Lauren K. Fink

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Curriculum Vitae – June 2024

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EDUCATION AND DEGREES

2014 - 2019	Ph.D. & M.Sc. in Neuroscience, University of California, Davis (UCD), CA, USA
2013 - 2014	M.Phil. in Music Studies (Music & Science), University of Cambridge, England, UK
2009 - 2013	B.M. in Percussion Performance (major) and Psychology (minor), University of Cincinnati College Conservatory of Music, Ohio, USA, <i>summa cum laude</i>

RESEARCH CAREER

01/2023 – **Assistant Professor** in the Dept. of Psychology, Neuroscience, & Behavior, Faculty of Science, McMaster University, Ontario, Canada.

Member of:

McMaster Institute for Music & the Mind (Faculty of Science)

School of Computational Science & Engineering (Faculty of Science)

Neuroscience (Faculty of Health Sciences)

Centre for Advanced Research in Experimental and Applied Linguistics (Faculty of Humanities)

01/2020 - 12/2022

Postdoctoral Researcher in the Music Dept., Max Planck Institute for Empirical Aesthetics, Frankfurt am Main, Germany & the Max Planck – NYU Center for Language, Music & Emotion.

09/2015 – 10/2019	Researcher in the Janata Lab, Center for Mind & Brain, at the University of California, Davis: "Predicting sensorimotor synchronization and attention to music using a linear oscillator model, eye-tracking, and electroencephalography," supervised by Prof. Dr. Petr Janata. ProQuest full text record: 13902885.
08/2017	Visiting Researcher in the Max-Planck-Institute for Empirical Aesthetics, Frankfurt, Germany: "Comparing Pupil Labs and SMI mobile eye-tracking glasses in the concert hall," directed by Dr. Elke Lange.
08/2016	Visiting Researcher in the Swartz Center for Computational Neuroscience at the University of California, San Diego: "Simultaneous eye-tracking and electroencephalography during an auditory deviance detection task," supervised by Dr. John Iversen.
07/2016 - 08/2016	Visiting Researcher in the Center for Computer Research in Music and Acoustics, Stanford University: "Fostering Empathy and Improving Focus Through the Groove Enhancement Machine: Facilitating Sensorimotor Coordination and Cooperation Among Groups of Individuals," directed by Prof. Dr. Petr Janata and Prof. Dr. Jonathan Berger.
03/2015 - 06/2015	Visiting Researcher in the Geng Lab, Center for Mind & Brain, University of California, Davis: "Characterization of eyeblinks and pupil diameter during an auditory deviance detection task," directed by Prof. Dr. Joy Geng.
01/2015 - 03/2015	Visiting Researcher in the Dynamic Memory Lab, Center for Neuroscience, University of California: "Goal relevance in temporal contexts: the role of the fronto-striatal-hippocampal circuit," supervised by Prof. Dr. Charan Ranganath and Dr. Matthias Gruber.
09/2014 – 12/2014	Visiting Researcher in the Janata Lab, Center for Mind & Brain, University of California, Davis: "Attention mapping via amplitude modulated sounds," supervised by Prof. Dr. Petr Janata.
10/2013 - 08/2014	Researcher in the Centre for Music & Science, University of Cambridge: "Music modulates eyeblinks: An examination of temporal coordination," supervised by Prof. Dr. Ian Cross. DOI: https://doi.org/10.13140/RG.2.2.10645.65766
04/2011 - 05/2013	Intern at the Archives & Rare Books Library, University of Cincinnati http://libapps.libraries.uc.edu/liblog/?s=lauren+fink

PUBLICATIONS

- * indicates co-first authorship, or co-last authorship (equal contribution)
- + indicates student mentee
- ⁺Czepiel, A., Fink, L., Seibert, C., Scharinger, M., Kotz, S. (2023). Aesthetic and physiological effects of naturalistic multimodal music listening. Cognition 239, 105537. https://doi.org/10.1016/j.cognition.2023.105537
- *Saxena, S., *Fink, L., *Lange, E. (2023). Deep learning models for webcam eye-tracking in online experiments. Behavior Research Methods. https://doi.org/10.3758/s13428-023-02190-6

- Lange, E., & Fink, L. (2023). Eye-blinking, musical processing, and subjective states A methods account. Psychophysiology, 00(e14350). https://doi.org/10.1111/psyp.14350
- Fink, L., Simola, J., Tavano, A., Lange, E., Wallot, S., & Laeng, B. (2023). From pre-processing to advanced dynamic modeling of pupil data. Behavior Research Methods. https://doi.org/10.3758/s13428-023-02098-1
- Coretta, S., Casillas, J.V., [...] Fink, L., [...] & Timo B. Roettger. (2023). Multidimensional signals and analytic flexibility: Estimating degrees of freedom in human speech analyses. Advances in Methods and Practices in Psychological Science, 6(3). https://doi.org/10.1177/25152459231162567
- Fink, L., Alexander, P. & Janata, P. (2022). The Groove Enhancement Machine (GEM): A multiperson adaptive metronome to manipulate sensorimotor synchronization and subjective enjoyment. Frontiers in Human Neuroscience 16:916551. https://doi.org/10.3389/fnhum.2022.916551
- Wittstock, S., Sperber, L., Kirk, G., McCarty, K., de Sola-Smith, K., Wade, J., Simon, M., Fink, L. (2022). Making what we know explicit: Perspectives from graduate writing consultants on supporting graduate writers. Praxis: A Writing Center Journal, 19(2). https://www.praxisuwc.com/192-wittstock-et-al
- ⁺Czepiel, A., **Fink, L.K.**, Fink, L.T., Wald-Fuhrmann, M., Tröndle, M., & Merrill, J. (2021). Synchrony in the periphery: inter-subject correlation of physiological responses during live music concerts. Scientific Reports 11, 22457. https://doi.org/10.1038/s41598-021-00492-3
- *Fink, L., *Warrenburg, L. A., Howlin, C., Randall, W. M., Hansen, N. C., & Wald-Fuhrmann, M. (2021). Viral Tunes: Changes in musical behaviours and interest in coronamusic predict socio-emotional coping during COVID-19 lockdown. Humanities & Social Sciences Communications, 8(120). https://doi.org/10.1057/s41599-021-00858-y
- *Durojaye, C., *Fink, L., Roeske, T., Wald-Fuhrmann, M. & Larrouy-Maestri, P. (2021). Perception of Nigerian talking drum performances as speech-like vs. music-like: the role of familiarity and acoustic cues. Frontiers in Psychology 12:652673. https://doi.org/10.3389/fpsyg.2021.652673
 - Public outreach version (for ~ 10 -year-olds):
 - Fink, L., Durojaye, C., Roeske, T., Wald-Fuhrmann, M. & Larrouy-Maestri, P. (2022). Drums help us understand how we process speech and music. Frontiers for Young Minds, 10, 755390. https://doi.org/10.3389/frym.2022.755390
- Sharma, N., Krishnamohan, V., Ganapathy, S., Gangopadhayay, A. & Fink, L. (2020). Acoustic and linguistic features influence talker change detection. JASA Express Letters 147(5). https://doi.org/10.1121/10.0002462
- Fink, L., Lange, E., & Groner, R. (2019). The application of eye-tracking in music research. *Journal* of Eye Movement Research, 11(2):1. https://doi.org/10.16910/jemr.11.2.1
- Fink, L., Hurley, B., Geng, J. & Janata, P. (2018). A linear oscillator model predicts dynamic temporal attention and pupillary entrainment to rhythmic musical patterns. Journal of Eye Movement Research, 11(2):12. https://doi.org/10.16910/jemr.11.2.12
- Hurley, B., Fink, L., & Janata, P. (2018). Mapping the dynamic allocation of attention in musical patterns. Journal of Experimental Psychology: Human Perception & Performance, 44(11), 1694-1711. https://doi.org/10.1037/xhp0000563

- Fink, L. (2017). Chance operations in neuroscience. In Lane, J. and L. Fink (Eds.), Allen Otte Folio, pp. 17-20. https://mediapressmusic.com/allen-otte-folio-various/
- Fink, L. (2016). The Greatest. Pulse Special Issue of Ethnomusicology Review/Sounding Board. https://ethnomusicologyreview.ucla.edu/content/greatest

Book chapters

Fink, L. (2024, in prep). Data Visualization. Oxford Handbook of Systematic Empirical Research in the Arts, eds. Knoop, C., Wald-Fuhrmann, M.

Conference papers (peer-reviewed)

- Fink, L. (2023). Eye movement patterns when playing from memory: Examining consistency across repeated performances and the relationship between eyes and audio. Proceedings of the 17th International Conference on Music Perception and Cognition, Aug. 24-28, Tokyo, Japan. psyarxiv.com/tecdv
- *Saxena, S., Lange, E. & Fink, L. (2022). Towards efficient calibration for webcam eye-tracking in online experiments. In 2022 Symposium on Eye Tracking Research and Applications (ETRA '22), June 08–11, 2022, Seattle, WA, USA. https://doi.org/10.1145/3517031.3529645
- Fink, L. (2021). Computational models of temporal expectations. Proceedings of the Future Directions of Music Cognition International Conference, pp. 208-213. https://doi.org/10.18061/FDMC.2021.0041
- Sharma, N., Krishnamohan, V., Ganapathy, S., Gangopadhayay, A. & Fink, L. (2020). On the impact of language familiarity in talker change detection. Proceedings of the 2020 IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP), Barcelona, Spain, pp. 6249 – 6253. https://doi.org/10.1109/ICASSP40776.2020.9054294

Submitted manuscripts

- ⁺Czepiel, A., Fink, L., Scharinger, M., Seibert, C., Wald-Fuhrmann, M. & Kotz, S. (2023, in revision). Audio-visual concert performances synchronize an audience's heart rates. Preprint on BioRxiv: https://www.biorxiv.org/content/10.1101/2024.04.10.588486v1
- Fink, L., Fiehn, H. * & Wald-Fuhrmann, M. (2023, in revision). The role of audiovisual congruence in perception and aesthetic appreciation of contemporary music and visual art. Preregistration: osf.io/hjgc5 Preprint on PsyArxiv: https://osf.io/preprints/psyarxiv/76c32
- Fink, L., Hörster, M., Poeppel, D., Wald-Fuhrmann, M., & Larrouy-Maestri, P. (2023, in revision). Features underlying speech versus music as categories of auditory experience. Preprint on PsyArxiv: https://psyarxiv.com/2635u
- Tavano, A., Blohm, S., Knoop, C.A., Muralikrishnan, R., Fink, L., Scharinger, M., Wagner, V., Thiele, D., Ghitza, O., Ding, N., Menninghaus, W., Poeppel, D. (2021, in revision). Neural harmonics of syntactic structure. Preprint on BioRxiv: https://www.biorxiv.org/content/10.1101/2020.04.08.031575v3

EDITED VOLUMES

- Fink, L. & Lange, E., Eds. (2018). Special Issue on Music & Eye-Tracking. Journal of Eye Movement Research. Vol. 11(2). https://bop.unibe.ch/JEMR/issue/view/793
- Fink, L., Ed. (2017). Explorations: The UC Davis Undergraduate Research Journal (vol. 19). The Regents of the University of California. http://explorations.ucdavis.edu/2017/index.html
- Lane, J. & L. Fink, Eds. (2017). Allen Otte Folio. A collection of percussion pieces, distributed by Media Press Inc. https://mediapressmusic.com/allen-otte-folio-various/

GRANTS / SCHOLARSHIPS / FELLOWSHIPS

2024.26	
2024-26	Canadian Foundation for Innovation, John R Evans Leaders Fund & Ontario
	Research Fund Small Infrastructure Fund. "The role of brain-viscera coupling in
2022 27	shaping subjective experience and social interaction." Role: PI. (\$500,000 CAD)
2023-27	Natural Sciences and Engineering Research Council of Canada, Discovery Grant.
	"Mobile eye-tracking in the concert hall: Using ocular measures to index
	spatiotemporal attention and augment audience engagement." Role: PI. (\$257,500 CAD)
2023-27	Canadian Institutes of Health Research. "A novel approach to assess listening effort
2023-27	in older adults based on eye movements." PI: Björn Herrmann. Role: Co-PI.
	(\$302,167 USD)
2017-19	ARCS Foundation Achievement Research Award for College Scientists (\$22,000
2017 17	USD)
2016-19	Lead Graduate Writing Fellowship, UCD (\$11,000 USD)
2016-19	University Writing Program Travel Award, UCD (\$1,900 USD)
2018	Graduate Student Association Special Projects Award (\$700 USD)
2017-18	Graduate Student Association Travel Award (\$1000 USD)
2018	Lesbians Who Tech Summit Scholarship (\$250 USD)
2017	UC Davis Diversity Inclusion and Innovation Grant. "SOMA: Seminar Outreach for
	Minority Advocacy." PI: Lauren Fink (\$5,000 USD)
2016-17	UC Davis & Humanities Graduate Research Award (\$3,000 USD)
2016	University of California Music Experience Research Community Initiative: Research
	Exchange Grant – UC San Diego (\$3,500 USD)
2016	Ling-Lie Chau Student Award for Brain Research, UCD (\$1,000 USD)
2015	University of California Music Experience Research Community Initiative
	Symposium Travel Award (\$1,200 USD)
2015-16	Graduate Writing Fellowship, UCD (\$3,000 USD)
2014-15	Neuroscience Graduate Group Fellowship, UCD (\$28,680 USD)
2014	William Barclay Squire Fund/Wolfson College Travel Grant, U. Cambridge (£600
	GBP)
2013-14	Cambridge Overseas Trust, Wolfson Cambridge Scholarship, U. Cambridge (£7000
2042.42	GBP)
2012-13	U. of Cincinnati Marshall Scholarship Finalist
2012-13	Undergraduate Research Council Grant, U. Cincinnati (\$3,000 USD)
2012	Summer Undergraduate Research Fellowship, U. Cincinnati (\$4,000 USD)
2011	Summer Undergraduate Mentored Research Grant, U. Cincinnati (\$3,000 USD)

2009-13	Cincinnatus Scholarship, U. Cincinnati (\$32,000 USD)
2009-13	College-Conservatory of Music Scholarship, U. Cincinnati (\$4,000 USD)
2009-13	Founces M. Luley Music Scholarship (\$8,000 USD)

SUPERVISION

	Currently		Past 10 years		Cum.
	Supervised	Co-Supervised	Supervised	Co-Supervised	Total
Undergrad	7	0	12	5	23
Intern	2	0	1	1	4
Masters	1	0	0	0	1
PhD	2	0	0	1	3
Postdoc	0	0	0	0	0

PhD Students

- Shreshth Saxena (03/2021 present). Mobile and scalable eye-tracking methods in audiovisual, social, and remote contexts.
- Maya Flannery (03/2023 present). Uniting formal theories and computational models of individual musical preferences.
- Anna Czepiel (01/2020 09/2023). Real-world music listening in concerts: aesthetic experiences and peripheral physiological responses.

Masters Students

- Joshua Schlichting (09/2023 present)
- Alexander Nguyen (visiting student: 03/2024 04/2024)

Bachelor Thesis Students

- Jackson Shi (09/2023 04/2024)
- Gloria Lui (09/2023 04/2024)
- Kyra Bonus (09/2023 04/2024)
- Megan Klose (09/2023 04/2024)
- Ahmed Saeed (09/2023 04/2024)
- Michael Lee (09/2023 04/2024)
- Mariyah Shaikh (09/2023 04/2023). What is the relationship between cardiac interoception, music, and anxiety?
- Connor Horsley (09/2023 04/2023). Using eye-tracking tools to quantify the relationship between attentional fluctuations and synchronization performance dynamics in an adaptive tapping task
- Catherine Deng (09/2023 04/2023). Music Description and Categorization: A Semantic Analysis of User Generated Tags.
- Alexander Nguyen (01/2022 12/2022). Towards a systematic comparison of computational models of musical expectations.

Bachelors Capstone Students

- Jay Mody, Caitlin Bridel, Michelle Domagala-Tang, Eshaan Chaudhari (09/2023 04/2023). Accelerating deep-learning-based webcam eye-tracking in the browser.
- Zahid Mirza, Biranugan Pirabaharan, Mehak Khan, Areez Visram, Neil Lobo (09/2023 04/2023). Synchronizing multi-person eye-tracking in dynamic real-world environments.

Interns

- Eva Morgand & Soley Siegel (06/2024 08/2024). Building intuitive human-computer interactions with eye movements and sound
- Hannah Fiehn (01/2020 07/2022). Predictors of time spent engaging with unfamiliar music and visual art from a professionally curated online exhibition
- Alexander Nguyen (09/2021 12/2021). Towards a systematic comparison of computational models of musical expectations.

Independent Study & Volunteer Students

Betul Asdemir (09/2023 – 04/2023) | Jackson Shi (09/2023 – 04/2023) | Gloria Lui (09/2023 - 04/2023) | Kyra Bonus (09/2023 - 04/2023) | Megan Klose (09/2023 -04/2023) | Ahmed Saeed (09/2023 – 04/2023) | Ruby Nguyen (09/2017 – 09/2019) | Lily Brown (01/2017 - 09/2019) | Cyril Millendez (08/2016 - 05/2017)

Additional Mentorship Roles

05/2021

Project Mentor. Data Science Bootcamp, Erdős Institute

01/2019 - 09 / 2019 Graduate coordinator for University of California LEADS (Leadership Excellence through Advanced Degrees)

- Assisted under-represented undergraduates in preparing for graduate school by offering one-on-one mentorship
- Helped students successfully complete summer research experiences

09/2015 - 06/2019

Graduate Writing Fellow for the University Writing Program, UCD

- Held one-on-one consultations, group writing retreats, and workshops
- Conducted and published research on graduate student writing

TEACHING

MU = McMaster University; GU = Goethe University, Frankfurt am Main; UCD = University of California, Davis; MPIEA = Max Planck Institute for Empirical Aesthetics

Classes (conducted)

Winter, 2024	Perception Lab, MU
Fall, 2023	Perception Lab, MU
Spring, 2021	Musical Time: Psychological & Theoretical Perspectives, GU
Summer, 2019	Introduction to Research Methods, UCD
Fall, 2018	Visual Rhetoric, UCD
Winter, 2017	Popular Science and Technology Writing, UCD
Fall, 2016	Neurobiology, UCD
Spring, 2016	Cultural History of the Blues, UCD

Classes (assisted teaching)1

E-11 2017	Develolore of Marie LICD		
Fall, 2017 Spring, 2017	Psychology of Music, UCD Human Brain & Disease (led anatomy lab for dissecting sheep brains), UCD		
Fall, 2015	Psychology of Music, UCD		
Winter, 2015	Research Methods, UCD		
Spring, 2015	Neurobiology of Speech, UCD		
Invited Lecturer			
Winter, 2024	"The cognitive neuroscience of music." Psychology of Language, Wellesley College, Wellesley, MA, USA.		
Fall, 2023	"Pupillometry and eye-tracking as tools to study auditory attention." Neuroscience Seminar (NEUROSCI4S03), MU.		
Winter, 2023	"Experimentation in the Cognitive Neuroscience of Music." Neuroscience of Music, Graduate Course, U. of Cincinnati College-Conservatory of Music / U. of Cincinnati Medical School, Cincinnati, Ohio, USA.		
	"Pupillometry and eye-tracking as tools to study auditory attention." Neuroscience Seminar (NEUROSCI4S03), MU.		
	"Pupillometry and eye-tracking as tools to study auditory attention." <i>Scientific Writing (PNB 2XD3), MU</i> .		
Summer, 2021	"Data science for neuroscience." CLaME summer internship program, New York University, USA.		
Fall, 2017	"How to publish as an undergraduate." Undergraduate Research Center, UCD.		
Summer, 2017	"Introduction to literature reviews." Pre-College Program: Mind & Brain, UCD.		
Winter, 2017	"Music & science research methods for undergraduates." <i>Musicology Department, UCD.</i>		
Spring, 2016	"Forming & maintaining writing groups." University Writing Program, UCD.		
	"The first abstract: Teaching undergraduates to summarize their research. Professors for the Future Program, UCD.		
	"Mentoring scientific writing: How to give effective, time-efficient feedback." <i>Professors for the Future Program, UCD.</i>		
	"Music & visual motor behavior." Musicology Department, UCD.		
Fall 2015	"Expectation, Syntax, and Tension in Music" Psychology Department, UCD.		

INVITED TALKS

"Learning Pupillometry: From theory to analyses." (2 days; 4 hrs total) Methods Mar. 2024 Excellence Workshops, University of Konstanz, Germany.

¹ assisted teaching by holding weekly office hours, proctoring and grading all exams, and maintaining student records.

- "The neuroscience of music." Hamilton Brain Bee, McMaster University, Hamilton, ON, Mar. 2024 Canada. "From individual to social dynamics of musical engagement." ARiEAL: The Centre Dec. 2023 for Advanced Research in Experimental and Applied Linguistics, McMaster University, Hamilton, ON, Canada. "Mobile eye-tracking methodology." Applied Psychology and Human Development May 2023 Student Association, Ontario Institute for Studies in Education, University of Toronto, Canada. "From the lab to the concert hall: Studying musical engagement in individual and Apr. 2023 social contexts." Graduate Seminar, Psychology, University of Guelph, Ontario, Canada (virtual). Mar. 2023 Panel discussant on career development panel for postdoctoral women in science. Sign Up! EAF Berlin, Germany (virtual). Mar. 2023 "The proactive audience: Matching music and image—from perception to aesthetic evaluation." Panel Discussant at the Music as Image and Metaphor Exhibition, Kentler International Drawing Space, Brooklyn, NY, USA. https://www.kentlergallery.org/Detail/events/540 "Eye-tracking in musical contexts: what we've learned and where we're going." Feb. 2023 Graduate Seminar, Kinesiology & Health Sciences, University of Waterloo, Ontario, Canada. Feb. 2023 "Pupillometry and eye-tracking as tools to study auditory attention." Center for Cognitive Science, Albert-Ludwigs-Universität Freiburg, Freiburg, Germany (virtual). Nov. 2022 "The cognitive neuroscience of music: What music can teach us about the nervous system and vice versa." Sign Up! Alumnae Meeting, Harnackhaus, EAF Berlin, Germany. Nov. 2022 "Timing is everything: The role of synchrony during musical engagement." Brain and Culture Lecture, Karolinska Institute, Stockholm, Sweden (virtual). "Pupillometry, Eye-tracking, and music: An overview and workshop." ERC-Project June 2022 SloMo, University of Hamburg, Germany. Apr. 2022 "Attention, arousal, and connection: The effects of music across the nervous system and individuals." Seminar Outreach for Minority Advocacy, Center for Neuroscience, University of California, Davis, CA, USA. "The Groove Enhancement Machine (GEM): A multi-person adaptive metronome Apr. 2022 to manipulate sensorimotor synchronization and subjective enjoyment." Graduate
- "Music & eye-tracking research: An overview of theory and methods." Northern Apr. 2022 Network for Empirical Music Research, Liverpool, UK (virtual).

University, Hamilton, Ontario, Canada (virtual).

Student Research Day, Dept. of Psychology, Neuroscience and Behaviour, McMaster

"Analyzing pupil time series." Pupillometry Workshop at RITMO Centre for Apr. 2022 Interdisciplinary Studies in Rhythm, Time and Motion, University of Oslo, Norway. Recording available: https://tinyurl.com/22xky5j4

Dec. 2021 "Dynamics of musical engagement across the nervous system." Department of Psychology, Neuroscience, and Behavior, McMaster University, Hamilton, Ontario, Canada (virtual). "Predicting attentional fluctuations during music listening." Language and May 2021 Computation in Neural Systems Research Group, Max Planck Institute for Psycholinguistics, Nijmegen, The Netherlands (virtual). "Pupil dynamics reflect listeners' attention and absorption." Music Cognition Lab of Feb. 2021 Elizabeth Margulis, Princeton University, New Jersey, USA (virtual). Feb. 2019 "Modeling pupillary entrainment to music and absorptive music listening experiences." Center for Computer Research in Music and Acoustics, Stanford University, Palo Alto, CA, USA. Sept. 2018 "Pupillometry as an auditory research tool." UC Davis Neuroscience Retreat, Bodega Bay Marine Laboratory, Bodega Bay, CA, USA. "The Groove Enhancement Machine." Center for Computer Research in Music and Apr. 2018 Acoustics, Stanford University, Palo Alto, CA, USA. Mar. 2018 "Seeing in time: Rhythmic music systematically alters pupil dynamics." Max Planck Institute for Empirical Aesthetics, Frankfurt a.M., Germany. "Stage presence." Ladies Rock Sacramento, Sacramento, CA, USA. Oct. 2017 "Writing a personal statement." Neuroscience Initiative to Enhance Diversity, UC Davis, Apr. 2017 CA, USA. Nov. 2016 "Predicting audiovisual attention over time." Davis Entrepreneurs Meet-Up, Davis

CONFERENCE PRESENTATIONS

July 2016

Roots, Davis, CA, USA.

Stanford University, Palo Alto, CA, USA.

Fink, L. (2024, Jul., accepted). Costs and benefits of high-stakes, single-shot, multi-person data collection events. Society for Music Perception & Cognition, Banff Centre for Arts and Creativity, Alberta, CA.

"Assessing attention to music using eye-tracking." Stanford Summer Arts Institute,

- Schlichting, J.+, Saxena, S.+, Flannery, M.+, & **Fink, L.** (2024, Jul., accepted). Social justice advocacy through music performance: Do contextual information and social co-presence shape audience reactions and behavior? *Society for Music Perception & Cognition, Banff Centre for Arts and Creativity, Alberta, CA.*
- Saxena, S.+, Flannery, M.+, Schlichting, J.+ & **Fink, L.** (2024, Jul., accepted). Gaze behavior in online and in-person concert and film viewing: A large-scale naturalistic eye-tracking study. *Society for Music Perception & Cognition, Banff Centre for Arts and Creativity, Alberta, CA*.
- Flannery, M.⁺, Saxena, S.⁺, Schlichting, J.⁺ & **Fink, L.** (2024, Jul., accepted). Investigating the influence of contextual information on cardiac activity in response to musical performance. *Society for Music Perception & Cognition, Banff Centre for Arts and Creativity, Alberta, CA*.
- Schlichting, J.⁺, Saxena, S.⁺, Flannery, M.⁺, & **Fink, L.** (2023, Oct.). Social justice advocacy through music performance: Testing the effect of performance context and audience physiological

- responses. 19th Annual Neuromusic Conference, Hamilton, Ontario, Canada. https://www.neuromusic.ca/posters-2023/social-justice-advocacy-through-music-performance-testing-the-influence-of-performance-context-and-audience-physiological-responses-2/
- Flannery, M.⁺, & **Fink, L.** (2023, Oct.). Automating music stimuli creation and analyses: A music synthesis algorithm for producing ground truth data. 19th Annual Neuromusic Conference, Hamilton, Ontario, Canada. https://www.neuromusic.ca/posters-2023/automating-music-stimuli-creation-and-analyses-a-music-synthesis-algorithm-for-producing-ground-truth-data/
- Saxena, S. * & Fink, L. (2023, Oct.). Synchronized multi-person eye-tracking in dynamic scenes. Poster presented at the 19th Annual Neuromusic Conference, Hamilton, Ontario, Canada. https://www.neuromusic.ca/posters-2023/synchronized-multi-person-eye-tracking-in-dynamic-scenes/
- Saxena, S.+, Fiehn, H.+, Shi, J.+, & **Fink, L.** (2023, Aug.). Cross-modal correspondence between contemporary art and music: from perception to aesthetic evaluation. *Talk presented at the 17th International Conference on Music Perception & Cognition (ICMPC17-APSCOM7), Tokyo, Japan.*
- Flannery, M.⁺, Woolhouse, M., **Fink, L.** (2023, Aug.). Models trained on procedurally generated stimuli predict human judgments of Music Acoustic Features in real-world music. *Poster presented at the 17th International Conference on Music Perception & Cognition (ICMPC17-APSCOM7)*, Tokyo, Japan.
- Czepiel, A.+, **Fink, L.**, Seibert, C., Scharinger, M., Wald-Fuhrmann, M. Kotz, S. (2023, Aug.) Cardiorespiratory synchrony to music and among audience members during a live concert. *Talk presented at the 17th International Conference on Music Perception & Cognition (ICMPC17-APSCOM7), Tokyo, Japan.*
- Fink, L. (2023, Aug.). Eye movement patterns when playing from memory: Examining consistency across repeated performances and the relationship between eyes and audio. *Talk presented at the 17th International Conference on Music Perception & Cognition (ICMPC17-APSCOM7), Tokyo, Japan.* https://psyarxiv.com/tecdv/
- Damsma, A., Bouwer, F., **Fink, L.**, Cannon, J., Doelling, K., Grahn, J., Honing H., & Kaplan, T. (2023, Aug.). Modelling rhythm perception beyond the beat. *Symposium presented at the 17th International Conference on Music Perception & Cognition (ICMPC17-APSCOM7), Tokyo, Japan.*
 - **Fink, L.**, Nguyen, A.⁺, & Janata, P. Modeling Rhythmic Expectations: Approaches, Evaluation Metrics, and a Case Study.
- Fink, L., Hörster, M., Poeppel, D., Wald-Fuhrmann, M., & Larrouy-Maestri, P. (2022, Sept.). Western Listeners' perception of music and speech is reflected in acoustic and semantic descriptors. Poster (virtual) presented at the Biology-culture relationships in the evolution of language and music workshop, at the Joint Conference on Language Evolution, Kanazawa, Japan.
- Saxena, S.+, **Fink, L.**, & Lange, E. (2022, Aug.). An online experiment with deep learning models for tracking eye movements via webcam. *Accepted talk at the European Conference on Eye Movements*, *Leicester*, UK.
- Linna, J., Kushan, M., Beck, J., **Fink, L.**, Margulis, L. (2022, Aug.). Using pupillometry to investigate the effect of meditation on musical listening. *Poster presented the Society for Music Perception & Cognition, Portland, OR.*

- Lange, E. & **Fink, L.** (2022, July). Eyeblinks as indices of subjective states during music listening: Methodological considerations. *Talk presented the Conference on Music & Eye-Tracking, Frankfurt am Main, Germany*. https://vimeo.com/728532868/5c8f91824d
- Fink, L., Saxena S.⁺, & Lange, E. (2022, Jul.). Consistency of eye movements across multiple memorized performances: A mobile eye-tracking pilot study. *Talk presented the Conference on Music & Eye-Tracking, Frankfurt am Main, Germany.*https://vimeo.com/728534533/8140ab1cf3
- Basiński, K., Domżalski, T., **Fink, L.**, & Szalewska, D. (2022, Jul.). The effect of harmonicity on pupil dilation response in an auditory oddball task. *Poster presented the Conference on Music & Eye-Tracking, Frankfurt am Main, Germany.*
- Saxena, S.+, Lange, E. & **Fink, L.** (2022). Towards efficient calibration for webcam eye-tracking in online experiments. *Poster presented at the 2022 Symposium on Eye Tracking Research and Applications (ETRA '22), June 08–11, 2022, Seattle, WA, USA.*
- Czepiel, A.+, **Fink, L.**, Seibert, C., Scharinger, M., Kotz, S. (2022, May). Physiological correlates of aesthetic and naturalistic music concert experience. *Poster presented at the International Conference of Cognitive Neuroscience, Helsinki, Finland.*
- Fink, L., Hörster, M., Poeppel, D., Wald-Fuhrmann, M., & Larrouy-Maestri, P. (2022, Apr.). Bonfire happiness or a scratchy affair?: Patterns in free labelling and categorization of percussive stimuli. Poster presented at the Cognitive Neuroscience Society Annual Meeting, San Francisco, CA, USA.
- Lange, E. & **Fink, L.** (2022, Feb.). Eye-tracking as a method to investigate music listening experiences. *Talk presented at the Tagung experimentell arbeitender Psychologen (TeaP)*.
- Hörster, M., Fink, L., Wald-Fuhrmann, M., Poeppel, D. & Larrouy-Maestri, P. (2021, Nov.). Speech, music, or "raindrops on drums": Labels influence the categorization of sounds. *International conference of students of systematic musicology (SysMus21), Aarhus, Denmark.*
- Lange, E. & **Fink, L.** (2021, Aug.). What is the relation between musical features and spontaneous or restricted blink activity? Blick und Bewegung Symposium, organized by Jörg Mühlhans. *Talk (virtual) presented at the DAGA 47. Deutsche Jahrestagung für Akustik, Vienna, Austria.*
- Fink, L., Janata, P., Ganapathy, S., Furukawa, S., Lange, L. (2021, Aug.). The pupil as an index of musical rhythmic structure and listeners' absorption. Blick und Bewegung Symposium, organized by Jörg Mühlhans. Talk (virtual) presented at the DAGA 47. Deutsche Jahrestagung für Akustik, Vienna, Austria.
- Fink, L., Janata, P., Ganapathy, S., Furukawa, S., Lange, L. (July, 2021). Spectral signatures of the pupillary response as an implicit measure of musical absorption. *Talk (virtual) presented at the International Conference for Music Perception & Cognition.*https://www.youtube.com/watch?v=5bpDhrxUvLg
- *Warrenburg, *Fink, L., L. A., Howlin, C., Randall, W. M., +Hansen, N. C., & +Wald-Fuhrmann, M. (2021, in press). Viral Tunes: Changes in musical behaviours and interest in coronamusic predict socio-emotional coping during COVID-19 lockdown. *Talk (virtual) presented at the International Conference for Music Perception & Cognition*. https://www.youtube.com/watch?v=qnR8fWfyVEo

- Larrouy-Maestri, P., **Fink, L.**, Durojaye, C., Hörster, M., Poeppel, D. & Wald-Fuhrmann, M. (2021, July). Music or language or both: Effect of the task on the classification of dùndún talking drum stimuli. *Talk (virtual) presented at the International Conference for Music Perception & Cognition*. https://www.youtube.com/watch?v=vBKJINpRtq8
- Lange, E. & Fink, L. (2021, July). Eyeblink activity during music listening. *Talk (virtual) presented at the International Conference for Music Perception & Cognition*. https://youtu.be/Y7vaASokv24
- Czepiel, A.+, **Fink, L.**, Seibert, C., Scharinger, M. (2021, July). Multimodality of music listening: how live versus recorded versions of piano music influence aesthetic, physiological, and neural responses in a concert setting. *Poster (virtual) presented at the International Conference for Music Perception & Cognition*.
- Fink, L., Alexander, P., Janata, P. (2021, June). The influence of metronome adaptivity and auditory feedback on group tapping. *Talk presented at the Rhythm Perception & Production Workshop, Oslo, Norway (virtual).* https://www.youtube.com/watch?v=optqIxLbz2k
- **Fink, L.**, Janata, P., Ganapathy, S., Furukawa, S., Lange, L. (2021, June). Spectral signatures of the pupillary response as an implicit measure of musical absorption. *Poster presented at the Neuromusic VII conference, Aarhus, Denmark (virtual).*
- Czepiel, A.+, **Fink, L.K.**, Fink, L.T., Wald-Fuhrmann, M., Tröndle, M., & Merrill, J. (2021, June). Inter-subject correlation of physiological responses during live musical performances. *Poster presented at the Neuromusic VII conference, Aarhus, Denmark (virtual).*
- Czepiel, A.+, **Fink, L.**, Seibert, C., Scharinger, M. (2021, Mar). Multimodality of music listening: how live versus recorded versions of piano music influence self-report and physiological responses. *Talk (virtual) presented at the Tagung experimentell arbeitender Psychologen (TeaP)*.
- Fink, L.*, Howlin, C.*, Randall, W., Warrenburg, L., Hansen, N.C., Wald-Fuhrmann, M. (2020, Sept.) Music as a tool for socio-emotional coping during Covid-19 pandemic lockdown. *Talk (virtual) presented at the Society for Education, Music, and Psychology Research.*
- Czepiel, A.⁺, Merrill, J., **Fink, L.**, Egermann, H., Wald-Fuhrmann, M. (2020, Sept.) Tempo and key clarity synchronise physiology in classical concert audiences. *Poster (virtual) presented at the Deutschen Gesellschaft für Musikpsychologie Virtuelle Postertagung.*
- Lange, E., Zweck, F., Sinn, P., Thiel, D., **Fink, L.,** & Kujipers, M. (2020, Sept.) Eye-tracking as method to investigate experiences of aesthetic absorption. *Poster (virtual) presented at the Deutschen Gesellschaft für Musikpsychologie Virtuelle Postertagung.*
- **Fink, L.**, Hurley, B., Geng, J., Lange, E., & Janata, P. (2019, Aug.). A computational model of rhythmic auditory attention predicts the pupillary response to music. *Talk presented at the European Conference on Eye Movements, Alicante, Spain.*
- Lange, E., Thiele, D., **Fink, L.,** & Kuijpers, M. (2019, Aug.). Narrative aesthetic absorption into audiobooks: Acoustics, cross-modal coupling and subjective states are related. *Poster presented at the European Conference on Eye Movements, Alicante, Spain.*
- **Fink, L.**, Alexander, P., Janata, J. (2019, March). Bringing groups of people into greater temporal and psychological synchrony using a multi-person adaptive metronome. *Poster presented at the Cognitive Neuroscience Society Meeting, San Francisco, CA*.

- Mikovits, M., Sperber, L., **Fink, L.** & Prebel, J. (2019, March). Writing fellows as agents of transfer: Training in threshold concepts to support campus-wide sites of writing. *Symposium presented at the College Composition and Communication Convention, Pittsburgh, PA*.
- Fink, L., Lange, E., Janata, P. (2018, July). The pupil entrains to prominent periodicities in music. Talk presented at the International Conference on Music Perception & Cognition, Graz, Austria.
- Fink, L., Hurley, B., Geng, J., & Janata, P. (2018, May). Predicting attention and motor responses to musical patterns. *Poster presented at the Stanford Music & Brain Symposium, Palo Alto, CA*.
- **Fink, L.**, Ribeiro, J., & White, V. (2018, March). Transforming graduate writing experiences: A new Writing Across the Curriculum (WAC) certificate program. *Symposium presented at the College Composition and Communication Convention, Kansas City, MO*.
- Lange, E. & **Fink, L.** (2017, August). Using eye-tracking and pupillometry to study rhythmic processing in music and dance. *Symposium presented at the European Conference on Eye Movements, Wüppertal, Germany.*
- **Fink, L.,** Hurley, B., Geng, J., & Janata, P. (2017, August). Predicting attention to auditory rhythms using a linear oscillator model and pupillometry. *Talk presented at the Conference on Music & Eye-Tracking, Frankfurt, Germany.*
- Fink, L., & Alexander, P., & Janata, P. (2017, July). Fostering Empathy and Improving Focus
 Through the Groove Enhancement Machine: Facilitating Sensorimotor Coordination and
 Cooperation Among Groups of Individuals. Demonstration presented at the National Academies
 Keck Futures Initiative Art, Science, Engineering, and Medicine Mid-Cycle Grant Meeting, Boston, MA.
- Hurley, B., **Fink, L.,** & Janata, P. (2017, March). A resonator model predicts temporal orienting in rhythmic music. *Proc. of the Cognitive Neuroscience Society Annual Meeting*.
- Bright, A., Singleton, J., **Fink, L., &** Rodger, K. (2017, March). Cultivating a Rhetorical Consciousness: Supporting Graduate Student Writers Across the Curriculum. *Symposium presented at the College Composition and Communication Convention, Portland, OR.*
- Fink, L., Hurley, B., Geng, J. & Janata, P. (2016, July). Pupillary and eyeblink responses to auditory stimuli index attention and sensorimotor coupling. *Proceedings of the 14th International Conference for Music Perception & Cognition*, pg. 788.
- Hurley, B., **Fink, L.,** & Janata, P. (2016, July). Predicting temporal attention in music with a damped oscillator model. *Proc. of the 14th International Conference for Music Perception & Cognition*, pg. 782.
- Fink, L. & Rodger, K. (2016, June). Mapping neuroscience through professional writing. Talk presented at the International Writing Across the Curriculum Conference, Ann Arbor, MI.
- Fink, L. (2015, July). Eyeblinks as biomarkers of temporal coordination during music cognition. Poster presented at the Rhythm Perception & Production Workshop, Amsterdam, Netherlands.
- **Fink, L.** & Mazman, A. (2013, July). False belief attribution: An investigation of the neural pattern account. *Poster presented at the Society for Philosophy and Psychology Conference, Providence, RI.*

SERVICE

Governance & Oversight Committees

2023 – University Planning Committee member, McMaster University

2023 –	Departmental representative to Research & High-Performance Computing Support
2023 –	(RHPCS), McMaster University Music Cognition Steering Committee, McMaster University
2020-2022	Postdoctoral representative to the Directors, Music Department, MPIEA
2020-2022	Member of the Equality Support Team, MPIEA
2017	Selection Committee. Neuroscience Initiative to Enhance Diversity, UCD
2014-16	Neuroscience Retreat Organizing Committee, UCD
Editorial	
2021 – 2016 –	Editorial Board Member, Journal of Eye Movement Research Ad-hoc Reviewer for:
	Journals: European Journal of Neuroscience Brain and Cognition Psychology of Music Behavior Research Methods Scientific Reports Cortex Cognitive Neurodynamics PLoS ONE Music & Science Journal of Vision Vision Research Journal of Eye Movement Research Frontiers in Psychology Developmental Science Quarterly Journal of Experimental Psychology Journal of Expertise
	Conferences: Society for Music Perception & Cognition International Conference on Music Perception & Cognition Rhythm Perception & Production Workshop International Conference of Students of Systematic Musicology Neuromusic
	Grants: California Arts Council: Research in the Arts Grant National Science Foundation: Perception Action & Cognition Program European Science Foundation
2017-19 2016-17 2015-16	Guest Editor of Special Issue. Journal of Eye Movement Research Editor-in-Chief. Explorations: The UC Davis Undergraduate Research Journal Editor. Explorations: The UC Davis Undergraduate Research Journal
Science & Ou	utreach
2017 & 2022	Scientific Co-Chair. Conference on Music & Eye-Tracking, MPIEA
2017-18 2017	Founder and coordinator. Seminar Outreach for Minority Advocacy, UCD Graduate Student Coordinator. Neuroscience Initiative to Enhance Diversity, UCD
DDOEECCI	ONAL DEVELOPMENT
PROFESSI	ONAL DEVELOPMENT
Workshops	
2024	Invited faculty member. Telluride Neuromorphic Cognition Engineering Workshop, Telluride, CO, USA
2023	Invited faculty member. Telluride Neuromorphic Cognition Engineering Workshop, Telluride, CO, USA
2020	Neuromatch Academy, observer track, online
2020	Communicating Science to Non-Scientists and Media Training for Researchers, Max-Planck-Gesellschaft, online
2010	

Telluride Neuromorphic Cognition Engineering Workshop, Telluride, CO

Interdisciplinary Kollege: Social Cognition. Günne, Germany

Mini Event-Related Potential Bootcamp, Steve Luck, UCD Center for Mind & Brain

Certificates

2019

2018

2014

2017 2017	AAAS Science Communication Program Designing an Undergraduate STEM course, American Association for the
2017	Advancement of Science Thoughtful Pedagogy for Diverse Learning Environments, UCD Center for Educational Effectiveness
2016	for Educational Effectiveness Foundations in Teaching, UCD Center for Educational Effectiveness
Mentorship I	Programs
2021 2018 2009-10	Sign UP! Career-building Program for Post Docs, Max-Planck-Gesellschaft, EAF Berlin Women in Music Information Retrieval Mentoring Program (mentor: Dr. Kat Agres) Racial Awareness Pilot Program. U. of Cincinnati
AFFILIAT	IONS / MEMBERSHIPS
2018 - 2017 - 2016 - 2015-19 2007-16 2013-14	Cognitive Neuroscience Society Women in Music Information Retrieval Society for Music Perception & Cognition Association of Women in Science Percussive Arts Society Society for Philosophy & Psychology
PROFESSI	ONAL MUSIC EXPERIENCE
2023 –	Orchestral Percussion substitute. <i>Ontario, Canada</i> Mississauga Symphony Orchestra Burlington Symphony Orchestra Ancaster Sinfonia
2018-19	Drum set coach. Girls Rock Sacramento. Sacramento, CA
Nov. 2014	Percussion Quartet: Lauren Fink, Tyler Niemeyer, Shane Jones, Zach Larabee. Premiere of "Oscillator Etudes" by Paul Schuette at the <i>Percussive Arts Society International Convention, Indianapolis, IN</i>
Feb. 2014	Drum set player. "Science! The Musical." World Premiere. Corpus Playroom, Cambridge, UK
Apr. 2013	Senior Recitalist. "Matriculaphony: A Percussive Circus on Van Meter Ames' A Book of Changes." Patricia Corbett Theater, Cincinnati, OH
07-08/2013	Drum Line Instructor. Liberty High School, Youngstown, OH
2012-13	Percussion Accompanist. Dance Division, U. of Cincinnati College-Conservatory of Music.
2010 - 2011	Percussion Coach. Cincinnati Youth Wind Ensemble. Cincinnati, OH
06-07/2010	Orchestral Percussionist. Symphony Orchestra Academy of the Pacific. <i>British Columbia, Canada</i>
2008 - 2014	Private Percussion Teacher. Youngstown & Cincinnati, OH

SELECTED PRESS

2024	12-minute video feature on Canadian news outlet CHCH about <i>Voices</i> (That's What She Said) – an audiovisual art/science installation in the LIVELab. Our mobile eyetracking work is highlighted in segment 2. https://www.chch.com/explore-the-impact-women-have-made-at-voices-thats-what-she-said/
2024	McMaster Communications piece about <i>The Innocents</i> LIVELab study, where we used mobile eye-tracking, heart rate monitoring, and surveys during a music concert and documentary film screening. https://science.mcmaster.ca/get-up-stand-up-beat-lab-exploring-how-music-can-support-social-justice/
2021	Press release about our project using the talking drum to study how people distinguish speech from music. https://nachrichten.idw-online.de/2021/07/13/when-drums-talk-how-we-distinguish-speech-from-music
2021	Forbes articles about our Coronamusic project, tracing if/how people used music to cope during pandemic lockdown. https://www.forbes.com/sites/evaamsen/2021/02/27/coronamusic-gives-people-a-sense-of-belonging-according-to-research/
2019	30-minute interview on Applied Science Live podcast about music, eye-tracking, tapping, and more. https://www.appliedsciencelive.com/episodes/dr-lauren-fink

REFERENCES

MPIEA:

Prof. Dr. Melanie Wald-Fuhrmann: Director, Max Planck Institute for Empirical Aesthetics Phone: +49 69-8300479-200 | E-Mail: melanie.wald-fuhrmann@ae.mpg.de

UCD:

Prof. Dr. Petr Janata: Professor of Psychology, Center for Mind & Brain, UC Davis Phone: +1 (530) 297 4471 | E-Mail: pjanata@ucdavis.edu

U. of Cambridge:

Prof. Dr. Ian Cross: Professor of Music and Science, Faculty of Music, U. of Cambridge, UK Phone: +44 (0)1223 335185 | E-Mail: ic108@cam.ac.uk

U. of Cincinnati, College-Conservatory of Music:

Prof. Allen Otte: Professor of Percussion, U. of Cincinnati College-Conservatory of Music Phone: +1 (513) 556 9423 | E-Mail: allen.otte@uc.edu