

Assistant Professor
School of Humanities and Social Sciences
KAIST
South Korea

Korea Advanced Institute of Science and Technology
Daehak-ro 291
Yuseong, Daejeon, South Korea.
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EDUCATION

Ph. D. in Music Cognition 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' Advisor: Suk Won Yi, Ph. D.	2002
Bachelor of Music in Music Theory, Seoul National University, Seoul, Korea Thesis: 'Various internal references of absolute pitch possessors'	1998

EMPLOYMENT

Assistant Professor, School of Humanities and Social Sciences, KAIST, Daejeon, Korea	2016-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

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

Ad-hoc reviewer

<i>Musicae Scientiae</i>	2014
<i>Journal of Mathematics and Music</i>	2014

Professional Affiliations

President: Korean Society for Music Perception and Cognition	2015-present
Vice President: Asia-pacific Society for Cognitive Sciences of Music	2014-present
Program Committee for the Musicological Society of Korea	2016-present
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

- 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.**, Lee, K., & Moon, I. J. (July 2016). Brainstem and cortical responses to sounds presented on the strong and weak beats", in Proceedings of International Conference on Music Perception and Cognition (ICMPC), accepted for publication.

- Lim, Y., Rhyu, S., **Lee, K. M.**, Lee, K., Park, J., & Yi, S. W. (July 2016). Does preliminary listening influence sight-reading performance?, in Proceedings of International Conference on Music Perception and Cognition (ICMPC), accepted for publication.
- 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 2016). *Subcortical encoding of complex sounds*, Korean Audiological Society 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

June	2016	<i>Effects of musical training on the brain</i> , Korean Association for Piano Pedagogy, Seoul, Korea.
April	2016	<i>Music for auditory cognitive training</i> , Korean Otological Society, Seoul, Korea.
April	2015	<i>Neurological impact of music education</i> , International Conference on New Vision of Arts Education in Creative Age, Seoul National University, Seoul, Korea.
April	2015	<i>Music experience and brain plasticity</i> , Seminar, Department of Otorhinolaryngology, Seoul National University Hospital, Seoul, Korea.
April	2015	<i>cABR to music</i> , Hallym Hearing Seminar, Hallym University, Seoul, Korea.
January	2015	<i>ABR to complex sounds</i> , Seminar, Hearing Research Lab, Samsung Medical Center, Seoul, Korea.
December	2014	<i>Auditory brainstem responses to speech and music</i> , Korean Evoked Response Audiometry Study Group, Seoul National University Hospital, Seoul, Korea.
October	2014	<i>Development of music and language</i> , Colloquium, Seoul National University, Seoul, Korea.
May	2014	<i>Psychophysiological approach to rhythm: body and language</i> , 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.

GRANT FUNDING

Title	Awarding Agency	Dates	Amount
1) KAIST Research Grant - Principal Investigator	KAIST	03/2016-12/2019	50,000,000 KRW
2) General Researcher Program for Female Scientists - Principal Investigator	Ministry of Science, ICT & Future Planning	11/2014-07/2017	138,245,000 KRW
3) Graduate Research Grant	University Research Grants Committee at Northwestern University	2007	3,000 USD

PROFESSIONAL EXPERIENCE

Teaching Experience

KAIST

Understanding Music & Music History	Undergraduate	2016
20 th Century Music	Undergraduate	2016

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

<i>Introduction to Music Psychology</i>	Undergraduate	2012-2013
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Northwestern University, IL, USA

<i>Music and Mind</i>	Undergraduate	2008
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Research Experience

Development of Musical Sounds for Tinnitus (Principal Investigator: Kyogu Lee) 2014-2017
(Mid-Career Researcher Program, Ministry of Science, ICT & Future Planning)
Seoul National University
Music and Audio Research Group
Participating Researcher

Neural Foundations of Music Theory (Principal Investigator: Suk Won Yi) 2010-2013
(Humanities and Social Sciences Basic Research Program for General Joint Research,
National Research Foundation of Korea)
Seoul National University
Participating Researcher

Project on Audio-visual Processing of Speech and Music 2008
Northwestern University
Auditory Neuroscience Lab
Research Assistant

Music Cognition Lab 2005-2008
Northwestern University
Research assistant of Professor Richard Ashley

AWARDS and FELLOWSHIPS

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