; Min Cheol Lee, 2014-2015; \*Matan Koplin-Green, 2014-2015; Sydney Lolli, 2014-2015; Ari Lewenstein, 2014-2015; Rachel Guetta, 2014-2017; Keith Spencer, 2015-2016; Wy Ming Lin, 2015-2016; Kellyn Maves, 2015-2016; Maxime Bouvagnet, 2015-2018; Cameron Arkin, 2015-2017; \*Tima Zeng, 2016-2017; \*Tedra James, 2016-2019; CJ Mathew, 2016-2018; Sarah Knight, 2016-2017; Charles Pfeifer, 2016; Monday Zhou, 2016-2017; Molly Byrne, 2017; Gonçalo Sampaio, 2017-2018; \*Han Tay, 2017-2019; Kinsey Yost, 2017-2018; Daniel Lee, 2017-2018; Adam Manson, 2018-; Ben Saldich, 2018; Melisa Olgun, 2018;

#### Graduate Research Trainees and Interns

Nora Raschle, 2008; Anja Hohmann, 2008-09; Kenneth Kroog, 2008-09; Gus F. Halwani, 2009-2012; Anna Zamm, 2011-2012; Jan Iyer, 2014-2015; Ethan Pani, 2013-; Berit Lindau, 2013-; Michael Massone, 2014-2015; Yvonne Leung, 2016; Emily Przysinda, 2015-2017; \*Sean Patterson, 2016-2018; Alexander Belden, 2017-;

Internal Thesis Reviews

Fasil Kirdar, 2014; Sydney Lolli, 2015

External Thesis Reviews

Kenneth Kroog, Boston College, 2009; David Wood, Brown University, 2013; David Taylor, University of New South Wales, 2015; Yanan Sun, Macquarie University, 2016; Roberta Bianco, Max Planck Institute for Human Cognitive and Brain Sciences, 2017; Yvonne Leung, Western Sydney University, 2017; Alexandra Rieger, MIT Media Lab, 2018;

# Select Media Coverage

Berkeley Science Review. "The Sound of New Music."

Science Daily. "Neural Pathway Missing in Tone-Deaf People."

AP News Wire. "No karaoke for you! Bad wiring spells tone-deaf" Broadcast by New York Times, Discovery, Globe and Mail, Yahoo News, Scienceblog.com, and 150 + news sources.

Time.wellness. "What causes tone-deafness?"

Society for Neuroscience. "Neural Pathway Missing In Tone-deaf People." Broadcast by Science Daily and other news sources.

New Scientist. "Tone-deaf people have fewer brain connections."

CNN Health. "Freaky news about your brain may change your mind."

WNYC (NPR New York) interview. Soundcheck.

Boston Globe. "Symphony in J-flat."

WGBH (Boston) interview. The Callie Crossley Show.

Association for Women in Science. "The Science of Music."

Harvard Medicine. "Musical Medicine."

BBC Radio 4. "Am I Tone-Deaf?"

Maisonneuve. "Face the Music."

New Scientist. "Pitch Perfect."

Science news. "The Tune Wreckers."

NBC News. "Sorry, Pharrell. Music doesn't make everyone happy, study shows."

Public Radio International. The Really Big Questions. "Why Does Music Move Us?" Broadcast by NPR and other news sources.

CBC Radio. Ideas. "The Ballad of Tin Ears." Broadcast by NPR and other news sources.

Boston Globe. "Quartet plays at the intersection of medicine and music."

Radio Health Journal. "Tone-Deafness."

BBC Future. "The strange phenomenon of musical 'skin orgasms"

Jezebel.com. "Music Can Give You 'Skin Orgasms'"

Newstalk (Irish Radio). Moncrieff Show.

Cape Town Radio Overnight Live (South African Radio).

New York Magazine. "Music Gives Some People 'Skin Orgasms"

The Guardian. "Breakthrough in understanding the chills and thrills of musical rapture."

Smithsonian. "What Happens in the Brain When Music Causes Chills?"

Neuroscience News, ViralNova, Iflscience, and other sources. "If Listening To Music Gives You Chills You May Have A Unique Brain."

Smithsonian Channel. "Sacred Sites: Malta."

#### Interests and Activities

2000-Present Free-lance violinist

2011-Present	Folie à Quatre String Quartet Violinist
2007-Present	Longwood Symphony Orchestra Violinist
2003-2006	Berkeley Electro/Acoustic Music Foundation (BEAM) Artistic Consultant
2003-2005	Graduate Assembly of Students in Psychology Webmaster
2001-2003	Duke Psychology Union Publicity Manager
1999-2003	Psi Upsilon Fraternity, Chi Delta Chapter Secretary, 2000-2002
1999-2003	Duke Symphony Orchestra Concertmaster & Soloist, 2002-2003