MAX PLANCK INSTITUTE
FOR EMPIRICAL AESTHETICS

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Research interests

- Computational models of musical structures and expressions for predictive modeling of neural and behavioral responses of affective experience
- Computational and experimental methodologies to understand structural and functional organizations of human brains

Positions

2021–Present Postdoctoral Researcher, Max Plank Institute for Empirical Aesthetics, Frankfurt am Main, Germany
- Supervisor: Dr. Daniela Sammler
- Projects: fMRI encoding of musical emotions and affective prosody

2018–2021 Postdoctoral research associate, Department of Psychology and Neuroscience, Duke University, Durham, NC, USA
- Supervisor: Dr. Tobias Overath
- Projects: MEG correlates of auditory percepts, fMRI encoding of natural speech and music

2017–2018 Postdoctoral research associate, Department of Psychiatry, Behavioral and Clinical Neuroscience Institute, University of Cambridge, Cambridge, UK
- Supervisor: Dr. Valerie Voon
- Projects: intracortical myelination and its association with impulsivity and alcohol consumption

Education and academic training

2012–2017 Doctor of natural science in psychology (Doctor rerum naturalium in Psychologie), International Max Planck Research School on Neuroscience of Communication (IMPRS-NeuroCom), Leipzig, Germany
- Advisors: Dr. Thomas R. Knösche and Dr. Erich Schröger
- Dissertation: “Myeloarchitecture and Intrinsic Functional Connectivity of Auditory Cortex in Musicians with Absolute Pitch” (*Summa cum laude*)

2010–2012 Research assistant, Department of Brain and Cognitive Sciences, Seoul National University, Seoul, South Korea.
- Supervisors: Dr. Moo K. Chung and Dr. Jun Soo Kwon
- Projects: Graph theoretical analysis on structural covariance in clinical populations, subcortical structure shape analysis

2008–2010 Master of science in cognitive science, Seoul National University, South Korea
- Advisor: Dr. C. K. Chung
- Thesis: “The effect of conditional probability of chord progression in Western music corpus on brain response: an MEG study”

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[1] My two-syllable first name reads /sɯŋgu/ (what is this?). Pragmatically, “SG” is also fine. :)

2000–2004 Bachelor of arts in economics and Bachelor of arts in psychology (dual majors), Yonsei University, South Korea

1996–1999 Specialized program in musical composition, Sun Hwa Arts High School, South Korea

Military service

2004–2007 Military officer, Republic of Korea Air Force (mandatory service, anti-aircraft artillery platoon, honorably discharged as a first lieutenant)

Honors and awards

2025–2026 MPG Diversity Excellence Fund, Max Planck Society, Munich, Germany
- Project: "EXPERIENCE — EXperimental PERformance series for Intercultural ENcounters & Collaborative Experience"

2023–2026 Academy Fellowship, Johanna Quandt Young Academy, Goethe University Frankfurt, Frankfurt am Main, Germany
- Project: "Neural representation of affective experiences evoked by music"

2021 Postdoc Research Grant Award, The Charles Lafitte Foundation Program for Research in Psychology & Neuroscience, Duke University, NC, USA
- Project: “Temporal Processing in Tonal and Atonal Music” (Amazon MTurk)

2017 Summa cum laude, PhD examination, Institute of Psychology. University of Leipzig, Germany

2014 Conference Scholarship, The 5th Conference for Neurosciences and Music, Mariani Foundation, Italy

2013–2016 Conference Scholarship, Research Academy Leipzig, University of Leipzig, Leipzig, Germany

2012–2016 Ph.D. Scholarship, International Max Planck Research School (IMPRS) on Neuroscience of Communication, Germany

2011 Excellent Oral Presentation Award, The Biannual Meeting of Korean Society of Human Brain Mapping, South Korea

2010 Best Poster Presentation Award, The Biannual Meeting of Korean Society of Human Brain Mapping, South Korea

2001–2004 B.A. Scholarship, Suam scholarship foundation, South Korea

Publications[2]

Auditory perception (N = 12)

2024 Kim S-G, De Martino F, Overath T. (2024, April). Linguistic modulation of the neural encoding of phonemes. *Cerebral Cortex*. doi:10.1093/cercor/bhae155

2022 Kim S-G. (2022, Sep). On the encoding of natural music in computational models and human brains. *Frontiers in Neuroscience 16: 928841*. doi:10.3389/fnins.2022.928841

Kim S-G*, Overath T*, Sedley W, Kumar S, Teki S, Kikuchi Y, Patterson R, Griffths TD. (2022, Jan). MEG correlates of temporal regularity relevant to pitch perception in human auditory cortex. *NeuroImage 249: 118879*. doi:10.1016/j.neuroimage.2022.118879 (*Both share first authorship).

2021 Kim S-G*, Leahy J*+, Wan J, Overath T. (2021, Jul). An Analytical Framework of Tonal and Rhythmic Hierarchy in Natural Music Using the Multivariate Temporal Response Function. *Frontiers in Neuroscience 15: 665767*. doi:10.3389/fnins.2021.665767. (*Both share first authorship; +Undergraduate first-author)

[2] Publication list as an Excel table: https://keeper.mpdl.mpg.de/f/63bc9a51af7c461ba21c/

2020 Kim S-G, Poeppel D, Overath T. (2020, Feb). Modulation change detection in human auditory cortex: Evidence for asymmetric, nonlinear edge detection. *European Journal of Neuroscience 52(2): 2889-2904*. doi:10.1111/ejn.14707

2019 Kim S-G, Mueller K., Lepsien J, Mildner T, Fritz TH. (2019, Dec). Brain networks underlying aesthetic appreciation as modulated by interaction of the spectral and temporal organisations of music. *Scientific Reports 9: 19446.* doi:10.1038/s41598-019-55781-9

2017 Kim S-G & Knösche TR. (2017, Oct). On the perceptual subprocess of absolute pitch. *Frontiers in Neuroscience 11: 557.* doi:10.3389/fnins.2017.00557

Kim S-G, Lepsien J, Fritz TH, Mildner T, Mueller K (2017, Jul). Dissonance encoding in human inferior colliculus covaries with individual differences in dislike of dissonant music. *Scientific Reports 7: 5726.* doi:10.1038/s41598-017-06105-2

Kim S-G & Knösche TR. (2017, May). Resting state functional connectivity of the ventral auditory pathway in musicians with absolute pitch. *Human Brain Mapping 38: 3899–3916*. doi:10.1002/hbm.23637 (final draft: https://bit.ly/2I4dbAh)

2016 Bianco R, Novembre G, Keller P, Kim S-G, Scharf F, Friederici A, Villringer A, Sammler D. (2016, Aug). Neural networks for harmonic structure in music perception and action. *Neuroimage 142: 454-464*. doi:10.1016/j.neuroimage.2016.08.025 (author's proof: https://goo.gl/ApfnbF)

Kim S-G & Knösche TR. (2016, May). Intracortical myelination in musicians with absolute pitch: quantitative morphometry using 7-T MRI. *Human Brain Mapping 37: 3486–3501*. doi:10.1002/hbm.23254

2011 Kim S-G, Kim JS, Chung CK. (2011, Feb). The effect of conditional probability of chord progression on brain response: an MEG study. *PLoS ONE* 6(2*): e17337*. doi:10.1371/journal.pone.0017337

Translational neuroimaging & clinical applications (N = 9)

2021 Weidacker K, Kim S-G, Nord CL, Rua C, Rodgers CT, Voon V. (2021, June). Avoiding monetary loss: a human habenula functional MRI ultra-high field study. *Cortex*. doi:10.1016/j.cortex.2021.05.013

Kim S-G*, Zhang C*, Li J, Zhang Y, Lv Q, Zeljic K, Gong H, Zhan S, Jin H, Sun B, Wang Z, Voon V. (2021, Jan). Anterior limb of the internal capsule tractography: relationship with capsulotomy outcomes in obsessive-compulsive disorder. *Journal of Neurology, Neurosurgery, and Psychiatry*. doi:10.1136/ jnnp-2020-323062 (*Both share first authorship)

2020 Kim S-G*, Weidacker K*, Callesen MB, Thomsen KR, Voon V. (2020, Nov). Insular and subcallosal cingulate myeloarchitecture and prediction of resilience of alcohol drinking behaviours in youth. *Psychological Medicine.* doi:10.1017/S0033291720003852 (*Both share first authorship)

2019 Zhang C, Kim S-G, Zhang YY, Li Y, Yan FH, Voon V, Sun BM. (2019, May). Habenula deep brain stimulation for refractory bipolar disorder. *Brain Stimulation*. doi:10.1016/j.brs.2019.05.010

Mandali A, Weidacker K, Kim S-G, Voon V. (2019, May). The ease and sureness of a decision: evidence accumulation of conflict and uncertainty. *Brain 142 (5): 1471–1482.* doi.org/10.1093/brain/awz013

Kim S-G*, Nord C*, Thomsen KR, Callesen MB, Kvamme TL, Jensen M, Pedersen MU, Voon V. (2019, Feb). The myeloarchitecture of impulsivity: premature responding in youth is associated with decreased myelination of ventral putamen. *Neuropsychopharmacology 44: 1216–1223*. doi: 10.1038/s41386-019-0343-6 (*Both share first authorship)

2017 Yoon YB, Shin W-G, Lee TY, Hur J-W, Cho KIK, Sohn WS, Kim S-G, Lee K-H, & Kwon JS. (2017, May). Brain structural networks associated with intelligence and visuomotor ability. *Scientific Reports 7: 2177*. doi:10.1038/s41598-017-02304-z

2015 Kim S-G, Kim SN, Jung WH, Jang JH, Kwon JS. (2015, Jun). Alterations of structural networks in patients with obsessive-compulsive disorder: A multimodal analysis of MRI and DTI using mCCA+jICA. *PLoS ONE 10(6): e0127118.* doi:10.1371/journal.pone.0127118

2013 Kim S-G, Jung WH, Kim SN, Jang JH, Kwon JS. (2013, Jul). Disparity between dorsal and ventral networks in patients with obsessive-compulsive disorder: Evidence revealed by graph theoretical analysis based on cortical thickness from MRI. *Frontiers in Human Neuroscience 7:302*. doi:10.3389/fnhum.2013.00302

Neuroimaging methods (N = 6)

2014 Kim S-G+, Stelzer J, Bazin P-L, Viehweger A, Knösche TR. (2014, May). Group-wise analysis on myelination profiles of cerebral cortex using the second eigenvector of Laplace-Beltrami operator. In *proceedings of the 11th IEEE International Symposium on Biomedical Imaging (ISBI), pp.1007-1010* (selected for +oral presentation). doi:10.1109/ISBI.2014.6868043

Chung MK, Kim S-G, Schaefer SM, van Reekum CM, Peschke-Scmitz L, Sutterer M, Davidson RJ. (2014, March) Improved statistical power with a sparse shape model in determining aging effect in hippocampus and amygdala. In *proceedings of SPIE 9034, Medical Imaging 2014: Image Processing, 90340Y.* doi:10.1117/12.2036497

2012 Kim S-G, Lee, H., Chung MK, Hanson JL, Avants BB, Gee JC, Davidson RJ, Pollak SD. (2012, May). Agreement between the white matter connectivity based on the tensor-based morphometry and the volumetric white matter parcellations based on diffusion tensor imaging. In *proceedings of the 9th IEEE International Symposium on Biomedical Imaging (ISBI)*, *pp. 42-45* (acceptance rate: 42%). doi:10.1109/ISBI.2012.6235479

Kim S-G, Chung MK+, Schaefer SM, van Reekum CM, Davidson RJ. (2012, Jan). Sparse shape representation using the Laplace-Beltrami eigenfunctions and its application to modeling subcortical structures. In *proceedings of IEEE workshop on Mathematical Methods in Biomedical Image Analysis (MMBIA), pp. 25-32* (selected for +**o**ral presentation; selection rate: 22%). doi:10.1109/MMBIA.2012.6164736

2011 Kim S-G+, Chung MK, Seo SH, Schaefer SM, van Reekum CM, Davidson RJ. (2011, Nov). Heat kernel smoothing via Laplace-Beltrami eigenfunctions and its application to subcortical structure modeling. In *Pacific-Rim Symposium on Image and Video Technology (PSIVT), Part 1, Lecture Notes in Computer Science (LNCS), 7087: pp. 36-57* (acceptance rate: 42%; selected for +**oral presentation**). doi:10.1007/978-3-642-25367-6_4

Kim S-G, Chung MK, Hanson JL, Avants BB, Gee JC, Davidson RJ, Pollak SD. (2011, Mar). Structural connectivity via the tensor-based morphometry. In *proceedings of the 8th IEEE International Symposium on Biomedical Imaging (ISBI), pp. 808-811.* (acceptance rate: 46%). doi:10.1109/ISBI.2011.5872528

Books (N = 1)

2017 Kim S-G. (2017, May). *Myeloarchitecture and Intrinsic Functional Connectivity of Auditory Cortex in Musicians with Absolute Pitch*. (Dissertation). In MPI series in human cognitive and brain sciences: 184

Preprints (N = 1)

2025 Kim S-G. (2025, Apr). Reverse Double-Dipping: When Data Dips You, Twice—Stimulus-Driven Information Leakage in Naturalistic Neuroimaging. *bioRxiv.* doi:10.1101/2025.04.01.646146

Conference presentations

2025 Kim S-G, Alonso-Jiménez P, Dogdanov D, Serra X, Sammler D. (2025, June). Creating an open-access music audio dataset for deep phenotyping of subjective experience of musical emotions. *The 18th International Conference on Music Perception and Cognition (ICMPC), São Paulo, Brazil.*

2024 Kim S-G, Overath T, Sammler D. (2024, Jun).Representational Gradients of Musical Emotions in the Cerebral Cortex Modeled by a Convolutional Neural Network. *The Neurosciences and Music — VIII, Helsinki, Finland.*

2023 Kim S-G, Alonso-Jiménez P, Dogdanov D, Serra X, Sammler D. (2023, Oct). Exploring Affective Experiences Evoked by Music: Study Plan for a Neurophysiological Deep Dataset "ManyMusic🎶". *CuttingGardens2023-Frankfurt*, Frankfurt, Germany.

Kim S-G, Overath T, Sammler D. (2023, Aug). Emotion-relevant Representations of Music Extracted by Convolutional Neural Networks Are Encoded in Medial Prefrontal Cortex. *The Joint Conference of the 17th International Conference on Music Perception and Cognition (ICMPC) and the 7th Conference of the Asia-Pacific Society for the Cognitive Sciences of Music (APSCOM), Tokyo, Japan*. (Selected for an oral presentation). doi:10.6084/m9.figshare.24085104

2022 Kim S-G, Overath T, Sammler D. (2022, Jun). Neural Encoding of Musical Emotions Evoked by Naturalistic Stimuli. *The Annual Meeting of the Organization for Human Brain Mapping (OHBM), Glasgow, UK.* doi:10.6084/m9.figshare.20141240.v1

2021 Mu H[+], Kim S-G, Overath T. (2021, Nov). Temporal response function of acoustic energy in fMRI time-series signals. *Advances and Perspectives in Auditory Neuroscience (APAN), Virtual*. ([+]Undergraduate first-author).

Yu Y[+], Kim S-G, Overath T. (2021, Nov). Processing temporal structure in music and speech. *Advances and Perspectives in Auditory Neuroscience (APAN), Virtual*. ([+]Undergraduate first-author).

Kim S-G, de Martino F, Overath T. (2021, Feb). Neural encoding of phonemes modulated by linguistic information. *44th Annual MidWinter Meeting, The Association for Research in Otolaryngology (ARO), Virtual.*

2020 Kim S-G, de Martino F, Overath T. (2020, Oct). Neural encoding of phonemes modulated by linguistic information. *Neuromatch Conference, Virtual*. https://youtu.be/6hmtrhIhbOc

Kim S-G, de Martino F, Overath T. (2020, Oct). Neural encoding of phonemes modulated by linguistic information. *Advances and Perspectives in Auditory Neuroscience (APAN), Virtual*.

2019 Kim S-G, Overath T, Sedley W, Kumar S, Teki S, Griffiths TD. (2019, Nov). MEG correlates of periodicity relevant to pitch perception in human auditory cortex. *The 49th Annual Meeting of Society for Neuroscience (SfN), Chicago, IL, USA.*

Kim S-G, Poeppel D, Overath T. (2019, Feb). Modulation Change Detection in Human Auditory Cortex: Evidence for Asymmetric, Nonlinear Edge Detection. *The 42nd Annual MidWinter Meeting of the Association for Research in Otolaryngology (ARO), Baltimore, MD, USA.*

2018 Kim S-G, Mak EFK, Voon V. (2018, Jun). Association between microarchitecture and functional topology of cerebral cortex and its behavioral relevance. *The 24th Annual Meeting of the Organization for Human Brain Mapping (OHBM), Singapore.*

2017 Kim S-G, Lepsien J, Fritz TH, Mueller K. (2017, Jun). Inferior colliculus activity correlates with subjective unpleasantness of dissonant music. *The 23rd Annual Meeting of the Organization for Human Brain Mapping (OHBM). Vancouver, Canada*.

2016 Kim S-G, Knösche TR. (2016, June). Intrinsic functional connectivity of the ventral auditory pathway correlates with the acuity of absolute pitch. *The 22nd Annual Meeting of the Organization for Human Brain Mapping (OHBM). Geneva, Swiss.*

Kim S-G, Fritz TH, Lepsien J, Mueller K. (2016, Jun). Dynamics of functional connectivity in human brains modulated by (un)pleasantness of music. *The 22nd Annual Meeting of the Organization for Human Brain Mapping (OHBM). Geneva, Swiss.*

2015 Kim S-G, Knösche TR. (2015, Jun). Intracortical myelination in musicians with absolute mapped using 7-T MRI. *The 21st Annual Meeting of the Organization for Human Brain Mapping (OHBM). Honolulu, HI, USA.*

2014 Kim S-G, Stelzer J, Schulze K, Viehweger A, Knösche TR. (2014, Jun). Auditory cortex in musicians with absolute pitch: Deformation-based shape analysis. *The 20th Annual Meeting of the Organization for Human Brain Mapping (OHBM). Hamburg, Germany.*

Kim S-G, Stelzer J, Schulze K, Viehweger A, Knösche TR. (2014, May). Local morphology of auditory cortex in musicians with absolute pitch. *The 5th conference for Neuroscience and Music, Dijon, France* (Selected for Conference Scholarship).

2013 Kim S-G, Stelzer J, Knösche TR. (2013, Mar). Toward myeloarchitectural analysis on musicians with absolute pitch. *Mind-Brain Symposium, Berlin School of Mind and Brain, Berlin, Germany.*

2012 Kim S-G, Chung MK, Jung WH, Jang JW, Kwon JS. (2012, Jan). Altered properties in the cortical thickness network of patients with obsessive-compulsive disorder. *The 18th Annual Meeting of the Organization for Human Brain Mapping (OHBM). Beijing, China.*

2011 Kim S-G, Chung MK, Jung WH, Jang JW, Kwon JS. (2011, Nov). Application of network analysis based on cortical thickness to obsessive-compulsive disorder patients. *The Biannual Meeting of South Korean Society of Human Brain Mapping (KHBM), Seoul, South Korea.* (selected for Excellent Oral Award).

Lee H, Kim S-G, Chung MK, Hanson JL, Avants BB, Gee JC, Davidson RJ, Pollak SD. (2011 Nov). Agreement between the white matter connectivity via tensor-based morphometry and the volumetric white matter parcellations. *The 41st Annual Meeting of Society for Neuroscience (SfN), Washington, DC, USA.* (Selected for oral presentation).

Kim S-G, Chung MK, Hanson JL, Avants BB, Gee JC, Davidson RJ, Pollak SD. (2011, Jun). White matter structural connectivity without diffusion tensor imaging. *The 17th Annual Meeting of the Organization for Human Brain Mapping (OHBM). Quebec, Canada.*

2010 Kim S-G, Chung MK, Hanson JL, Avants BB, Gee JC, Davidson RJ, Pollak SD. (2010, Nov). Structural connectivity via the tensor-based morphometry. *The Biannual Meeting of South Korean Society of Human Brain Mapping (KHBM). Seoul, South Korea.* (Selected for Best Poster Award).

Kim S-G, Kim BS, Kim JS, Chung CK. (2010, Mar). Differentiating the neural generator of ERAN and MMN: An MEG study. *The 17th International Conference on Biomagnetism, Dubrovnik, Croatia.*

Invited talks

Colloquia & symposia

2022 Kim S-G, Sammler D. (2022, Jul 19). Investigating the neural encoding of musical emotion using naturalistic stimuli and computational models. *Institutional Colloquium*, *Max Planck Institute for Empirical Aesthetics, Frankfurt, Germany.* doi:10.6084/m9.figshare.20347794.v1

2021 Kim S-G, Sammler D. (2021, Dec 9). Investigating the neural encoding of musical emotion using naturalistic stimuli. *Brain Imaging Center (BIC) Colloquium (organized by Dr. Ralf Deichmann), Goethe University, Frankfurt, Germany*. (undisclosed).

2019 Kim S-G, Micheal A, & Overath JT. (2019, Aug 27). Effects of spatially varying residual noise on task-based fMRI GLM. *BIAC (Brain Imaging & Analysis Center) User Meeting (organized by Dr. Allen W Song), Duke University, NC, USA.* (undisclosed).

2016 Kim S-G & Knösche TR. (2016, Sep 19). Auditory cortex in musicians with absolute pitch. *Institutional colloquium. Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany.* https://bit.ly/2kLbvjh

2015 Kim S-G & Knösche TR. (2015, Sep 14). Relaxometry of absolute pitch. *Mini-symposium: from T1 to myelin case-based discussions on analysis and interpretation (organized by Dr. Robert Trampel), Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany*. https://bit.ly/2lWZsPX

2010 Kim S-G, Kim JS, Chung CK. (2010, Sep 11). The effect of conditional probability of chord progression in Western music corpus on brain response: an MEG study. *Joint symposium in celebration of the 20th anniversary of the Korea-Germany Society for Music (organized by Dr. Suk-Won Yi), Seoul National University, Seoul, South Korea*. http://goo.gl/TPGyIX

Seminars & workshops

2023 Kim S-G. (2023, Jul 26). Investigating Neural Encoding of Musical Emotions Evoked by Naturalistic Stimuli and Computational Models. *Lab Meeting (Dr. Nathalie Gosselin), International Laboratory for Brain, Music and Sound Research, University of Montreal, Canada*.

2022 Kim S-G. (2022, Aug 12). Investigating Neural Encoding of Musical Emotions Evoked by Naturalistic Stimuli and Computational Models. *Lab Meeting (Dr. Thomas H. Fritz), Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany (virtual).*

2021 Kim S-G. (2021, May 11). Structural and functional organizations of pitch perception in human auditory cortex. *Joint Lab Meeting (Dr. Fred Dick and Dr. Maria Chait), University College London, London, UK (virtual).*

2020 Kim S-G. (2020, Jul 27). Predicting the neural encoding of musical structures. *Group Seminar (organized by Dr. Eunju Jeong), Department of Music & Science for Clinical Practice, College of Interdisciplinary Industrial Studies, Hanyang University, Seoul, South Korea*.

2020 Kim S-G. (2020, Jul 2). Predicting the neural encoding of musical structure. *Group Seminar (organized by Dr. Kyogu Lee), Music and acoustics research group, Graduate School for Convergence Science and Technology, Seoul National University, Suwon, South Korea.* https://bit.ly/3exrQPS

2016 Kim S-G. (2016, Feb 15). In-vivo intracortical myelination mapping: quantitative morphometry. *Group seminar (organized by Dr. Jun Soo Kwon). Seoul National University Hospital, South Korea.* https://bit.ly/3bQGoZn

2015 Kim S-G & Knösche TR. (2015, Aug 24). Intracortical myelination in musicians with absolute pitch. (*The Melodic Mind: an interdisciplinary workshop on music and language (organized by Dr. Daniela Sammler), Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany.* http://goo.gl/YLcRr8

2011 Kim S-G, Chung MK, Hanson JL, Avants BB, Gee JC, Davidson RJ, Pollak SD. (2011, Dec 2). White matter connectivity without DTI. *Workshop on Diffusion Tensor Imaging and Brain Connectivity (organized by Dr. Moo K Chung), Seoul National University, Seoul, South Korea*. https://bit.ly/2lVngEc

Kim S-G, Chung MK, Schaefer SM, van Reekum C, Davidson RJ. (2011, Sep 27). Sparse shape representation using the Laplace-Beltrami eigenfunctions and its application to correlating functional signal to subcortical structures. *Workshop on mathematical methods in medical image analysis (organized by Dr. Moo K. Chung), Seoul National University, Seoul, South Korea*. http://goo.gl/sTuutv

Kim S-G, Chung MK, Schaefer SM, van Reekum C, Davidson RJ. (2011, Jul 29). Correlating EEG to anatomy in hippocampus and amygdala. *Seminar on Brain Network Modeling (organized by Moo K Chung)*, *Seoul National University Hospital, Seoul, South Korea*. https://bit.ly/2lPimsj

Teaching & mentoring

University courses

2024-2025 "Seminar: Music and Brain", Goethe University Frankfurt, Frankfurt am Main, Germany. (Co-teaching with Dr. Daniela Sammler).

2022–2024 "Methods in Empirical Musicology", a practical course (seminar and hands-on) for undergraduate and graduate students majoring in Music Informatics, Karlsruhe University of Music (Hochschule für Musik), Karlsruhe, Germany (online).

Lectures & tutorials

2024 Kim S-G. (2024, Dec 5). Workshop: Music, Brain, and Emotions: An Engaging Self-Experiment. *Max Planck School of Cognition--Cognition Academy, Berlin, Germany*. https://github.com/seunggookim/mpscog-ca25-mbe

2024 Kim S-G. (2024, Sep 7). Tutorial: Linearized Encoding Analysis. *Korean Society for Music Perception and Cognition (KSMPC) Summer School, South Korea (online)*. https://github.com/seunggookim/ksmpc-ss24-sess3

2023 Kim S-G. (2023, Feb 7). Encoding Analysis of fMRI Data. *Data Analysis Lecture Series, Brain Imaging Centre, the University Hospital Frankfurt, Frankfurt am Main, Germany*. https://s.gwdg.de/TJdctg

2021 Kim S-G. (2021, Oct 27). Primer for Linearized Encoding Analysis. *NCML lab meeting, MPI-EA, Frankfurt am Main, Germany*. https://s.gwdg.de/wp6LTH

2020 Kim S-G. (2020, April 24). Temporal Response Function as Ridge Regression to Estimate Finite Impulse Response. Overath lab meeting. *Duke University, Durham, NC, USA*. https://cli.re/QnJaXw

Kim S-G. (2020, Feb 2). Introduction to Ridge Regression. Overath lab meeting. *Duke University, Durham, NC, USA*. https://cli.re/5Pa3KZ

2019 Kim S-G. (2019, Dec 5). Robust detrending and inpainting for M/EEG data. *Overath-Woldorff joint lab meeting. Duke University, Durham, NC, USA*. https://bit.ly/2PEd6E5

2017 Kim S-G. (2017, Jun 8). Improving coregistration by skulls-tripping of EPI images. *Method Club (organized by Dr. Karsten Mueller). Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany.* https://bit.ly/2mimWiW

2015 Kim S-G. (2015, Oct 15). Assessment of “denoising” (motion artifacts removal) on resting state fMRI data. *Method Club (organized by Dr. Karsten Mueller). Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany.* https://bit.ly/2kO0eP5

2010 Kim S-G, Kim JS, Chung CK. (2010, Jun 9). Guest Lecture: The effect of conditional probability of chord progression in Western music corpus on brain response: an MEG study. *Introduction to Music Psychology (taught by Dr. Suk-Won Yi), Seoul National University, Seoul, South Korea*. https://bit.ly/2mkdqvJ

Mentoring

2023 Till Bechtloff. (undergraduate intern at NCML, MPI for Empirical Aesthetics, Frankfurt)
- Project: ManyMusic (JQYA funded)
- Tasks: Development of GUI for the online behavioral experiment using JsPsych

2022 Zoë Bolz. (undergraduate intern at NCML, MPI for Empirical Aesthetics, Frankfurt)
- Project: Linguistic knowledge and cultural exposure on prosody perception
- Tasks: behavioral data analysis with R

2021–2022 Han (Medy) Mu. (undergraduate researcher at O-lab, Duke University)
- Project: Neural encoding of music in fMRI data
- Tasks: MATLAB & Bash for fMRI data processing and linearized encoding analysis

2021–2022 Ying Yu. (undergraduate researcher at O-lab, Duke University, NC)
- Project: Temporal structures in tonal and atonal music: online behavioral experiment
- Tasks: MATLAB, JavaScript, HTML for Amazon MTurk experiment data acquisition & analysis

2019–2021 Jasmine Leahy. (undergraduate researcher at O-lab, Duke University, NC)
- Project: Neural encoding of musical features in EEG data
- Tasks: MATLAB scripting for EEG experiments and data analysis
- B.Sc. thesis (graduation with distinction): “*Cortical Encoding of Tonal and Rhythmic Hierarchy*

in Real and Imagined Music Using the Multivariate Temporal Response Function"
- Current position: M.D. student at the Icahn School of Medicine at Mount Sinai, NY, USA

2018–2020 Jie Wan. (graduate researcher at O-lab, Duke University, NC)
- Project: Cortical entrainment to temporal structures in natural speech
- Tasks: MATLAB scripting, EEG data analysis, encoding analysis (temporal response function modeling), statistical tests, data visualization
- Current position: Ph.D. student at University of California – Irvine, CA, USA

Pedagogical training

2021 Entering Mentoring (March to April, 4 weeks; virtual: Google Classroom).
- Topics: Communication and Feedback; Diversity, Equity, and Inclusion
- Organizers: Dr. Branda Yang, Ms. Eva Gjorgieva (Duke Institute for Brain Sciences, NC, USA)

Service to profession

Editorial board

2025–Present Peer Community in Neuroscience
- Current Role: Recommender

2025–Present PLOS One
- Current Role: Academic Editor

2024–Present Music Perception
- Current Role: Consulting Editor

2022–Present Frontiers in Neuroscience, specialty section: Auditory Cognitive Neuroscience
- Current Role: Review Editor

Guest editor (in an alphabetical order; with a number of handled submissions in parentheses)

2023 PNAS (1)

Ad hoc reviewer for journals (in an alphabetical order; with a number of reviews in parentheses)

2014–Present Brain and Behavior (2), Brain Connectivity (3), Brain Research (6), Brain Structure and Function (1), Cognitive Affective Behavioral Neuroscience (1), Cognitive Neurodynamics (2), eLife (1), Frontiers in Aging Neuroscience (3), Frontiers in Computational Neuroscience (1), Frontiers in Neuroscience (2), Frontiers in Psychology (4), Heliyon (1), Human Brain Mapping (1), International Journal of Psychophysiology (6), Journal of Integrative Neuroscience (3), Journal of Neuroscience (1), Journal of New Music Research (1), Journal of Physiological Anthropology (1), NeuroImage (5), Neuropsychologia (1), Neuroscience Letters (1), Perception (1), PLOS One (2), Psychophysiology (2), Scientific Data (1), Scientific Reports (2)

Advisory board

2020–2021 Neuroimaging advisory committee, Duke Institute for Brain Sciences (DIBS), NC, USA
- Role: technical advice to neuroimaging researchers at Duke University

Member

2023-Present International Conference on Music Perception and Cognition (https://icmpc.org/)
- Abstract reviewer (2023–Present), Session chair (2023–Present)

2012–Present Organization for Human Brain Mapping (https://www.humanbrainmapping.org/)
- Abstract reviewer (2021–Present)

2011–Present Society for Neuroscience (https://www.sfn.org/)

Open source projects

GitHub repo Linearized Encoding Analysis. https://github.com/seunggookim/lea
Cortical surface visualization. https://github.com/solleo/surfviz
Automatic processing & visualization using SPM12. https://github.com/solleo/myspm
ANTs parallelization on Condor. https://github.com/solleo/ANTs-Condor

Referees

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Valerie Voon, M.D., Ph.D., Prof.

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Web	http://www.neuroimage.net/