

**Psyche Loui**  
Curriculum Vitae

Department of Music  
College of Arts, Media and Design  
Center for Cognitive and Brain Health  
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**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

**EMPLOYMENT HISTORY**

- 2021–            Northeastern University, Boston MA  
                  *Associate Professor of Creativity and Creative Practice*  
                  *Department of Music, College of Arts, Media and Design*  
                  *Core Faculty, Center for Cognitive and Brain Health*  
                  *Affiliate Associate Professor of Psychology, College of Science*
- 2018-2021     Northeastern University, Boston MA  
                  *Assistant Professor of Creativity and Creative Practice*  
                  *Department of Music, College of Arts, Media and Design*  
                  *Core Faculty, Center for Cognitive and Brain Health*  
                  *Affiliate Assistant Professor of Psychology, College of Science*
- 2013-2019     Wesleyan University, Middletown CT  
                  *Assistant Professor*  
                  *Department of Psychology*  
                  *Program in Neuroscience & Behavior*  
                  *College of Integrative Sciences*
- 2008-2013     Beth Israel Deaconess Medical Center and Harvard Medical School, Boston MA  
                  *Instructor in Neurology*

- 2007-2008 Beth Israel Deaconess Medical Center and Harvard Medical School, Boston MA  
*Research Fellow*
- 2003-2006 Center for New Music and Audio Technologies, Berkeley CA  
*Graduate Student Researcher*
- 2003-2006 UC Berkeley Auditory Perception Laboratory, Berkeley CA  
*Graduate Student Researcher*
- 2003 Duke University Center for Cognitive Neuroscience, Durham NC  
*Research Associate*

## RESEARCH / SCHOLARSHIP

### PUBLICATIONS

h-index (scholar.google.com): 33

*Notes: Publications after 2018 were completed at Northeastern University. \* denotes trainees.*

#### Edited Volume

Margulis, E. H., Loui, P., & Loughridge, D. (Eds.). (2023). *Science-Music Borderlands: Reckoning the Past and Imagining the Future*. MIT Press.

#### Preprints and articles in review

Faber, S. E.\*, Belden, A. G.\*, **Loui, P.**, & McIntosh, A. R. (2023). Age-related variability in network engagement during music listening. In review.  
<https://doi.org/10.1101/2023.03.24.534123>

**Loui, P.**, Kubit, B. Y., Ou, Y.\*, & Margulis, E. H. (2023). Imaginings from an Unfamiliar World: Narrative Engagement with a New Musical System. In review.

Belden, A.\*, Quinci, M. A.\*, Geddes, M. R., Hanser, S. B., Donovan, N. J., & **Loui, P.** (2023). Functional Organization of Auditory and Reward Systems in Healthy Aging. In review. *BioRxiv* <https://doi.org/10.1101/2023.01.01.522417>.

Kathios, N.\*, Sachs, M. E.\*, Zhang, E.\*, Ou, Y.\*, & **Loui, P.** (2022). Generating New Musical Preferences from Hierarchical Mapping of Predictions to Reward. In review. *BioRxiv* <https://doi.org/10.1101/2022.06.17.496615>

Woods, K. J. P., Sampaio, G.\*, James, T.\*, Przysinda, E.\*, Hewett, A., Spencer, A. E., Morillon, B., **Loui, P.** (2021). Stimulating Music Supports Attention in Listeners with Attentional Difficulties. In review. *BioRxiv* <https://www.biorxiv.org/content/10.1101/2021.10.01.462777v1>.

#### Reviewed articles

- 2023 Tinney, E. M.\*, **Loui, P.**, Raine, L. B., Hiscox, L. V., Delgorio, P. L., Kramer, M. K., Schwarb, H., Martens, C. R., Kramer, A. F., Hillman, C. H., & Johnson, C. L. (2023). Influence of mild cognitive impairment and body mass index on white matter integrity assessed by diffusion tensor imaging. *Psychophysiology*, e14306. <https://doi.org/10.1111/psyp.14306>

- Ozaki, Y., Tierney, A., Pfordresher, P. Q., McBride, J., Benetos, E., Proutskouva, P., ... Savage, P. E. (Accepted in Principle). Similarities and differences in a global sample of song and speech recordings [Stage 1 Registered Report]. *Peer Community in Registered Reports*. Preprint: <https://doi.org/10.31234/osf.io/jr9x7>
- Loui, P.** (2023). BP Sequencer: A Low-Barrier-to-Entry Assessment Tool for Musical Creativity. *Proceedings of the TENOR Conference*, Northeastern University, Boston, MA.
- 2022 Tichko, P.\*, Page, N.\*, Kim, J. C., Large, E. W., & **Loui, P.** (2022). Neural Entrainment to Musical Pulse in Naturalistic Music Is Preserved in Aging: Implications for Music-Based Interventions. *Brain Sciences*, *12*(12), 1676. <https://doi.org/10.3390/brainsci12121676>
- Chen, W., Iversen, J., Kao, M., **Loui, P.**, Patel, A., Zatorre, R., & Edwards, E. (2022). Music and Brain Circuitry: Strategies for Strengthening Evidence-Based Research for Music-Based Interventions. *Journal of Neuroscience*, *42*(45), 8498.
- Ai, M.\*, **Loui, P.**, Morris, T.P., Chaddock-Heyman, L., Hillman, C.H., McAuley, E., Kramer, A.F. Musical experience relates to insula-based functional connectivity in older adults. (2022). Musical Experience Relates to Insula-Based Functional Connectivity in Older Adults. *Brain Sciences*, *12*(11), 1577. <https://doi.org/10.3390/brainsci12111577>
- Quinci, M. A.\*, Belden, A.\*, Goutama, V.\*, Gong, D.\*, Hanser, S., Donovan, N. J., Geddes, M., Loui, P. (2022). Longitudinal changes in auditory and reward systems following receptive music-based intervention in older adults. *Scientific Reports*, *12*(1), 11517.
- Loui, P.** & Margulis, E.H. (2022). Creativity and Tradition: Music and Bifocal Stance Theory. *Behavioral and Brain Sciences*, *45*, e262.
- Loui, P.** (2022). New Music System Reveals Spectral Contribution to Statistical Learning. *Cognition*, *224*, 105071.
- Kathios, N.\*, & **Loui, P.** Musical Enculturation in the Social Coevolution of Emotions. *Evolutionary Studies in Imaginative Culture*, *6*(1), 33-38.
- 2021 Chaddock-Heyman, L., Weng, T. B., **Loui, P.**, Kienzler, C., Weisshappel, R., Drollette, E. S., ... Kramer, A. F. (2021). Brain network modularity predicts changes in cortical thickness in children involved in a physical activity intervention. *Psychophysiology*, *58*(10), e13890.
- Loui, P.** (2021). Use-Inspired Music Cognition: Designing Cognitively Informed Musical Interventions for the Brain. *Proceedings of the Future Directions of Music Cognition International Conference*, 6–7 March 2021.
- Krotinger, A.\*, & **Loui, P.** (2021). Rhythm and Groove as Cognitive Mechanisms of Dance Intervention in Parkinson's Disease. *PLoS ONE* *16*(5): e0249933. <https://doi.org/10.1371/journal.pone.0249933>.
- Savage, P.E., **Loui, P.**, Tarr, B., Schachner, A., Glowacki, L., Mithen, S.J., & Fitch, W.T. (2021). Toward inclusive theories of the evolution of musicality. *Behavioral and Brain Sciences*, *44*, e121.

- Savage, P.E., **Loui, P.**, Tarr, B., Schachner, A., Glowacki, L., Mithen, S.J., & Fitch, W.T. (2021). Music as a coevolved system for social bonding. *Behavioral and Brain Sciences*, *44*, e59
- Granot, R.Y., Spitz, D.H., Cherki, B.R., **Loui, P.**, Timmers, R., Schaefer, R., ... Israel, S. (2021). "Help! I Need Somebody": Music as a Global Resource for Obtaining Wellbeing Goals in Times of Crisis. *Frontiers in Psychology*, *12*, 648013.
- Tichko, P.\* , Kim, J. C., Large, E., & **Loui, P.** (2020). Integrating music-based interventions with Gamma-frequency stimulation: Implications for healthy aging. *European Journal of Neuroscience*. In press.
- Chaddock-Heyman, L., **Loui, P.**, Weisshappel, R., McAuley, E., & Kramer, A.F. (2021). Musical training and brain volume in older adults. *Brain Sciences*, *11*(1), 50.
- 2020 **Loui, P.** (2020). Neuroscientific Insights for Improved Outcomes in Music-Based Interventions. *Music and Science*, *3*, 1-9.
- Baker, D. J., Belfi, A., Creel, S., Grahn, J., Hannon, E., **Loui, P.**, . . . Vuvan, D. T. (2020). Embracing Anti-Racist Practices in the Music Perception and Cognition Community. *Music Perception*, *38*(2), 103-105.
- Wang, D.\* , Belden, A.\* , Hanser, S., Geddes, M., & **Loui, P.** (2020). Resting-State Connectivity of Auditory and Reward Systems in Alzheimer's Disease and Mild Cognitive Impairment. *Frontiers in Human Neuroscience*, *14*:280.
- Belden, A.G.\* , Zeng, T.\* , Przysinda, E.\* , Anteraper, S., Whitfield-Gabrieli, S., **Loui, P.** (2020). Improvising at rest: Differentiating jazz and classical music training with resting state functional connectivity. *NeuroImage*, (207), 116384.
- Belfi, A., **Loui, P.** (2020). Musical anhedonia and rewards of music listening: Current advances and a proposed model. *Annals of the New York Academy of Sciences*, *1464*(1), 99-114.
- 2019 Lee, D.J.\* , Jung, H., & **Loui, P.** (2019). Attention Modulates Electrophysiological Responses to Simultaneous Music and Language Syntax Processing. *Brain Sciences*, *9*(11): 305.
- Loui, P.**, Raine, L.B., Chaddock-Heyman, L., Kramer, A.F., Hillman, C.H. Musical Instrument Practice Predicts White Matter Microstructure and Cognitive Abilities in Childhood. (2019). *Frontiers in Psychology*, *10*:1198.
- Arkin, C.\* , Przysinda, E.\* , Pfeifer, C.\* , Zeng, T.\* , **Loui, P.** Grey Matter Correlates of Creativity in Musical Improvisation. (2019). *Frontiers in Human Neuroscience*, *13*:169.
- 2018 **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).

- Woods, K.J.P., Hewett, A., Spencer, A., Morillon, B., & **Loui, P.** (2018). Modulation in background music influences sustained attention. *ArXiv*.  
<https://arxiv.org/abs/1907.06909>
- Zeng, T.\*, Przysinda, E.\*, Pfeifer, C.\*, Arkin, C.\*, & **Loui, P.** (2018). White Matter Connectivity Reflects Success in Musical Improvisation. *BioRxiv*  
<https://doi.org/10.1101/218024>
- 2017 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.
- 2016 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.
- 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 on Music Perception and Cognition*. 175-179.
- 2015 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. *Annals 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.

- 2014 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.**, Koplín-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.
- 2013 **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.
- 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.
- 2012 **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. *Annals of the New York Academy of Sciences*, 1252(1), 354-360.
- Altenmüller, E., Demorest, S.M., Fujioka, T., Halpern, A.R., Hannon, E.E., **Loui, P.**, Majno, M., Oechslin, M.S., Osborne, N., Overly, 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. *Annals of the New York Academy of Sciences*, 1252(1), 1-16.
- 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 on Music Perception and Cognition*, 618-623.
- 2011 **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.
- 2010 **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.,** 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.,** Hohmann, A.\*, Schlaug, G. (2010). Inducing Disorders in Pitch Perception and Production: a Reverse-Engineering Approach. *Proceedings of Meetings on Acoustics*, 9, 1-8.
- 2009 **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.
- 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.
- 2008 **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.
- 2007 **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.
- 2006 **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.
- 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.

- 2005 **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.
- 2004 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.

#### Non-Reviewed articles

- Chew, E., **Loui, P.**, Leslie, G., Palmer, C., Berger, J., Large, E., Bernardi, N., Hanser, S., Thayer, J., Casey, M., Lambiase, P. (2021). How Music Can Literally Heal the Heart. *Scientific American*.
- Tichko, P.\* & **Loui, P.** (2020). A review of Musical Illusions and Phantom Words. *Perception*, 49(7), 798-800.
- Loui, P.** & Belden, A.G.\* (2019). Music and the Brain. *Acoustics Today*, 14(4), 29-37.
- Loui, P.** (2018). How Music Makes Us Human. *Orbiter Magazine*.
- Loui, P.**, Wan, C., Schlaug, G. (2010). Neurological bases of musical disorders and their implications for stroke recovery. *Acoustics Today*, 6, 28-36.

#### Book chapters

- 2023 Zuk, J.M., **Loui, P.**, & Guenther, F.H. Neural Control of Speaking and Singing: The DIVA Model for Singing. To appear in D. Sammler (Ed.), *Oxford Handbook of Music and Language and Music*. Oxford University Press.
- 2022 Belfi, A. M., & **Loui, P.** (2022). The music system. In M. Nadal & M. Skov (Eds.), *The Routledge International Handbook of Neuroaesthetics* (1st ed., pp. 315–336). Routledge. <https://doi.org/10.4324/9781003008675-17>
- 2023 **Loui, P.** Temporal Aspects of Musical Expectancy and Creativity in Improvisation: A Review of Recent Neuroscientific Studies and an Updated Model. In C. Wöllner, J. London (Eds.), *Performing Time: Synchrony and Temporal Flow in Music and Dance*. Oxford University Press.
- 2020 **Loui, P.** Neuroscience of Musical Improvisation. In E. Miranda (Ed.), *Handbook of Artificial Intelligence for Music* (pp. 97-116): Springer.
- 2019 **Loui, P.**, & Guetta, R.\* (2019). Music and Attention, Executive Function, and Creativity. In M. Thaut, D. Hodges (Eds.), *The Oxford Handbook of Music and the Brain* (pp. 283-284): Oxford University Press.
- 2018 Timmers, R., & **Loui, P.** (2018). Music and Emotion. In D. Levitin, J. Rentfrow (Eds.), *Foundations of Music Psychology* (pp. 783-826): MIT Press.
- 2017 **Loui, P.**, Przyssinda, 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.**, O’Brien, S.\*, Sontag, S.\* (2017). Neural Connectivity of the Creative Mind. In S.J. Lopez, L.M. Edwards, S.C. Marques (Eds.), *Oxford Handbook of Positive Psychology*, 3<sup>rd</sup> Edition (pp. 1-24): Oxford University Press.



- 2016 **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.
- 2012 **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.
- 2007 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.

### Abstracts

- 2023 Cheung, V., Harrison, P., **Loui, P.**, Sammler, D. (2023). Predictions in Music: Neurocognitive Insights and Computational Approaches. Symposium presentation at the *International Conference for Music Perception and Cognition*, Tokyo, Japan, August, 2023.
- Faber, S.\*, McIntosh, A.R., Belden, A.\*, Quinci, M.\*, **Loui, P.** (2023). Age-related variability in network engagement during music listening. Oral presentation at the *International Conference for Music Perception and Cognition*, Tokyo, Japan, August, 2023.
- Laats, J.\*, **Loui, P.** (2023). Testing the Effect of Theta-Band Amplitude Modulation on Valence and Arousal of Popular Songs. Poster presentation at the *International Conference for Music Perception and Cognition*, Tokyo, Japan, August, 2023.
- Kathios, N.\*, Lopez, K.\*, Gabard-Durnam, L., **Loui, P.** (2023). Early Life Experiences Relate to Current Music Usage and Preference. Oral presentation at the *International Conference for Music Perception and Cognition*, Tokyo, Japan, August, 2023.
- Lopez, K.\*, Kathios, N.\*, Gabard-Durnam, L., **Loui, P.** (2023). Effects of Developmental Adversity on Adult Music Perception. Poster presentation at the *International Conference for Music Perception and Cognition*, Tokyo, Japan, August, 2023.
- Kathios, N.\*, Lopez, K.\*, Gabard-Durnam, L., **Loui, P.** (2023). Music@Home Retrospective: A New Measure to Retrospectively Assess Early Home Music Environments. Poster presentation at the *International Conference for Music Perception and Cognition*, Tokyo, Japan, August, 2023.
- Belden, A.\*, Quinci, M.A.\*, Hanser, S., Donovan, N.J., Geddes, M., **Loui, P.** (2023). Functional Network Dynamics of Music Listening and Effects of Age. Oral presentation at the *International Conference for Music Perception and Cognition*, Tokyo, Japan, August, 2023.

- Lopez, K.\*, Kathios, N\*., Gabard-Durnam, L., **Loui, P.** (2023). Early Life Adversity Reveals Adaptive Use of Absorption in Music. Submitted to the International Society for Developmental Psychobiology, Utrecht, Netherlands, July, 2023.
- Kathios, N\*., Gabard-Durnam, L\*., **Loui, P.** (2023). Age-Specific Effects of Music Encoding on Reward and Memory Systems in Healthy and Cognitively Impaired Aging. Poster presentation at the *Cognitive Neuroscience Society*, San Francisco, CA, March, 2023.
- Deng, O\*., Kathios, N\*., **Loui, P.** (2023). Neural Activity and Functional Connectivity for Vocal versus Nonvocal Music in Cognitively Healthy Young and Older Adults. Poster presentation at the *Cognitive Neuroscience Society*, San Francisco, CA, March, 2023.
- Belden, A\*., Quinci, M.A\*., Hanser, S., Donovan, N.J., Geddes, M., **Loui, P.** (2023). Auditory and Reward Connectivity in Young and Older Adults During Music Listening and Rest. Poster presentation at the *Cognitive Neuroscience Society*, San Francisco, CA, March, 2023.
- 2022 **Loui, P.** (2022). Rhythm and Predictability for Music-Based Interventions. Symposium presentation on Music and Brain Circuitry: Strategies for Strengthening Evidence-Based Research. Symposium presentation at the *Society for Neuroscience*, San Diego, CA, November, 2022.
- Tinney, E. M\*., **Loui, P.**, Raine, L., Kramer, A.F., Hillman, C.H., Johnson, C.L. (2022). White Matter Integrity, Health Behaviors, and Mild Cognitive Impairment. Poster presentation at the *Society for Psychophysiological Research*. Vancouver, B.C., September, 2022.
- Loui, P.** (2022). Imaginations from an Unfamiliar World: Narrative Engagement from a New Musical System. Symposium presentation at the *International Association of Empirical Aesthetics*, Philadelphia, PA, August, 2022.
- Kathios, N\*., Sachs, M.E\*., Zhang, E\*., & **Loui, P.** (2022). From Prediction to Reward: Individual Differences in Reward Learning. Oral presentation at the *Society for Music Perception and Cognition*, Portland, OR, August, 2022.
- Belden, A\*., Quinci, M.A\*., Goutama, V\*., Gong, D\*., Zhou, C\*., **Loui, P.** (2022). Comparing Auditory and Reward Connectivity in Young and Older Adults During Music Listening and Rest. Oral presentation at the *Society for Music Perception and Cognition*, Portland, OR, August, 2022.
- Kathios, N\*., Patel, A.D., **Loui, P.** (2022). Individuals with specific musical anhedonia show blunted pleasure to nonmusical sounds. Oral presentation at the *Society for Music Perception and Cognition*, Portland, OR, August, 2022.
- Tichko, P\*., Kim, J.C., Large, E., Zappi, V., & **Loui, P.** (2022). Integrating music-based interventions with Gamma-frequency stimulation for Subjective Cognitive Decline and Mild Cognitive Impairment. Poster presentation at the *Alzheimer's Association International Conference*, San Diego, CA, July, 2022.
- Chiu, L., Ai, M., Makram, F., Quinci, M., Cooper, J. **Loui, P.**, & Geddes, M. (2022). Neural Correlates of Effort-Reward Decision-Making in Older Adults. Poster presentation at the *Canadian Neurological Sciences Federation*, June, 2022.

- Kathios, N.\*, Quinci, M.A.\*, **Loui, P.** (2022). When You Heard It First: Age of Exposure Affects Encoding of Music in the Default Mode Network. Poster presentation at the *Cognitive Neuroscience Society*, San Francisco, CA, April, 2022.
- Tinney, E. \*, **Loui, P.**, Kramer, A.F., Hillman, C., Johnson, C. (2022). The relationship between cognition and white matter integrity in mild cognitive impairment using diffusion tensor tractography. Poster presentation at the *Cognitive Neuroscience Society*, San Francisco, CA, April, 2022.
- Tichko, P.\*, Page, N.\*, Kim, J.C., Large, E., Zappi, V., & **Loui, P.** (2021). A Novel Gamma- and Music-Based Intervention for Alzheimer’s Disease and Dementia-Related Disorders. Oral presentation at the *Cognitive Neuroscience Society*, San Francisco, CA, April, 2022. **Data blitz award winner**
- Quinci, M.A. \*, Belden, A. \*, Goutama, V. \*, Gong, D. \*, Zhou, C. \*, Hanser, S., Donovan, N.J., Geddes, M., **Loui, P.** Differences in Auditory and Reward Processing During Music Listening in Young and Older Adults. Poster presentation at the *Cognitive Neuroscience Society*, San Francisco, CA, April, 2022.
- 2021 Ai, M. \*, Morris, T.P., Chaddock-Heyman, L., **Loui, P.**, Whitfield-Gabrieli, S., Hillman, C.H., McAuley, E., Kramer, A.F. (2021). Musical experience relates to functional connectivity in older adults. Poster presentation at the *Gerontological Society of America*, Phoenix, AZ., November 2021.
- Loui, P.**, Sachs, M.E. \*, Zhang, E. \*, Walker, D.\* (2021). Decreased Social Reward Sensitivity in Musical Anhedonia. Poster presentation at the *Neurosciences of Music VII*, Aarhus, Denmark, June 2021. [Postponed from 2020 due to COVID-19]
- Hanser, S., Wilson, G. \*, Goutama, V. \*, Geddes, M., & **Loui, P.** (2021). Receptive Music Intervention in Older Adults: A Behavioral and fMRI Investigation. Poster presentation at the *Neurosciences of Music VII*, Aarhus, Denmark, June 2021. [Postponed from 2020 due to COVID-19]
- Joshi, N., Belden, A. \*, Guell, X., Vaheed, F.A., Vaheed, R.A., Lee, Y., **Loui, P.**, Geddes, M., & Anteraper, S., (2021). Disrupted cerebello-cerebral RSFC networks in mild cognitive impairment. Poster presentation for *IEEE Engineering in Medicine and Biology Society (EMBS) Virtual Student International Conference*, June 2021.
- Anteraper, S., Joshi, N., Belden, A. \*, Guell, X., Vaheed, F.A., Vaheed, R.A., Lee, Y., **Loui, P.**, & Geddes, M. (2021). Probing Cerebello-cerebral Resting State Functional Connectivity in Mild Cognitive Impairment. Poster presentation for *Organization for Human Brain Mapping*, June 2021.
- Tichko, P. \*, Page, N. \*, Kim, J.C., Large, E., Zappi, V., & **Loui, P.** (2021). Developing A Novel Gamma- and Music-Based Intervention for Alzheimer’s Disease and Dementia-Related Disorders. Oral presentation at the *New England Sequencing and Timing Conference*, April 2021.
- Quinci, M.A. \*, Belden, A. \*, Goutama, V. \*, Gong, D. \*, Hanser, S. \*, Donovan, N.J., Geddes, M., **Loui, P.** (2021). Effects of Music-Based Intervention on Loneliness and Reward Processing in Aging. Oral presentation at the *New England Sequencing and Timing Conference*, April 2021.

- Tichko, P.\*, Page, N.\*, Kim, J.C., Large, E., Zappi, V., & **Loui, P.** (2021). Developing A Novel Gamma- and Music-Based Intervention for Alzheimer’s Disease and Dementia-Related Disorders. Oral and poster presentation at the *Cognitive Neuroscience Society*, March, 2021. **Postdoctoral award winner**
- Quinci, M.A.\*, Goutama, V.\*, Gong, D.\*, Hanser, S.\*, Donovan, N.J., Geddes, M., **Loui, P.** Effects of Music-Based Intervention on Loneliness and Reward Processing in Aging. Poster presentation at the *Cognitive Neuroscience Society*, March, 2021.
- 2020 Belden, A.\*, Zeng, T.\*, Przysinda, E.\*, & **Loui, P.** (2020). Training-dependent changes of cortical network dynamics in musicians. Poster presentation at the *Society for Neuroscience of Creativity*, October 2020. (virtual presentation).
- Belden, A.\*, & **Loui, P.** (2020). Evaluating Resting State Functional Connectivity in Creative Improvisation. Poster presentation at the *International Association for Music and Medicine*, Boston, MA, May 2020. (virtual presentation).
- Chen, Y.\*, Raine, L., Kramer, A.F., Hillman, C., **Loui, P.** (2020). Are Two Activities Better Than One? Effects of Music Training and Physical Activity on Cognitive Development. Poster presentation at the *International Association for Music and Medicine*, Boston, MA, May 2020. (virtual presentation).
- Wang, D.\*, Geddes, M., Hanser, S., Bhasin, M., Burtonpatel, R.\*, **Loui, P.** (2020). Potential of Receptive Music Intervention on Mild Cognitive Impairment: A Resting State fMRI Study. Poster presentation at the *International Association for Music and Medicine*, Boston, MA, May 2020. (virtual presentation).
- Sachs, M.\*, Zhang, E.\*, Walker, D.\*, Lazar, M.\*, **Loui, P.** (2020). Social Reward in Musical Anhedonia. Oral presentation at the *International Association for Music and Medicine*, Boston, MA, May 2020. (virtual presentation).
- Krotinger, A.\*, **Loui, P.** (2020). Dance Experience Predicts Improvement from Movement Therapy in Parkinson’s Disease. Poster presentation at the *International Association for Music and Medicine*, Boston, MA, May 2020. (virtual presentation).
- Wilson, G.\*, Goutama, V.\*, Hanser, S., Geddes, M., Bhasin, M., **Loui, P.** (2020). Receptive Music Intervention in Older Adults: A Multimodal Longitudinal Study. Poster presentation at the *Cognitive Neuroscience Society*, Boston, MA, March 2020. (virtual presentation).
- Krotinger, A.\*, **Loui, P.** (2020). Assessing and Predicting Efficacy of Dance Intervention for Parkinson’s Disease. Poster presentation at the *Cognitive Neuroscience Society*, Boston, MA, March 2020. (virtual presentation).
- Sachs, M.E.\*, Zhang, E.\*, Walker, D.\*, **Loui, P.** (2020). Learning and Liking a New Musical System. Poster presentation at the *Cognitive Neuroscience Society*, Boston, MA, March 2020. **Data blitz award winner.** (virtual presentation).
- Wang, D.\*, Geddes, M., Hanser, S., Bhasin, M., Burtonpatel, R.\*, **Loui, P.** (2020). Potential of Receptive Music Intervention on Mild Cognitive Impairment: A Resting State fMRI Study. Poster presentation at the *Cognitive Neuroscience Society*, Boston, MA, March 2020. (virtual presentation).

- Wilson, G.\*, Goutama, V.\*, Geddes, M., Bhasin, M., Hanser, S., **Loui, P.** (2020). Neuropsychological assessment for efficacy of receptive music intervention in older adults. Poster presentation at the *Cognitive Neuroscience Society*, Boston, MA, March 2020. (virtual presentation).
- Chen, Y.\*, Raine, L., Kramer, A.F., Hillman, C., **Loui, P.** (2020). Are Two Activities Better Than One? Effects of Music Training and Physical Activity on Cognitive Development. Poster presentation at the *Cognitive Neuroscience Society*, Boston, MA, March 2020. (virtual presentation).
- Loui, P.** (2019). Musical Instrumental Practice Predicts White Matter Microstructure and Cognitive Abilities in Childhood. Oral presentation at *Society for Music Perception and Cognition*, New York, NY, August 2019.
- 2019 Raine, L., Chaddock-Heyman, L., Kramer, A., Hillman, C. **Loui, P.** (2019). White Matter Correlates of Musical Training and Verbal Ability in Children. Poster presentation at the *Cognitive Neuroscience Society*, San Francisco, CA, March 2019. **Poster award winner**
- James, T.\*, **Loui, P.** (2019). Acoustic Cues for Perceiving Race in the Human Voice. Poster presentation at the *Cognitive Neuroscience Society*, San Francisco, CA, March 2019.
- Tay, H.Y.\*, Shai, S., **Loui, P.** (2019). Network Analysis Comparing Structural and Functional Neuroimaging Data. Poster presentation at the *Cognitive Neuroscience Society*, San Francisco, CA, March 2019.
- Belden, A.\*, Zeng, T.\*, Przysinda, E.\*, **Loui, P.** (2019). Differentiating Effects of Improvisational and Non-Improvisational Musical Training on Functional Connectivity. Poster presentation at the *Cognitive Neuroscience Society*, San Francisco, CA, March 2019.
- Krottinger, A.\*, **Loui, P.** (2019). Dance experience predicts improvement from movement therapy in Parkinson's Disease. Poster presentation at the *Cognitive Neuroscience Society*, San Francisco, CA, March 2019.
- Loui, P.**, Olgun, M.\*, Lucas, C. Perceived Speaker Size Drives the Laurel/Yanny Illusion. (2019). Poster presentation at the *Cognitive Neuroscience Society*, San Francisco, CA, March 2019. **Poster award winner**
- Belden, A.\*, Zeng, T.\*, Przysinda, E.\*, **Loui, P.** (2019). Differentiating Effects of Improvisational and Non-Improvisational Musical Training on Functional Connectivity. Poster presentation at the *Society for Neuroscience of Creativity*, San Francisco, CA, March 2019. **Poster award winner**
- Krottinger, A.\*, **Loui, P.** (2019). Dance experience predicts improvement from movement therapy in Parkinson's Disease. Poster presentation at the *Northeast Music Cognition Group*, Boston, MA, March 2019.
- 2018 Belden, A.\*, Zeng, T.\*, Przysinda, E.\*, **Loui, P.** (2018). Hearing Creatively: Default Network Selectively Synchronizes to Auditory Cortex in Jazz Improvising Musicians. Poster presentation at the *Resting State Conference*, Montreal, QC, 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.
- 2017 **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.
- 2016 **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 *14<sup>th</sup> International Conference on 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 *14<sup>th</sup> International Conference on 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.
- 2015 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.



- 2014 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.
- 2013 **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 Brain 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 Group*, 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.
- 2012 **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 *12<sup>th</sup> International Conference on 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.
- 2011 **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, A.\*, 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 IV*, 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.
- 2010 **Loui, P. (2010).** Sensing and Seeing the Musical Brain: a Tutorial. Oral presentation at the *Northeast 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 meeting*, New Haven, CT, March 2010.
- 2009 **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.
- 2008 **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 *The 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.
- 2007 **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.
- 2006 **Loui, P., Wessel, D.L. (2006).** Acquiring New Musical Grammars – a Statistical Learning Approach. Oral presentation at the *9th International Conference on 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.

- 2005 **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.
- 2004 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 *8th 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

- 2024 Invited Residency. Robert Samuels Visiting Scholar Program at Indiana University. (Dates TBA). Bloomington, IN.
- 2023 Invited Keynote. Neuroscience and Music Conference. (October 28, 2023). Hamilton, Ontario, Canada.
- Invited Keynote. Society for Psychophysiological Research. (September 28-30, 2023). New Orleans, LA.
- Invited Symposium. International Conference for Music Perception and Cognition – Asia-Pacific Society for the Cognitive Sciences of Music. *Predictions in Music: Neurocognitive Insights and Computational Approaches*. (August 24-28, 2023). Toyko, Japan.
- Music & Science Lab at Durham University (May 2, 2023). Durham, UK.
- Department of Psychology Seminar. *Why Music Moves Us: New Directions in Music for Brain Health*. (April 20, 2023). Union College, Schenectady, NY.
- Thinking About Music seminar. *Generating New Predictions: New Directions in Music for Brain Health*. (March 31, 2023). University of Cincinnati, College-Conservatory of Music (CCM). Cincinnati, OH.
- Presidential Symposium. American Neuropsychiatric Association. *Prediction and Reward in Music-Based Interventions*. (March 17, 2023). Boston, MA.
- Neuroscience and Cognitive Science (NACS) seminar. *Prediction and Reward Learning in Music, and Implications for Neurodegenerative Disease*. (March 3, 2023). University of Maryland, College Park, MD.
- Invited seminar. Neurohumanities Lab Webinar Series on Music & Neuroscience. *Why Music Moves: Use-Inspired Music Cognition*. (February 17, 2023). University of Parma, Italy.
- Invited seminar. *Music and Brain Circuitry*. University of Bern, Private Clinic. (February 15, 2023). Meiringen, Switzerland.
- Invited plenary. *Music and the Brain Symposium*. (January 20, 2023). Harvard University. Cambridge, MA.
- Plenary speaker. Alpine Brain Imaging conference in Switzerland. *Curious Cases in Musical Behavior, and What They Tell Us about Music for Brain Health*. (January 8-13, 2023). Champéry, Switzerland.

- 2022 Invited speaker. *Music and Brain Circuitry: Strategies for Strengthening Evidence-Based Research*. (November 15, 2022). Society for Neuroscience. San Diego, CA.
- Invited Panelist. *Music in an Interdisciplinary World*. (November 9, 2022). Harvard University. Cambridge, MA.
- Role of Music in Education and Health. *Music-Based Interventions Across the Lifespan*. (October 27, 2022). Harvard University. Cambridge, MA.
- University of Florida Neuroscience Seminar. McKnight Brain Institute, The Department of Neuroscience, The Center for Aging and Memory, and the Center for Smell and Taste. *The Neuroscience of Musical Emotion and Creativity: Implications for Music-Based Interventions*. (October 13, 2022). University of Florida, Gainesville, FL.
- Invited panelist. Sound Health Renew/Remix. *When We Sing: Eric Whitacre & Afro Blue*. (October 3, 2022). Kennedy Center, Washington, DC.
- Keynote speaker. Acoustical Society of America Webinar Series. *Prediction and Reward for Music-Based Interventions*. (September 19, 2022). Virtual event.
- Keynote speaker. International Conference of Students of Systematic Musicology. *Towards a psychology and neuroscience of new music*. (September 7, 2022). Ghent, Belgium.
- Invited panelist. Society for Music Perception and Cognition. Symposium. *Meet the Editors*. (August 6, 2022). Portland, OR.
- Invited panelist. Society for Music Perception and Cognition. Symposium on Misophonia, ASMR, and Musical Frisson. *Musical Anhedonia and Individual Differences in Musical Prediction and Reward*. (August 6, 2022). Portland, OR.
- Datasounds, datasets and datasense: Unboxing the hidden layers between musical data, knowledge and creativity. *Generation of New Musical Preferences from Hierarchical Mapping of Predictions to Reward*. (June 27, 2022). London, England.
- Dartmouth Symposium on Music and Medicine in Cross-Cultural Perspective. *Curious Cases in Musical Behavior, and What They Tell Us about Music for Brain Health*. (April 22-24, 2022). Dartmouth College, Hanover, NH.
- Music, Mind and the Brain. *Musical Expectancy and Creativity in Improvisation*. (March 24, 2022). University of Southern California, Los Angeles, CA. Remote event.
- Comparing Domains of Improvisation. *Musical Expectancy and Creativity in Improvisation*. (March 18, 2022). Columbia University, New York, NY.
- Marcus Institute for Aging Research / Hebrew Senior Life. (March 16, 2022). *Music-Based Interventions for Brain Health*. Harvard Medical School, Boston, MA.
- Psychology, Neuroscience and Behavior Department Colloquium. (March 10, 2022). *Curious Cases in Musical Behavior, and What They Tell Us about Music for Brain Health*. McMaster University, Hamilton, Ontario, Canada. Remote event.
- Psychological & Brain Sciences Proseminar series. (March 3, 2022). *Curious Cases in Musical Behavior, and What They Tell Us about Music for Brain Health*. University of Nevada Las Vegas, Las Vegas, NV.
- Sound Health Network. (February 23, 2022). *Musical Improvisation and Therapeutic Applications*. Remote event.

- Keynote speaker, SocialBRIDGES conference on The Biological Bases of Music. (January 19, 2022). *Prediction and Reward in Music Across the Lifespan*. Remote event.
- 2021 General lecture. (November 4, 2021). *Why Does Music Move Us?* Georgia State University, Atlanta, GA.
- Technical lecture. (November 5, 2021). *Use-Inspired Music Cognition: Music-Based Interventions for Cognitive and Brain Health*. Georgia State University, Atlanta, GA.
- Invited presentation. (September 23, 2021). *Cognitive and Brain Health*. Board of Trustees Meeting, Northeastern University, Boston, MA.
- Keynote presentation. International Society for Neuroregulation and Research. (June 25, 2021). *Music-Based Interventions for Cognitive and Brain Health*. Remote event.
- ABC Summer School on Musicality. (June 24, 2021). *Why do we enjoy listening to sad music?* University of Amsterdam. Hybrid event.
- In Tune with Your Brain: Harmonizing Creative, Clinical, and Community. (May 15, 2021). *Why Does Music Move Us?* University of British Columbia. Remote event.
- Cognitive Science Graduate Seminar. (April 30, 2021). *Perception and Production in Music*. University of California at San Diego. Remote event.
- Social Mind Center. (April 28, 2021). *Emotion and Creativity for Music in the Brain*. Central European University. Remote event.
- NU@Noon. (April 1, 2021). *Music-Based Interventions for Cognitive and Brain Health*. Northeastern University. Remote event.
- Division of Cognitive and Behavioral Neurology, Center for Brain/Mind Medicine Journal Club. (March 31, 2021). *Music-Based Interventions for Healthy Neurocognitive Aging*. Brigham and Women's Hospital, Harvard Medical School. Remote event.
- Neuroscience of Music. (March 26, 2021). *Music as a Window into Emotion and Creativity*. McMaster University. Remote event.
- Creativity at the Edge: Health, Music and Community. *Music and Creativity*. (March 18, 2021). Harvard University. Remote event.
- Invited Speaker Series. (March 18, 2021). *Music as a Window into Emotion and Creativity*. Goldsmiths University of London. Remote event.
- Future Directions of Music Cognition. (March 1, 2021). *Use-Inspired Music Cognition: Designing Cognitively Informed Musical Interventions for the Brain*. Ohio State University. Remote event.
- Psychology of Music. (February 22, 2021). *Music and Emotion: Insights from Musical Anhedonia*. Tufts University. Remote event.
- 2020 International Association for Music and Medicine. (November 11, 2020). *Music and Neuroscience: Models for Collaboration*. IAMM Insights Presentation. Remote event.
- After Dark Online. (November 19, 2020). *Sustenance — Contemplating Creativity*. San Francisco Exploratorium. Remote event.
- Psychology Department Seminar. (October 26, 2020). *Music as a Window into Emotion and Creativity*. Hamilton College. Remote event.

- Society for Neuroscience of Creativity. (October 22, 2020). *How to make it as a creativity researcher*. Panel discussion. Remote event.
- Psychoacoustics Seminar. (October 12, 2020). *Pitch perception*. Berklee College of Music. Remote event.
- Role of Music in Education and Health. (October 8, 2020). *Music as a tool for improving brain functions*. Harvard University. Remote event.
- Psychology Department Seminar. (September 30, 2020). *Music as a Window into Emotion and Creativity*. University of Toronto. Remote event.
- Biology Department Seminar. (September 28, 2020). *Music as a Window into Emotion and Creativity*. Northeastern University. Remote event.
- Georgia Tech Center for Music Technology Seminar. (September 14, 2020). *Why does music move us?* Georgia Tech. Remote event.
- Science Café New Hampshire (July 15, 2020). *Coping through Music Therapy: How does it work? What can it do?* Virtual event via Facebook Live and YouTube.
- Harvard Brain Science Institute. (May 5, 2020). *Music on the Mind*. Harvard Medical School, Boston, MA. [postponed due to COVID-19]
- Graduate School of Design. (March 27, 2020). *Thresholds: Design and Science*. Harvard University, Cambridge, MA. [postponed due to COVID-19]
- Brain and Cognitive Sciences Seminar. (March 23, 2020). *Music as a Window into Creativity and Emotion*. Tufts University, Medford, MA. Remote event.
- Northeastern University Meet the University Lecture. (February 27, 2020). *Why Does Music Move Us?* Northeastern University, Boston, MA
- Global Council on Brain Health (GCBH). (February 20, 2020). *Music and Brain Health*. AARP Headquarters. Washington, DC
- American Academy for the Advancement of Science (AAAS). (February 14, 2020). *Music and Emotion: Insights from Musical Anhedonia*. Seattle, WA
- Swissnex Boston and SciArt, LASER Boston. (February 7, 2020). *Sensory Overload*. Swissnex Boston, Cambridge, MA
- 2019 University of Hamburg. (December 12, 2019). *Music as a Window into Emotion and Creativity*. University of Hamburg, Hamburg, Germany
- Hochschule für Musik und Theater Hamburg, (December 10, 2019). *Music, Imaging, and Neural Dynamics*. Hochschule für Musik und Theater Hamburg, Hamburg, Germany.
- Radcliffe Institute for Advanced Study. (November 18, 2019). *Music and the Heart: From Mathematics to the Mind, An Exploratory Seminar*. Cambridge, MA
- Harvard Business School. (November 4, 2019). *Intersection of Music, Medicine, and Innovation*. Klarman Hall, Harvard Business School, Boston, MA
- King's College London, London, England (October 24, 2019). *Music in the Age of Artificial Creation*. Institut Français, London, UK
- New York University Center for Language, Music, and Emotion (CLaME) Inaugural Lecture. (September 5, 2019). *Learning, Liking, and Learning to Like: Statistical Learning as a Guiding Principle for Musical Creativity and Emotion*. New York University, New York, NY



- School of Electrical Engineering and Computer Science, Queen Mary University of London. (July 26, 2019). *Neural and Cognitive Substrates of Learning, Liking, and Learning to Like*. Queen Mary University of London, London, England
- BrainMind at MIT, Cambridge Summit. (May 5, 2019) *Music as an Interplay of Prediction and Reward*. MIT, Cambridge, MA
- Honors College Signature Seminar, University of Arkansas. (2019, April 18). *Music as a Window into the Human Brain*. University of Arkansas, Fayetteville, AK
- Center for Digital Arts and Experimental Media (DXARTS), University of Washington. (2019, March 1). *Music as a Window into the Human Brain*. University of Washington, Seattle, WA
- 2018 Faculty of Environment and Information Studies, Keio University SFC (December 14, 2018). *Music as a Window into the Human Brain*. CompMusic and NeuroMusic Labs, Keio University SFC, Japan
- Sylvius Lecture, Leiden Institute for Brain and Cognition. (November 29, 2018) *Cognitive Neuroscience Studies of Musical Improvisation and Creativity*. Leiden University, Netherlands
- Leiden Institute for Brain and Cognition. (November 30, 2018). *Public Symposium on Music Cognition and the Brain*. Stadsgehoorzaal Leiden, Leiden, Netherlands
- UCLA Conference on Art, Neuroscience, and Psychiatry. (November 2, 2018). *Neural and Cognitive Substrates of Musical Aesthetics*. Los Angeles, CA
- Neuroaesthetics Seminar, Harvard College. (October 4, 2018). *Music as a Window into the Human Brain*. Harvard University, Cambridge MA
- Seminar on Music, Education, and Health, Harvard College (September 20, 2018). *Music and Exceptional Abilities*. Harvard University, Cambridge MA
- Psychology Colloquium, Connecticut College. (September 10, 2018). *Music Perception, Action, and Creativity*. Connecticut College, New London, CT
- Aspen Ideas Festival. (June 30, 2018). *Getting the Chills: Evolutionary Clues to Music that Moves*. Aspen, CO
- Faculty of Music, University of Cambridge. (June 25, 2018). *Musics, selves and societies: the roles of music in effecting change*. University of Cambridge, UK
- World Science Festival. (June 2, 2018) *Notes on the Folds: Why Music Makes Us Shiver*. New York, NY
- Taste of Science Boston. (April 28, 2018). *Music for the Brain*. Lord Hobo, Cambridge, MA
- Dinosaur Annex Contemporary Music Ensemble. (April 14, 2018). *Conversation Between Ear and Tongue*. Third Life Studio, Somerville, MA
- Oxford Science Café, University of Mississippi. (April 4, 2018). *Your Brain on Music: The Neuroscience of Music Perception and Cognition*. University of Mississippi, Oxford, MS
- Brain Awareness Week, University of Mississippi. (April 3, 2018). *How Does the Brain Enable Creativity?* University of Mississippi, Oxford, MS

- Active Listening – Experiencing and Visualizing Sound workshop, Northeastern University (March 15, 2018) *Neuroscience, psychoacoustics and sonification*. Northeastern University, Boston, MA
- Psychology Colloquium, Connecticut College, New London, CT (February, 2018)
- Department of Music, Northeastern University, Boston, MA (January, 2018)
- 2017 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)
- 2016 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)
- 2015 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)
- 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)
- 2014 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)
- 2013 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)
- 2012 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)
- 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)
- 2010 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 Gesprächskreis 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)
- 2009 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)
- 2008 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)
- 2007 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)
- 2006 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)

## GRANTS

### External – Funded

- 2022-2027 National Institutes of Health R01 AG078376-01. Gamma-Music Based Intervention for Mild Alzheimer's Disease. \$2,722,093. Role: PI.
- 2022-2024 National Institutes of Health R21 AG075232-01. Multimodal Musical Stimulation for Healthy Neurocognitive Aging. \$436,541. Role: PI.
- 2022-2023 National Institutes of Health R43 AG078012-01. SynchronyGamma: A Music-Based Intervention for Alzheimer's and Mild Cognitive Impairment. \$420,277. Role: Co-PI.

- 2020-2025 National Science Foundation CAREER Award. Prediction and Reward in Auditory Statistical Learning. \$698,469. Role: PI.
- 2020-2021 National Science Foundation Small Business Technology Transfer Program. SynchronyGamma – A Music-Based Intervention for Alzheimer’s and MCI. \$225,000 (Northeastern sub-award: \$112,642). Role: Co-PI.
- 2020-2022 Kim & Glen Campbell Foundation. Effects of Self-Selected Music Listening on Mild Cognitive Impairment. \$25,000. Role: PI.
- 2019-2021 Grammy Foundation. Musical Anhedonia and the Specificity of Musical Reward. \$20,000. Role: PI.
- 2017-2018 National Science Foundation Small Business Technology Transfer Program. Remediating Inattention via Algorithmically Generated Music. \$225,000 (Wesleyan sub-award: \$112,361). Role: Co-PI.
- 2015-2017 Imagination Institute. Structural and Functional Biomarkers of Aesthetic Creativity and Imagination. \$200,000. Role: PI.
- 2015-2017 Grammy Foundation. Auditory Biofeedback for Seizure Detection and Control. \$20,000. Role: PI.
- 2010-2012 Templeton Foundation for Positive Neuroscience. The Role of Hyperconnectivity in Creative Perception and Cognition. \$180,000. Role: PI.
- 2008-2013 National Institutes of Health R01DC009823-01 grant for Neural Control of Vocal Production in Tone-Deafness. \$2,120,800. Role: Co-Investigator. (PI: Gottfried Schlaug).
- 2008-2010 Grammy Foundation. Emotional Functioning in Tone-Deafness. \$40,000. Role: PI.
- 2009-2016 Social Sciences and Humanities Research Council (SSHRC). Advancing Interdisciplinary Research in Singing (AIRS). \$2,500,000. Role: Collaborator (PI: Annabel J Cohen).
- 2004-2005 National Sciences & Engineering Research Council of Canada, Postgraduate Scholarship. \$17,300. (Declined, to accept UC Berkeley Graduate Fellowship.)

External – Pending

- 2023-2026 National Science Foundation. Reward Prediction in Creative Perception and Production. Role: Co-PI.
- 2023-2024 Sony Foundation Faculty Innovation Award. Automated Adaptive Amplitude Modulation for Music as Brain Stimulation. Role: PI.

Internal – Funded

- 2020-2021 Northeastern University Tier I. Mentored Award: Multimodal Brain Stimulation for Healthy Neurocognitive Aging. \$50,000. Role: Co-PI.
- 2020 Northeastern University COVID-19 Crisis Seed Funding. SoundHealth.io: An Interdisciplinary Network for Music and Health. \$5,000. Role: PI.

- 2018 Northeastern University CAMD Dean's Fellows of Critical Creative Practice. Perception, Practice, Creative Work: Insights from Across the Arts. \$15,000. Role: Co-PI.
- 2016 Allbritton Center for the Study of Public Life. Improvisation and Spirituality: A Lecture Series at Wesleyan University. \$5,000. Role: PI.
- 2016 Wesleyan University Creative Campus Cross-Disciplinary Collaboration. Music Perception and Cognition: Module on Improvisation and Creativity. \$1,000. Role: Co-PI.
- 2014 Wesleyan University Grants In Support of Scholarship. EEG Sonification for the Detection of Seizures. 2014. \$3,200. Role: PI.
- 2012-2013 Harvard Catalyst Clinical Research Center Laboratory Support. Genomic Markers of Tone-Deafness. \$4,940. Role: PI.
- 2006-2007 UC Berkeley Dissertation Award. Statistical Learning of Musical Grammars. \$2,000. Role: PI.

Internal – Pending

- 2023-2024 CAMD Seed Grant: Music and the Immune System in Alzheimer's Disease.
- 2023-2024 Center for Cognitive and Brain Health Interdisciplinary Seed Grant: Musical Reward in Childhood and Adolescence: Buffering Early Life Adversity for Adaptive Decision-Making.

**AWARDS AND HONORS**

- 2022 CAMD Faculty Award in Excellence in Research and Creative Activity
- 2021 Crofton House School Junior Alumna Achievement Award
- 2018-2019 Dean's Fellow in Critical Creative Practice, College of Arts, Media and Design, Northeastern University, Boston, MA.
- 2010 Templeton Positive Neuroscience Award, Positive Psychology Center, University of Pennsylvania, Philadelphia, PA.
- 2003-2008 Graduate Fellowship, Department of Psychology, University of California, Berkeley, Berkeley, CA.
- 2006-2007 Department of Psychology Dissertation Research Fund, University of California, Berkeley, Berkeley, CA.
- 2006 Young Researcher Award, ESCOM (European Society for Cognitive Science of Music), Bologna, Italy.
- 2004-2005 Graduate Training Grant, UC Berkeley, Berkeley, CA.
- 2005 Conference Travel Grant, UC Berkeley Graduate Division, Berkeley, CA.
- 2004 National Sciences & Engineering Research Council of Canada (NSERC), Postgraduate Scholarship
- 2003 Mueller Prize for Excellence in Music, Duke University, Durham, NC.

- 2002-2003 Concerto Competition Winner, Duke University, Durham, NC.
- 2003 Graduation Honors, Duke University, Durham, NC.
- 2002 US National Dean's List
- 2000-2003 Duke University Trinity College Dean's List, Durham, NC.
- 2002 Benenson Award, Duke University Institute of the Arts, Durham, NC.
- 2002 Psi Upsilon Scholarship
- 2002 Ciompi Quartet Scholarship, Duke University, Durham, NC.
- 1999 Ramón y Cajal Award for Excellence in Neurobiology, Duke University, Durham, NC.

## TEACHING

*Courses with two course numbers listed are cross-listed as undergraduate and graduate courses.*

- 2018 - Northeastern University
  - ARTG 5310 "Visual Cognition"  
Fall 2019 (9 students)
  - INAM 3200 "Creative Cognition"  
Spring 2022 (10 students)  
Fall 2020 (12 students)
  - INAM 7000 "Introduction to Research in Design and Media"  
Fall 2022 (15 students)
  - MUSC 2540 "Special Topics in Music: Music Perception and Cognition"  
Fall 2019 (6 students)  
Fall 2018 (13 students) *New course*
  - MUSC 2350 "Acoustics and Psychoacoustics"  
Spring 2019 (17 students)
  - MUSC 3300 "Music Perception and Cognition"  
Fall 2021 (17 students)
  - MUSC 4510 "Music and the Brain Research"  
Spring 2021 (9 students)
  - MUST 3540 "Special Topics in Music Technology: Creative Cognition"  
Fall 2020 (13 students)  
Spring 2019 (13 students) *New course*
  - NUStart "Music, Health, and Well-Being" virtual synchronous course co-  
designed with Rebekah Moore.  
Fall 2020 (40 students)
- 2013-2018 Wesleyan University
  - PSY210 Research Methods in Cognition  
Spring 2017 (15 students)



PSY342 Music Perception and Cognition  
Fall 2016 (15 students)  
Fall 2016 (15 students)  
Spring 2015 (15 students)  
Spring 2014 (15 students) *New course*

PSY398 Advanced Research Methods in Auditory Cognitive Neuroscience  
Spring 2018 (12 students)  
Fall 2014 (12 students) *New course*

NSB225 Cognitive Neuroscience  
Spring 2018 (35 students)  
Fall 2016 (35 students)  
Spring 2016 (35 students)  
Spring 2015 (35 students)  
Fall 2014 (35 students)  
Fall 2013 (35 students) *New course*

2003-2007 UC Berkeley (all co-taught)

PSY1 Introduction to Psychology  
Spring 2007

PSY143 Language Acquisition  
Spring 2006

PSY117 Biological Psychology and Human Dysfunction  
Spring 2005

PSY122 Human Learning and Memory  
Spring 2004

MUS108/208 Music Perception and Cognition  
Fall 2005  
Fall 2004  
Fall 2003

Other Teaching / Teaching Resource Development

2020 Music Technology Online Repository (MUTOR) e-learning project  
Co-author of online course (<http://www.hoou.de>)

1997-2003 RN Harris Magnet School; private employers  
Violin, piano, and music theory teacher

**ADVISING**

Supervision of Postdocs: Advised 1 postdoctoral researcher  
2019 – 2022 Parker Tichko

Supervision of Graduate Students: Advised 15 graduate thesis students  
2021 – Present Nicholas James Kathios, Northeastern University

2017 – Present	Alexander Belden, Northeastern University
2018 – Present	Alexandra Rieger, MIT Media Lab
2018 – 2019	Tedra James, Wesleyan University
2017	Roberta Bianco, Max Planck Inst. for Human Cog. & Brain Sciences
2016 – 2018	Sean Patterson, Wesleyan University
2016	Yanan Sun, Macquarie University
2016	Yvonne Leung, Western Sydney University
2015	David Taylor, University of New South Wales
2014 – 2015	Michael Massone, Wesleyan University
2013	David Wood, Brown University
2013	Berit Lindau, University of Cologne
2009 – 2012	Gus F. Halwani, Harvard-MIT Speech & Hearing Biosciences & Tech.
2008 – 2009	Kenneth Kroog, Boston College
2008 – 2009	Anja Hohmann, Charité – Universitätsmedizin Berlin
2008	Nora Raschle, University of Zurich

Supervision of Staff: Advised 5 postgraduate research staff

2020 – 2022	Milena Quinci
2019 – 2020	Valerie Goutama, now MA candidate at Northeastern University
2015 – 2017	Emily Przysinda, now MD PhD candidate at U. of Rochester
2014 – 2015	Jan Iyer, now PhD candidate at Harvard
2013 – 2014	Ethan Pani, now MD intern at U. of Pennsylvania
2011 – 2012	Anna Zamm, now post-doc at Central European University

Supervision of Undergraduate Students: Advised 61 undergraduate students in research, including 13 undergraduates at Northeastern. \* denotes thesis students.

Ritu Amarnani, 2020-; Catheriine Zhou, 2020-; Nicole Page, 2020-; Itamar Zik, 2021-2022; Christina Carroll, 2020; Felicia Guo, 2020; Aaron Kang, 2020; Jonathan Kang, 2020; Dylan Gong, 2020; Roger Burtonpatel, 2019-2021; Michael Lazar, 2019; Dana Walker, 2019; \*Grace Wilson, 2019-2020; Euan Zhang, 2019-2022; Yaen Chen, 2019-2022; \*Diana Wang, 2019-2020; \*Anna Krotinger, 2019-2021; Melisa Olgun, 2018; Ben Saldich, 2018; Adam Manson, 2018; Daniel Lee, 2017-2018; Kinsey Yost, 2017-2018; \*Han Tay, 2017-2019; Gonçalo Sampaio, 2017-2018; Molly Byrne, 2017; Monday Zhou, 2016-2017; Joshua Usdan, 2017; Charles Pfeifer, 2016; Sarah Knight, 2016-2017; CJ Mathew, 2016-2018; \*Tedra James, 2016-2019; \*Tima Zeng, 2016-2017; Cameron Arkin, 2015-2017; Maxime Bouvagnet, 2015-2018; Kellyn Maves, 2015-2016; Wy Ming Lin, 2015-2016; Keith Spencer, 2015-2016; Rachel Guetta, 2014-2017; Ari Lewenstein, 2014-2015; \*Sydney Lolli, 2014-2015; \*Matan Koplín-Green, 2014-2015; Min Cheol Lee, 2014-2015; Caroline Jankowski, 2014-2015; \*Harim Jung, 2014-2016; Julian Basurto, 2014-2015; \*Faisal Kirdar, 2014; Lauren Seo, 2013-2014; \*Mary Kathryn Abel, 2012-2014; Jan Iyer, 2012-2014; \*Matthew Sachs, 2011-2012; Sam Fang, 2010-2011; Sang-Hee Min, 2010-2011; John McLaren, 2009; Nadia Ouhib, 2008; Katherine Akalovsky, 2007-08; Camilla Rosam, 2007-08; Hui Charles Li, 2007-; Shaochen Hailey Wu, 2007; Johannes Sommer, 2006; Young Lee, 2006; Jorge Duque, 2006; Judy Wang, 2005-07; Joann Chang, 2005; Tiffany Day, 2005; Pearl Chen, 2005-06; Elaine Wu, 2004-06

Academic Advising: Advised 2 assigned undergraduate advisees each year on curricular matters.

## SERVICE

### Service to the Institution

#### *Department Service*

##### *Northeastern University*

2022 – 2023	Cognitive and Brain Health Search Committee
2021 – 2022	Chair, Music and AI Search Committee
2020 – 2021	Theater Search Committee
2019 – 2020	Cognitive and Brain Health Search Committee (Psychology)
2018 – 2019	Music Technology Search Committee

##### *Wesleyan University*

2016 – 2017	Cognitive Visitor Search Committee
2016 – 2017	Colloquium Committee
2015 – 2017	Ploughback Committee
2015 – 2016	BA/MA Committee
2013 – 2014	Cognitive Visitor Search Committee
2014 – 2015	Cognitive Search Committee
2014 – 2015	Advising Experts

#### *College Service*

2023 – Present	CAMD Awards Committee
2022 – Present	Chair, CAMD Executive Committee
2021 – Present	CAMD PhD Committee
2022	CAMD Graduate Programs Workgroup
2021 – 2022	CAMD Humanics and AI Search Committee
2019 – 2021	Creative Studies Task Force
2018 – 2021	CAMD PhD Task Force

#### *University Service*

2016 – 2017	Tenure Track Representative to Academic Council (@Wesleyan)
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### Service to the Discipline/Profession

2022 – Present	Reviewer and Panelist, NIH Study Section for Music and Health
2021 – Present	Panelist for Sound-Health Initiative, National Institutes of Health.
2020	Panelist on Perception, Action and Cognition Study Section, National Science Foundation.
2020 – Present	Chair, Neuroscience Task Force, International Association for Music and Medicine.
2020 – Present	Issue Expert on Music and Brain Health for Global Council for Brain Health, AARP. Discussed research, developed consensus statements, and made recommendations for the role of music in brain health for the aging population.
2019 – 2020	Chair, Society for Music Perception and Cognition Conference Organization Subcommittee. Made recommendations for changes to the conference model of SMPC.

2018 – 2020	Media Communications Director, Society for Music Perception and Cognition. Maintained SMPC website and world map of research centers in music perception and cognition.
2016 – 2020	Member, Board of Directors, Society for Music Perception and Cognition
2017	Expert Panelist on NIH/Kennedy Center Workshop on Music and the Brain. Discussed research and made recommendations to accelerate the study of music's effects on the brain and the implications for human health.
2013 – Present	Executive committee member, Northeast Music Cognition Group (NEMCOG). Organized three meetings to facilitate music cognition research in the northeast (see Conference Organization).

*Peer Reviewing: Editorial Board*

2021 – Present	Associate Editor, <i>Cognition</i>
2021 – Present	Associate Editor, <i>Attention, Perception and Psychophysics</i>
2020 – Present	Associate Editor, <i>Journal of the Acoustical Society of America</i>
2019 – Present	Editorial Board Member, <i>Empirical Musicology Research</i>
2018 – Present	Academic Editorial Board Member, <i>PLoS ONE</i>
2015 – Present	Guest Editor, <i>Music Perception</i>
2013 – Present	Reviewing Editor, <i>Frontiers in Psychology</i>

*Peer-Reviewing: Ad-hoc Reviewing in Journals*

*Advances in Cognitive Psychology, Attention, Perception and Psychophysics, Brain, Brain Sciences, Cerebral Cortex, Cognition, Cognitive Development, Cognitive Science, Consciousness and Cognition, ELife, European Journal of Neuroscience, Frontiers in Psychology, Frontiers in Human Neuroscience, 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, Proceedings of the National Academy of Sciences, Psychonomic Bulletin and Review, Psychological Science, Psychology of Music, Psychomusicology, Science Advances, Scientific Reports, Topics in Cognitive Science*

*Peer-Reviewing: Funding agencies*

Grammy Foundation, National Science Foundation, Templeton Foundation, Weston Foundation

*Peer-Reviewing: Publishing houses*

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

*Peer-Reviewing: Peer-reviewed conferences*

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

### Conference Organization

- 2022 Society for Music Perception and Cognition. Portland, OR. August 2022. Program Co-Chair with Daniel Shanahan.
- 2020 International Association for Music and Medicine (IAMM), Boston, May 2020. Member of Local Organizing Board (virtual conference due to COVID-19).  
Society for Neuroscience of Creativity (SfNC), Boston, March 2020. Member of Organizing Committee (postponed due to COVID-19).
- 2019 CAMD Symposium on Critical Creative Practice, April 2019. Co-organizer with Derek Curry and Cammy Brothers.  
Northeast Music Cognition Group, Harvard University, February 2019. Co-organizer with Lisa Wong.
- 2017 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.
- 2016 14th International Conference on Music Perception and Cognition, San Francisco, CA, July 2016. Scientific Advisory Board member.
- 2015 Northeast Music Cognition Group, Wesleyan University, April 2015.
- 2012 Northeast Music Cognition Group, Boston University, November 2012. Co-organizer with Jason Yust.  
International Conference on 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.
- 2011 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. Co-organizer with Michael Barnett and Andrea Spencer.
- 2009 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.

### Service to the Community/Public

#### *Select Media Coverage*

- 2023 Just One Thing. BBC. By Dr. Michael Mosley.  
Science News Explores. “When it comes to dance, it’s all about the bass.” By Alison Pearce Stevens. <https://www.snexplores.org/article/dance-music-bass-low-frequency>  
NU Sci Magazine. “Psyche Loui: The Hidden Harmonies of the Brain.” By Emma Tusuzian. January 12, 2023. [https://issuu.com/nuscience/docs/54\\_final\\_print\\_cropped](https://issuu.com/nuscience/docs/54_final_print_cropped)

- 2022 Salon.com. "The true story of the president who couldn't hear music." By Matthew Rozsa. December 24, 2022. <https://www.salon.com/2022/12/24/the-true-story-of-the-couldnt-hear-music/>
- On Point. WBUR and NPR. "The Healing Power of Music." By Meghna Chakrabarti. December 23, 2022. <https://www.wbur.org/onpoint/2022/12/23/the-healing-power-of-music>
- The Atlantic. "What Babies Hear When You Sing to Them." By Kathryn Hymes. September 2, 2022. <https://www.theatlantic.com/family/archive/2022/09/benefits-of-singing-to-babies/671324/>
- Psychology Today. "Findings from the Society for Music Perception and Cognition." August 28, 2022. <https://www.psychologytoday.com/us/blog/illusions-delusions-and-reality/202208/findings-the-society-music-perception-and-cognition>
- Good News Network. "Music Helps Reconnect Elderly Patients with their Memories in New Study." By Andy Corbley. August 2, 2022. <https://www.goodnewsnetwork.org/music-helps-reconnect-elderly-patients-with-their-memories-in-new-study/>
- News@Northeastern. "Can listening to the Beatles improve your memory? New research says music just might stir the brain." By Cody Mello-Klein. July 18, 2022. <https://news.northeastern.edu/2022/07/18/music-impact-memory-brain-pathways/>
- Washington Post. "Kids won't listen? Science says music might help." by Amy Patrel. February 15, 2022. <https://www.washingtonpost.com/parenting/2022/02/15/music-parenting-kids-attention/>
- Deutschlandfunk.de. "Der Ursprung von Musik - Laune der Natur oder knallharter Zweckfaktor?" by Christoph Dresser. January 6, 2022. <https://www.deutschlandfunk.de/forscher-streitfrage-ursprung-der-musik-100.html>
- 2021 Whiteribbon.ca. "Uncomposed: Music made to help men express emotions." by Cole Douglas. <https://www.whiteribbon.ca/uncomposed-364446.html> December 6, 2021.
- News @ Northeastern. "Why do you love (or hate) holiday music?" by Ian Thomsen. December 2, 2021. <https://news.northeastern.edu/2021/12/02/why-do-you-love-or-hate-holiday-music/>
- Parkinson's Life. "Investigating rhythm, dance and Parkinson's disease" by Johanna Stiefler Johnson. August 5, 2021. <https://parkinsonslife.eu/investigating-rhythm-dance-and-parkinsons-disease/>
- Music Tectonics podcast. "Music and the Mind: Psyche Loui on the Neuroscience of Creativity." by Trista Yaeger. May 6, 2021. <https://www.musictectonics.com/post/music-and-the-mind-psyche-loui-on-the-neuroscience-of-creativity>
- Gizmodo. "Why Does Music Make Us Feel Things?" by Daniel Kolitz. March 1, 2021.
- Experience Magazine. "Can ambient music make you more productive? This company thinks so." By Jim Sullivan. February 10, 2021. <https://expmag.com/2021/02/can-ambient-music-make-you-more-productive-this-company-thinks-so/>.

- Discover Magazine. "Where Did Music Come From? Here Are the Leading Theories." by Cody Cottier. January 29, 2021. <https://www.discovermagazine.com/planet-earth/where-did-music-come-from-here-are-the-leading-theories>
- 2020 News @ Northeastern. "The Songs We Share to Keep in Touch During the Covid-19 Pandemic" by Cam Sleeper. April 22, 2020.
- The Atlantic. "People Are Remembering What Music Is Really For" by Spencer Kornhaber. April 9, 2020.
- Psychology Today. "The Connection Between Music and Sociability" by Lydia Denworth. February 28, 2020.
- AAAS. "Music Benefits Human Health, Research Shows" by Adam Cohen. February 14, 2020. <https://www.aaas.org/news/music-benefits-human-health-research-shows>
- The Daily Free Press. "LASER bridges gap between art and science in interactive experience" by Amanda Cappelli. February 12, 2020.
- 2019 News @ Northeastern. "What People Who Don't Like Music Might Tell Us About Social Interaction" by Aria Bracci. August 8, 2019
- News @ Northeastern. "So You Love Music. It Cares for You, Too." by Aria Bracci. June 12, 2019
- BBC. "The remarkable plasticity of musicians' brains." by Jingnan Peng and William Park. June 4, 2019
- 2018 Smithsonian Channel. "Sacred Sites: Malta." (Season 2 Episode 4, September 2018)
- 2017 Neuroscience News, ViralNova, Iflscience, and other sources. "If Listening To Music Gives You Chills You May Have A Unique Brain." 2017-2018
- Radio Health Journal. "Tone-Deafness". March 12, 2017.
- 2016 Smithsonian Magazine. "What Happens in the Brain When Music Causes Chills?" by Jason Daley, June 20, 2016
- The Guardian. "Breakthrough in understanding the chills and thrills of musical rapture" by Ian Sample, June 17, 2016
- 2015 New York Magazine. "Music Gives Some People 'Skin Orgasms'" by Melissa Dahl, July 30, 2015
- "Overnight Live" interview on Cape Talk, a talk radio station in Cape Town, South Africa. December 12, 2015
- "The Moncrieff Show" interview on Newstalk Radio in Dublin, Ireland. July 27, 2015
- Jezebel.com. "Music Can Give You 'Skin Orgasms'" by Madeleine Davies. July 24, 2015
- BBC Future. "The strange phenomenon of musical 'skin orgasms'" by David Robson. July 22, 2015
- 2014 Boston Globe. "Quartet plays at the intersection of medicine and music." by Carolyn Johnson. September 20, 2014
- CBC Radio. Ideas. "The Ballad of Tin Ears." May 6, 2014. Broadcast by NPR and other news sources.
- Public Radio International. The Really Big Questions. "Why Does Music Move Us?" April 24, 2014. Broadcast by NPR and other news sources.

- NBC News. Today. "Sorry, Pharrell. Music doesn't make everyone happy, study shows." by Meghan Holohan. March 6, 2014.
- 2013 Science News. "The Tune Wreckers." by Bruce Bower. September 5, 2013.
- 2012 Maisonneuve. "Face the Music" by Tim Falconer. August 1, 2012.
- 2011 BBC Radio 4 Extra. "Am I Tone-Deaf?" September 9, 2011.  
New Scientist. "Pitch Perfect." February 26, 2011.
- 2010 Harvard Medicine. "Musical Medicine." by David Cameron, Spring 2010, Volume 83.  
Association for Women in Science. "The Science of Music."  
WGBH (Boston) interview. The Callie Crossley Show. March 15, 2010  
Boston Globe. "Symphony in J-flat." March 7, 2010.  
WNYC (NPR New York) interview. Soundcheck.
- 2009 CNN Health. "Freaky news about your brain may change your mind." August 25, 2009.  
New Scientist. "Tone-deaf people have fewer brain connections." August 19, 2009.  
Society for Neuroscience. "Neural Pathway Missing In Tone-deaf People." August 19, 2009. Broadcast by Science Daily and other news sources.  
Time.wellness. "What causes tone-deafness?" August 19, 2009.  
AP News Wire. "No karaoke for you! Bad wiring spells tone-deaf" August 19, 2009.  
Broadcast by New York Times, Discovery, Globe and Mail, Yahoo News, Scienceblog.com, and 150 + news sources.  
Science Daily. "Neural Pathway Missing in Tone-Deaf People." August 19, 2009.
- 2008 Berkeley Science Review. "The Sound of New Music." November 17, 2008.

### Professional Development

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