

Tenured Associate Professor
School of Digital Humanities and Social Sciences

Adjunct Professor
Graduate School of Culture Technology

KAIST
South Korea

Korea Advanced Institute of Science and Technology
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Yuseong, Daejeon, South Korea.
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EDUCATION

Ph. D. in Music Music Cognition Lab and Auditory Neuroscience Lab at Northwestern University, IL, USA Dissertation: 'Neural Representation of Musical Intervals in the Human Brainstem'	2011
Bachelor of Psychology, Seoul National University, Seoul, Korea Thesis: 'Rhythmic working memory and mental imagery ability'	2004
Master of Music in Musicology, Seoul National University, Seoul, Korea Thesis: 'Pitch processing in working memory'	2002
Bachelor of Music in Music Theory, Seoul National University, Seoul, Korea Thesis: 'Various internal references of absolute pitch possessors'	1998

EMPLOYMENT

Associate Professor, School of Humanities and Social Sciences, KAIST, Daejeon, Korea	2021-present
Assistant Professor, School of Humanities and Social Sciences, KAIST, Daejeon, Korea	2016-2021
Adjunct Professor, Graduate School of Culture Technology, KAIST, Daejeon, Korea	2018-present
BK Assistant Professor Graduate School of Convergence Science and Technology, Seoul National University, Seoul, Korea	2014-2016
Researcher, Western Music Research Institute, Seoul National University, Seoul, Korea	2010-2013
Instructor, Seoul National University, Seoul, Korea	2010-2013
Instructor, Ewha Womans University, Seoul, Korea	2011-2013
Instructor, Kyung Hee University, Seoul, Korea	2012-2013
Instructor, Northwestern University, Evanston, USA	2008

SERVICE

Professional Service

Associate Editor <i>Music Perception</i>	2024-present
Editorial Board <i>Journal of Audiology & Otology</i>	2015-present
<i>Music Theory Forum</i>	2015-present
<i>Journal of Music and Human Behavior</i>	2016-present
<i>Brain, Digital, & Learning</i>	2019-present
Ad-hoc reviewer <i>Frontiers in Human Neuroscience</i>	2021, 2022
<i>Psychomusicology: Music, Mind, and Brain</i>	2019
<i>Psychology of Music</i>	2019
<i>Music and Science</i>	2019, 2023
<i>Musicae Scientiae</i>	2014
<i>Journal of Mathematics and Music</i>	2014

Professional Affiliations

President: Korean Society for Music Perception and Cognition	2015-2019
President: Asia-pacific Society for Cognitive Sciences of Music	2017-2018
Vice President: Asia-pacific Society for Cognitive Sciences of Music	2014-2016
Local Advisory Committee for the 37 th World Congress of Audiology	2025-2026
DEI Chair for the 26 th International Society for Music Information Retrieval Conference	2025
Executive Committee for the Asia-pacific Society for Cognitive Sciences of Music	2014-present
Steering Committee for the International Musicological Society Regional Association for East Asia	2022-present
Program Committee for the International Musicological Society Regional Association for East Asia	2018-2022
Executive Committee for the Musicological Society of Korea	2021-present
Executive Committee for the Korea Society for Music Theory	2017-present
Program Committee for the 13 th Conference on Interdisciplinary Musicology	2022
Executive Committee for the International Conference on Music Perception and Cognition	2017-2018
Program Committee for the 3 rd Conference of the Australian Music & Psychology Society	2017
Program Committee for the 6 th Conference of Asia-pacific Society for Cognitive Sciences of Music	2017
Program Committee for the Musicological Society of Korea	2016
Scientific Advisory Board for the 14 th International Conference on Music Perception and Cognition	2016
Program Committee for the 2 nd Conference of the Australian Music & Psychology Society	2015
Technical Committee for the 2 nd International Conference on New Music Concepts	2015
Program Committee for the 24 th Symposium of the International Evoked Response Audiometry Study Group	2015
Program Committee for the Conference of the East Asian Regional Association of the International Musicological Society	2015
Technical Committee for the 1 st International Conference on New Music Concepts	2014
Organizing Committee for the 13 th International Conference on Music Perception and Cognition	2014

PUBLICATIONS

- Kim, Y., Loui, P., & Lee, K. M. (In press). Sketches for a cultural history of music cognition research. In Y. Kim, A. Schiavio, J. Vuoskoski (Eds.), *Music and the cognitive humanities: Interdisciplinary insight*. Oxford University Press.
- Kim, H., Nam, J., & Lee, K. M. (Accepted). Transferable audio lottery tickets: Gradient accumulation for extreme sparsity. Proceedings of the IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP).
- Kang, S., Woo, J., Lee, K. M., Seol, H. Y., Hong, S. H., & Moon, I. J. (2025). Feasibility of an objective approach using acoustic change complex for evaluating spectral resolution in individuals with normal hearing and hearing loss. *Journal of integrative neuroscience*, 24(3), 25911.
- Park, S. B., Kim, H. & Lee, K.M. (2024). Enhancing predictive models of music familiarity with EEG: Insights from fans and non-fans of K-pop group NCT127. Proceedings of 25th International Society for Music Information Retrieval Conference (ISMIR).
- Oh, E. J., Kim, H. & Lee, K. M. (2024). Which audio features can predict the dynamic musical emotions of both composers and listeners? Proceedings of 25th International Society for Music Information Retrieval Conference (ISMIR).
- Park, J., Choi, Y., & Lee, K. M. (2024). Research trends in virtual reality music concert technology: a systematic literature review. *IEEE Transactions on Visualization and Computer Graphics*.

- Han, J., Kang, S., Moon, J., **Lee, K. M.**, and Woo, J. (2024). Variation of heart rate during listening to music. *Journal of the Acoustical Society of Korea*, 43(5).
- Lee, K. M.**, Kang, S., Hong, S. H., & Moon, I. J. (2024). The effects of metrical hierarchy on the P1 component: A comparison between musicians and non-musicians. *Journal of Audiology and Otology*.
- Jacoby, N., Polak, R., Grahn, J., Cameron, D. J., **Lee, K. M.**, Godoy, R., ... Mcdermott, J. (2024). Universality and cross-cultural variation in mental representations of music revealed by global comparison of rhythm priors. *Nature Human Behaviour*.
- Oh, E., Park, J., Choi, Y., & **Lee, K. M.** (2023) Understanding musical flow during music listening based on empirical observations. *Music Theory Forum*, 30(2), 101-140.
- Kim, H.-W., **Lee, K. M.**, & Lee, Y. S. (2022). Sensorimotor and working memory systems jointly support development of perceptual rhythm processing. *Developmental Science*, e13261.
- Lee, K. M.** (2021). Interdisciplinary research of musicology, neuroscience, and cognitive sciences. *Journal of Korean Society for Noise and Vibration Engineering*, 31(3), 8-10.
- Moon, I. J., Kang, S., Boichenko, N., Hong, S. H., & **Lee, K. M.** (2020). Meter enhances the subcortical processing of speech sounds at a strong beat. *Scientific Reports*, 10(1), 1-8.
- Park, S. B. & **Lee, K. M.** (2020). A review of cognitive studies of groove. *Music Theory Forum*, 27(2), 161-180.
- Oh, E. & **Lee, K. M.** (2020). Possibility of music training to promote Korean language development. *Journal of Music and Theory*, 35, 79-107.
- Lee, K. M.** & Lee, Y. S. (2019). Beat synchronization development of Korean elementary school students. *Music Theory Forum*, 26(2), 251-270.
- Choi, J. E., Seok, J. M., Ahn, J., Ji, Y. S., **Lee, K. M.**, Hong, S. H., Choi, B. & Moon, I. J. (2018). Hidden hearing loss in patients with Charcot-Marie-Tooth disease type 1A. *Scientific Reports*, 8(1), 10335.
- Park, J. M., Chung, C. K., Kim, J. S., **Lee, K. M.**, Seol, J., & Yi, S. W. (2018). Musical expectations enhance auditory cortical processing in musicians: A magnetoencephalography study. *Neuroscience*, 369, 325-335.
- Lee, K. M.** (2017). Music cognition: investigations through the centuries. In R. Timmers & R. Ashley (Eds.). *Routledge Companion to Music Cognition*. New York: the Taylor & Francis Group.
- Lee, K. M.** (2017). The effect of music training on the language competence: neural evidence. *Journal of Music and Theory*, 28, 136-159.
- Lee, K. M.**, Barrett, K. C., Kim, Y., Lim, Y., Lee, K. (2015). Dance and music in *Gangnam Style*: how dance observation affects meter perception. *PloS one*, 10(8): e0134725. doi: 10.1371/journal.pone.0134725.
- Lee, K. M.**, Skoe, E., Kraus, N., & Ashley, R. (2015). Neural transformation of dissonant intervals in the auditory brainstem. *Music Perception*, 32(5), 445-459.
- Lee, K. M.**, Skoe, E., Kraus, N., & Ashley, R. (2014). Neural representation of musical intervals in the human brainstem. *Psychomusicology: Music, Mind, & Brain*, 24(3), 272-273.
- Lee, K. M.** (2013). What do neurophysiological studies on musical intervals tell us about sensory consonance? *Musica Humana*, 3(2), 209-230.
- Lee, K. M.** (2013). Musician's brainstem, In S. W. Yi (Ed.), *Music Perception and Cognition II* (pp. 294-310). Seoul: Eumaksekye Press.
- Lee, K. M.**, Skoe, E., Kraus, N., & Ashley, R. (2009). Selective subcortical enhancement of musical intervals in musicians. *Journal of Neuroscience*, 29(18), 5832-5840.
- Lee, K. M.** (2007). How do people listen to polyphonic music? Review: psychological studies on listening to polyphonic music. *Journal of Music and Theory*, 12, 9-19.
- Lee, K. M.** (2006). Non-musicians' implicit knowledge of harmonic processing. *Journal of Music and Theory*, 11, 175-189.
- Lee, K. M.** (2005). Absolute Pitch. In S. W. Yi (Ed.), *Music Perception and Cognition I* (pp. 31-54). Seoul: Eumaksekye Press.
- Lee, K. M.** (1998). Various internal references of absolute pitch possessors. In S. W. Yi (Ed.), *Music, Mind, and Science* (pp. 113-122). Seoul: Seoul National University Press.

Translations

- 'Absolute Pitch' (K. Miyazaki) (2013), In S. W. Yi (Ed.), *Music Perception and Cognition II* (pp. 69-86). Seoul: Eumaksekye Press.
- 'Background music effect on short-term memory' (P. Salame & A. Baddeley) (2002), *Nang-man Umak*, 14 (2), 171-191.
- 'Tonal bootstrapping: re-thinking the intervallic rivalry mode' (D. Butler) (2002), In S. W. Yi (Ed.), *Music, Mind, & Science* (pp. 108-120). Seoul: Eumaksekye Press.
- 'Absolute pitch and the P300: the effect of task difficulty and strategy' (L. Bischoff, R. Granot, & E. Donchin) (2002), In S. W. Yi (Ed.), *Music, Mind, & Science* (pp. 131-149). Seoul: Eumaksekye Press.
- 'Musicology as a political act' (P. V. Vohlman) (1999), *Nang-man Umak*, 11(4), 145-175.

PRESENTATIONS

International

- Lee, K. M. (2026). Listening beyond hearing: neural responses to emotions in music and implications for cochlear implant users and AI-generated music, 37th World Congress of Audiology, Seoul, Korea.
- Lee, K. M. (2025). Understanding the human experience of music to shape future technologies of MIR, 3rd Workshop on Human-Centric Music Information Research (HCMIR25), Keynote address, Daejeon, Korea.
- Oh, E. J. & Lee, K. M. (2024). Intermodal analysis of emotion inference: Examining shared processes in music and social contexts, Society for Music Perception and Cognition (SMPC), Banff, Canada.
- Kang, S., Moon, J., Han, J., Woo, J., & Lee, K. M. (2024). Electrophysiological approaches to evaluate music preference: Electroencephalography and Heart Rate, The Neurosciences and Music VIII conference. online.
- Han, J., Kang, S., Moon, J., Lee, K. M., & Woo, J. (2024). Evaluating Feasibility of Music Preference Prediction Based on Heart Rate, International Conference on Electronics, Information, and Communication (ICEIC), Taipei, Taiwan.
- Oh, E. & Lee, K. M. (August 2023) Musical pleasure revealed by electroencephalography theta oscillations: A systematic review, 17th International Conference on Music Perception and Cognition (ICMPC), Tokyo, Japan.
- Oh, E. & Lee, K. M. (August 2023) Effect of online music class on linguistic, cognitive, and musical abilities in Korean preschool children: A pilot study, 17th International Conference on Music Perception and Cognition (ICMPC), Tokyo, Japan.
- Kim, H. & Lee, K. M. (August 2023) A comparison of melody interpolation performed by human and artificial intelligence based on human similarity judgments, 17th International Conference on Music Perception and Cognition (ICMPC), Tokyo, Japan.
- Lee, A. Kim, J. Hong, Y. J., Lee, K., & Lee, K. M. (August 2023) Low motion smoothness of dance hinders auditory processing, 17th International Conference on Music Perception and Cognition (ICMPC), Tokyo, Japan.
- Lee, K. M. (October 2022) Music Cognition and IMSEA, East Asian Regional Association of the International Musicological Society, Jeonju, Korea.
- Lee, K. M., Kim, H., & Lee, Y. S. (August 2022) Beat synchronization and Korean reading fluency of elementary school children, Society for Music Perception and Cognition (SMPC), Portland, USA.
- Kim, H., Lee, K. M., & Lee, Y. S. (August 2022) Sensorimotor synchronization and auditory working memory jointly predict rhythm discrimination in children, Society for Music Perception and Cognition (SMPC), Portland, USA.
- Park, S. B. & Lee, K. M. (July 2021) Effects of microtiming deviations between two instruments on the groove experience, 16th International Conference on Music Perception and Cognition (ICMPC), Sheffield, UK.
- Lee, K. M. (December 2020). *Neural processing of musical rhythm*, 8th SNU Hearing and Balance Training Center International Symposium, Seoul, Korea.
- Lee, K. M. (August 2019). *Enhanced subcortical responses of musicians to sounds presented on metrically strong beats*, Society for Music Perception and Cognition, New York, USA.
- Jacoby, N., Polak, R., Grahn, J., Cameron, D., Fujii, S., Savage, P., Lee, K. M., Jakubowski, K., Clayton, M., Margulis,

- E., Wong, P., Undurraga, E., Godoy, R., Huanca, T., Thalwitzer, T., Muga, E., Kaya, E., Jure, L., Rocamora, M., Goldberg, D., Holzapfel, A., McDermott, J. (August 2019). *Universal constraints on rhythm revealed by large-scale cross-cultural comparisons of rhythm priors*, Society for Music Perception and Cognition, New York, USA.
- Lee, K. M. & Kang, S.** (August 2018). *Effects of meter on brainstem and cortical encoding of sound*, 15th International Conference on Music Perception and Cognition (ICMPC), Graz, Austria.
- Lee, K. M. & Kang, S.** (August 2017). *Metrical modulation of brain responses to sounds: neurophysiological findings*, Asia-Pacific Society for the Cognitive Sciences of Music, Kyoto, Japan.
- Lee, K. M., Lee, K., & Moon, I. J.** (July 2016). *Brainstem and cortical responses to sounds presented on the strong and weak beat*, 14th International Conference on Music Perception and Cognition (ICMPC), San Francisco, USA.
- Lim, Y., Rhyu, S., **Lee, K. M.**, Lee, K., Park, J., & Yi, S. W. (July 2016). *Does preliminary listening influence sight-reading performance?* 14th International Conference on Music Perception and Cognition (ICMPC), San Francisco, USA.
- Lee, K. M., Kim, Y., Lim, Y., & Lee, K.** (August 2015). *Cross-modal association of visual dance and meter*, Society for Music Perception and Cognition, Nashville, USA.
- Seong, D., Seo, J., **Lee, K. M.**, Choi, I., & Lee, K. (June 2015). *Effects of onset asynchrony on discrimination of successive pure tones*, A3 special interest workshop, JAIST, Japan.
- Lee, K. M.** (August 2014). *Does watching body movement affect rhythm perception?* 13th International Conference on Music Perception and Cognition, Seoul, Korea.
- Bae, D., Kim, J. S., **Lee, K. M.**, Chung, C. K., & Yi, S. W. (August 2014). *Musical training reflected in beta-band activity to meter*, 13th International Conference on Music Perception and Cognition, Seoul, Korea.
- Park, J. M., Yi, S. W., Chung, C. K., Kim, J. S., **Lee, K. M.**, & Seol, J. H. (August 2014). *Musical context changes neural responses to tonic triad*, 13th International Conference on Music Perception and Cognition, Seoul, Korea.
- Key, H. S., Yi, S. W., Chung, C. K., Kim, C. H., Kim, J. S., **Lee, K. M.**, & Seol, J. H. (October 2013). *Neural responses to tonality and atonality: how our brains perceive the difference*, East Asian Regional Association of the International Musicological Society, Taipei, Taiwan.
- Park, J. M., Yi, S. W., Chung, C. K., Kim, J. S., **Lee, K. M.**, & Seol, J. H. (October 2013). *Harmonic expectations influence chord perception in musicians*, East Asian Regional Association of the International Musicological Society, Taipei, Taiwan.
- Lee, K. M., Skoe, E., Ashley, R., Kraus, N.** (September 2011). *Neural foundations of harmony*, East Asian Regional Association of the International Musicological Society, Seoul, Korea.
- Lee, K. M.** (July 2011). *Brain encoding of two concurrent complex tones: neurophysiological findings*, Asia-Pacific Society for the Cognitive Sciences of Music, Beijing, China.
- Lee, K. M., Skoe, E., Kraus, N., & Ashley, R.** (August 2010). *Brainstem encoding of consonant and dissonant intervals*, 11th International Conference on Music Perception and Cognition, Seattle, USA.
- Lee, K. M., Skoe, E., Kraus, N., & Ashley, R.** (August 2008). *The effect of musical training on the subcortical processing of musical intervals*, 10th International Conference on Music Perception and Cognition, Sapporo, Japan.
- Lee, K. M., Skoe, E., Kraus, N., & Ashley, R.** (July 2008). *The neural encoding of musical intervals in the brainstem*, The Neurosciences and Music III: Disorders and Plasticity, Montreal, Canada.
- Lee, K. M.** (August 2007). *Effects of meter on timbre perception*, Society for Music Perception and Cognition, Montreal, Canada.
- Ashley, R. & **Lee, K. M.** (August 2006). *Dual task and psychophysiological measurement of mental workload during music processing*, poster presented, 9th International Conference on Music Perception and Cognition, Bologna, Italy.
- Lee, K. M.** (August 2005). *Musical priming: veridical and schematic expectations*, Asia-Pacific Society for the Cognitive Science of Music, Seoul, Korea.
- Lee, K. M.** (August 2004). *Rhythmic working memory and imagery ability*, 8th International Conference on Music Perception and Cognition, Evanston, USA.
- Lee, K. M.** (August 2002). *Does a separate pitch memory system exist?* 7th International Conference on Music Perception and Cognition, Sydney, Australia.
- Lee, K. M.** (August 1998). *Various internal references of absolute pitch possessors*, 5th International Conference on

Music Perception and Cognition, Seoul, Korea.

Korean Regional

- Lee, K. M.** (May 2024). *Cognitive science of music*, Korean Society for Cognitive Science, Seoul.
- Lee, K. M.** (December 2023). *Frequency following response to music*, Korean Society of EEG and Neurophysiology, Seoul.
- Lee, K. M.** (November 2022). *Music cognition-based therapeutic programs: Development and feasibility assessment*. 25th Conference of National Association of Korean Music Therapists, online.
- Oh, E. Park, J. Park, S. B., Kim, H., Kang, S., & **Lee, K. M.** (November 2022). *Music genres and characteristics suitable for the image of business type*. Korean Society for Noise and Vibration Engineering, Jeju.
- Park, S. B. & **Lee, K. M.** (November 2022). *Musical factors that influence the cognition of groove*. Korean Society for Music Perception and Cognition, online.
- Jeon, H. & **Lee, K. M.** (November 2021). *Musical imagery: When and where does it happen in our brain?* Korean Society for Music Perception and Cognition, online.
- Lee, K. M.** (November 2021). *Keynote: cognitive science of music*, Korean Society for Noise and Vibration Engineering, Jeju.
- Lee, K. M.** (November 2020). *Keynote: neuroscience of music*, the Acoustical Society of Korea, Seoul.
- Park, S. B. & **Lee, K. M.** (November 2020). *Influence of microtiming deviations between rhythm layers on the groove experience*, the Acoustical Society of Korea, Seoul.
- Oh, E. & **Lee, K. M.** (November 2020). *Review of rhythm programs for the enhancement of literacy skills*, the Acoustical Society of Korea, Seoul.
- Lee, K. M.** (August 2020). *The effect of musical meter on the subcortical processing of sounds*, Korean Society for Cognitive and Biological Psychology, Seoul.
- Lee, K. M.** (November 2019). *Neuroscience of rhythm and reading*, Korean Society for Music Perception and Cognition, Seoul.
- Lee, K. M.** (June 2019). *Convergence of music and neuroscience*, 27th Korea Internet Conference, Seoul.
- Lee, K. M.** (April 2019). *Neuroscience of rhythm*, The Musicological Society of Korea, Seoul.
- Lee, K. M.** (May 2016). *Subcortical encoding of complex sounds*, Korean Audiological Society, Seoul.
- Lee, K. M.** (May 2015). *Current research on cognitive sciences of music*, Korean Society for Music Perception and Cognition, Seoul.
- Lee, K. M.** (December 2012). *Psychological approach to music theory*, Korean Society for Music Theory & Korean Society for Music Perception and Cognition, Seoul.
- Lee, K. M.** (September 2010). *Neurophysiological studies on musical intervals*, Korean Society for Music, Seoul.
- Lee, K. M.** (September 2003). *Pitch processing in working memory*, Korean Society for Music Perception and Cognition, Seoul.

Invited Talks

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|----------|------|---|
| November | 2024 | <i>Music education and brain science</i> , Korean Society of Music Education Technology, Seoul, Korea. |
| June | 2024 | <i>Music and dementia</i> , Symposium, Wonju Yonsei Hospital, Korea. |
| May | 2024 | <i>Brain science of musical communication</i> , Korean Music Therapy Education Association, Seoul, Korea. |
| March | 2024 | <i>Music cognition and hearing science</i> , Symposium of Korean Audiological Society, Seoul, Korea. |
| August | 2023 | <i>Music and the brain</i> , Yamaha-KAIST Joint Workshop, Hamamatsu, Japan. |
| June | 2023 | <i>Rhythm and the brain</i> , KIAS-MINDS-ChosunCDS Joint Workshop, Seoul, Korea. |
| April | 2023 | <i>Music and metaverse</i> , School of Music, Seoul National University, Online. |

- November 2022 *Musicians' brain*, Extension College Seoul National University, Online.
- September 2022 *Neuroscience of rhythm*, Seoul National University Medical Research Center, Online.
- May 2022 *Music performance and AI*, School of Music, Seoul National University, Online.
- May 2022 *Cognitive science of music*, Seoul National University, Online.
- April 2022 *Neuroscience of music performance*, Yonsei University, Online.
- April 2022 *Cognitive science of rhythm*, Seoul National University, Online.
- November 2021 *Music and metaverse*, Post Metaverse Forum, GSCT, KAIST, Online.
- July 2021 *Music and the brain*, Hanyoung High School, Online.
- June 2021 *Cognitive neuroscience of music*, Dept. of Bio and Brain Engineering Seminar, KAIST, Daejeon, Korea.
- October 2020 *New musicality in the era of AI*, Hana High School, Online.
- June 2019 *How does music change the brain? AI + X Forum*, School of Computing, KAIST, Daejeon, Korea.
- September 2018 *Auditory brainstem response to musical sounds*, Dept. of Bio and Brain Engineering Seminar, KAIST, Daejeon, Korea.
- August 2018 *Music and brain plasticity*, Department of Otorhinolaryngology, Seoul National University Hospital, Seoul, Korea.
- July 2018 *Convergence of music and neuroscience*, Ministry of Science and ICT, Korea.
- June 2018 *When the brain meets music*, Ajou University, Suwon, Korea.
- May 2018 *Neuroscience of rhythm*, School of Music, Seoul National University, Seoul, Korea.
- May 2018 *Subcortical processing of musical sounds*, Sweden Korea Collaborative Symposium on 'Auditory processing in the mammalian brain', KAIST, Daejeon, Korea.
- May 2018 *Healthy ageing*, First Wednesday Forum, KAIST, Daejeon, Korea.
- November 2017 *Cognitive science of music*, Colloquium, Graduate School of Culture Technology, KAIST, Daejeon, Korea.
- September 2017 *Cognitive science of music*, Inha University, Incheon, Korea.
- October 2016 *Music and brain plasticity*, Department of Humanities and Social Sciences, KAIST Colloquium, Daejeon, Korea.
- October 2016 *Auditory brainstem responses to musical sounds*, NOVIC Seminar, KAIST, Daejeon, Korea.
- September 2016 *Working memory systems: why is it important in listening?* The 5th Samsung International Symposium on Hearing Aids, Samsung Medical Center, Seoul, Korea.
- June 2016 *Effects of musical training on the brain*, Korean Association for Piano Pedagogy, Seoul, Korea.
- April 2016 *Music for auditory cognitive training*, Korean Otological Society, Seoul, Korea.
- October 2015 *Music and brain*, Seminar, Korea University, Seoul, Korea
- April 2015 *Neurological impact of music education*, International Conference on New Vision of Arts Education in Creative Age, Seoul National University, Seoul, Korea.
- April 2015 *Music experience and brain plasticity*, Seminar, Department of Otorhinolaryngology, Seoul National University Hospital, Seoul, Korea.
- April 2015 *cABR to music*, Hallym Hearing Seminar, Hallym University, Seoul, Korea.
- January 2015 *ABR to complex sounds*, Seminar, Hearing Research Lab, Samsung Medical Center, Seoul, Korea.
- December 2014 *Auditory brainstem responses to speech and music*, Korean Evoked Response Audiometry Study Group, Seoul National University Hospital, Seoul, Korea.
- October 2014 *Development of music and language*, Colloquium, Seoul National University, Seoul, Korea.
- May 2014 *Psychophysiological approach to rhythm: body and language*, Korean Music Therapy Education Association, Ewha Womans University, Seoul, Korea.

March	2014	<i>Music training and brain plasticity</i> , Jeju University, Jeju, Korea.
February	2014	<i>Psychology of ear training</i> , Seminar, Korean Society for Music Theory, Yonsei University, Seoul, Korea.
December	2013	<i>Brainstem encoding of musical sounds</i> , Seminar, Department of Otorhinolaryngology, Seoul National University Hospital, Seoul, Korea.
November	2013	<i>Music and language: rhythmic processing</i> , Colloquium, Seoul National University, Seoul, Korea.
February	2013	<i>Music and language: brain studies</i> , Colloquium, Seoul National University, Seoul, Korea.
November	2012	<i>Brainstem encoding of sounds</i> , Symposium, Korean Music Therapy Education Association, Ewha Womans University, Seoul, Korea.
October	2012	<i>How does music change the human brain?</i> Seminar, Program in Digital Contents Convergence, Graduate School of Convergence Science and Technology, Seoul National University, Seoul, Korea.
April	2012	<i>Neural representation of musical intervals in the human brainstem</i> , Seminar, Department of Brain & Cognitive Sciences, Seoul National University, Seoul, Korea.
June	2011	<i>Brainstem responses of musicians</i> , Seminar, Department of Otorhinolaryngology, Seoul National University Hospital, Seoul, Korea.
May	2011	<i>Musician's brainstem</i> , Colloquium, Institute for Cognitive Science, Seoul National University, Seoul, Korea.

Grants

Current Research Support

NRF-2023R1A2C1004755 (3/1/2023-2/28/2026)

Title: Development of Electrophysiological Index for Evaluation of Musical Flow and its Application to Virtual Reality

Role: Principal Investigator

KAIST Project (2/1/2023-12/31/2023)

Title: Musicking in the Post-AI Era

Role: Principal Investigator

NRF Basic Research Lab (6/1/2023-2/28/2026)

Title: AI-Acoustics-Cognitive Science Convergence Lab for Streaming Content Creation and Immersive User Experience

Role: Co-investigator

Teaching

KAIST

Cognitive Science of Music (Lecture in English)	Graduate	2019-present
Understanding Music & the Brain (Lecture in English)	Undergraduate	2016-present
Understanding Music & Music History (Lecture in English)	Undergraduate	2016-present
20 th Century Music (Lecture in English)	Undergraduate	2016-2018

Seoul National University, Seoul, Korea

<i>Studies in Music and Neuroscience</i>	Graduate	2011-2015
<i>Studies in Psychology of Music</i>	Graduate	2010-2012, 2015
<i>Introduction to Acoustics of Music 1</i> (Lecture in English)	Undergraduate	2013-2014
<i>Introduction to Acoustics of Music 2</i> (Lecture in English)	Undergraduate	2013-2014

Ewha Womans University, Seoul, Korea

<i>Psychoacoustics</i>	Graduate	2012-2013
<i>Music Perception and Cognition</i>	Graduate	2011

Kyung Hee University, Seoul, Korea
Introduction to Music Psychology

Undergraduate

2012-2013

Northwestern University, IL, USA
Music and Mind

Undergraduate

2008

AWARDS and FELLOWSHIPS

KAIST Outstanding Research Innovation Prize

2022

KAIST Best Practice Course for Education Innovation

2020

KAIST Outstanding Research Innovation Prize

2020

KAIST Teaching Award

2019

Young Researcher's Travel Award, Society for Education, Music, and Psychology Research (SEMPRE)

2010

Neuroscience and Music III: scholarship, the Mariani Foundation

2008

Young Researcher's Travel Award, Society for Education, Music, and Psychology Research (SEMPRE)

2008

Graduate Assistantship, the Graduate School, Northwestern University

2005-2009

Graduate Fellowship, the Graduate School, Northwestern University

2004-2005