

Lauren K. Fink

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Curriculum Vitae – Feb. 2024

1. 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, *summa cum laude*

2. 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/libblog/?s=lauren+fink>

3. 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 multi-person 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., Gangopadhyay, 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., Gangopadhyay, 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

Fink, L., Fiehn, H.⁺ & Wald-Fuhrmann, M. (2023). The role of audiovisual congruence in perception and aesthetic appreciation of contemporary music and visual art. Pre-registration: 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). 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>

4. 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/>

5. GRANTS / SCHOLARSHIPS / FELLOWSHIPS

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)

2024-26 Canadian Foundation for Innovation, John R Evans Leaders Fund & Ontario Research Fund Small Infrastructure Fund. “The role of brain-viscera coupling in shaping subjective experience and social interaction.” Role: PI. (\$500,000 CAD)

- 2023-27 Canadian Institutes of Health Research. “A novel approach to assess listening effort 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 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 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 Cincinnati 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)

6. TEACHING CAREER

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

Classes (conducted)

- Fall/Winter, 2023-24 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

Fall, 2017	Psychology of Music, UCD
Spring, 2017	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

Mentoring / Supervision

- 01 /2023 – present Supervisor of graduate and undergraduate students at McMaster
- **PhD Students:**
 - Shreshth Saxena (03/2021 – present)
 - Topic: Mobile and scalable eye-tracking methods in audiovisual, social, and remote contexts
 - Maya Flannery (03/2023 – present)
 - Topic: Uniting formal theories and computational models of individual musical preferences
 - **Masters Students:**
 - Joshua Schlichting (09/2023 – present)
 - **Bachelor Thesis Students:**
 - Mariyah Shaikh (09/2023 – present)
 - Connor Horsley (09/2023 – present)
 - Catherine Deng (09/2023 – present)
 - **SFWRENG 4G06 Capstone students**
 - 1) Accelerating deep-learning-based webcam eye-tracking in the browser (Jay Mody, Caitlin Bridel, Michelle Domagala-Tang, Eshaan Chaudhari)
 - 2) Synchronizing multi-person eye-tracking in dynamic real-world environments (Zahid Mirza, Biranugan Pirabaharan, Mehak Khan, Areez Visram, Neil Lobo)
 - **PNB3QQ3 Students (Independent Study)**
 - Independent study supervisor to 5 third-year students receiving course credit (Jackson Shi, Gloria Lui, Betul Asdemir, Kyra Bonus, Megan Klose)
- 01 /2020 – 12/2022 Co-Supervisor of PhD students and interns in the Music Dept. at MPIEA
- **PhD Students:**
 - Anna Czepiel (01/2020 – present)
 - Topic: Real-world music listening in concerts: aesthetic experiences and peripheral physiological responses
 - **Interns:**
 - Alexander Nguyen (09/2021 - 03/2022)
 - Hannah Fiehn (01/2020 – 07/2022)

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

- 01 – 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 find and complete summer research experiences
- 09/2015 – 06/2019 Graduate Writing Fellow for the University Writing Program
- Held one-on-one consultations, group writing retreats, and writing workshops
 - Conducted research on graduate student writing
- 09/2017 – 09/2019 Graduate mentor, Janata Lab
- Mentored four undergraduate research assistants (2 from Psychology; 1 from Neurobiology, Physiology, & Behavior; 1 from Musicology)
- 01 – 06/2017 Graduate mentor for the Undergraduate Research Center
- Mentored undergraduate Psychology student in lab-based research methods

Invited Lecturer

- Winter, 2024 “TBD.” *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.” *Scientific Writing (PNB 2XD3), MU.*
- 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.” *Musicology Department, UCD.*
- 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.” *Professors for the Future Program, UCD.*
- “Music & visual motor behavior.” *Musicology Department, UCD.*

Fall 2015 “Expectation, Syntax, and Tension in Music” *Psychology Department, UCD.*

7. INVITED TALKS

- Mar. 2024 “Learning Pupillometry: From theory to analyses.” (2 days; 4 hrs total) *Methods Excellence Workshops, University of Konstanz, Germany.*
- Mar. 2024 “The neuroscience of music.” Hamilton Brain Bee, *McMaster University, Hamilton, ON, Canada.*
- Dec. 2023 “From individual to social dynamics of musical engagement.” ARiEAL: The Centre for Advanced Research in Experimental and Applied Linguistics, *McMaster University, Hamilton, ON, Canada.*
- May 2023 “Mobile eye-tracking methodology.” Applied Psychology and Human Development Student Association, Ontario Institute for Studies in Education, *University of Toronto, Canada.*
- Apr. 2023 “From the lab to the concert hall: Studying musical engagement in individual and 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.kentlertgallery.org/Detail/events/540>
- Feb. 2023 “Eye-tracking in musical contexts: what we’ve learned and where we’re going.” 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).*
- June 2022 “Pupillometry, Eye-tracking, and music: An overview and workshop.” ERC-Project 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.*
- Apr. 2022 “The Groove Enhancement Machine (GEM): A multi-person adaptive metronome to manipulate sensorimotor synchronization and subjective enjoyment.” Graduate

- Student Research Day, Dept. of Psychology, Neuroscience and Behaviour, *McMaster University, Hamilton, Ontario, Canada (virtual)*.
- Apr. 2022 “Music & eye-tracking research: An overview of theory and methods.” *Northern Network for Empirical Music Research, Liverpool, UK (virtual)*.
- Apr. 2022 “Analyzing pupil time series.” Pupillometry Workshop at RITMO Centre for 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)*.
- May 2021 “Predicting attentional fluctuations during music listening.” Language and Computation in Neural Systems Research Group, *Max Planck Institute for Psycholinguistics, Nijmegen, The Netherlands (virtual)*.
- Feb. 2021 “Pupil dynamics reflect listeners’ attention and absorption.” Music Cognition Lab of 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*.
- Apr. 2018 “The Groove Enhancement Machine.” Center for Computer Research in Music and 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*.
- Oct. 2017 “Stage presence.” *Ladies Rock Sacramento, Sacramento, CA, USA*.
- Apr. 2017 “Writing a personal statement.” *Neuroscience Initiative to Enhance Diversity, UC Davis, CA, USA*.
- Nov. 2016 “Predicting audiovisual attention over time.” Davis Entrepreneurs Meet-Up, *Davis Roots, Davis, CA, USA*.
- July 2016 “Assessing attention to music using eye-tracking.” Stanford Summer Arts Institute, *Stanford University, Palo Alto, CA, USA*.

8. CONFERENCE PRESENTATIONS

- 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., Domzalski, 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 dundún 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.**, & Kuijpers, 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. *Proceedings 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. *Proceedings 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.*

9. SERVICE

- 2023 – University Planning Committee member, McMaster University
- 2023 – Departmental representative to Research & High-Performance Computing Support (RHPCS), McMaster University
- 2023 – Music Cognition Steering Committee, McMaster University
- 2021 – Editorial Board Member, *Journal of Eye Movement Research*
- 2016 – 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*

Grants: *California Arts Council: Research in the Arts Grant | National Science Foundation: Perception Action & Cognition Program*

- 2020-2022 Postdoctoral representative to the Directors, Music Department, MPIEA
- 2020-2022 Member of the Equality Support Team, MPIEA
- 2021 Project Mentor. Data Science Bootcamp, *Erdős Institute*, Columbus, Ohio, USA
- 2017 & 2022 Scientific Chair. [Conference on Music & Eye-Tracking](#), MPIEA
- 2017-19 Guest Editor of Special Issue. *Journal of Eye Movement Research*
- 2017-18 Founder and coordinator. Seminar Outreach for Minority Advocacy, UCD
- 2017 Selection Committee. Neuroscience Initiative to Enhance Diversity, UCD
- 2017 Graduate Student Coordinator. Neuroscience Initiative to Enhance Diversity, UCD
- 2016-17 Editor-in-Chief. *Explorations: The UC Davis Undergraduate Research Journal*
- 2015-16 Editor. *Explorations: The UC Davis Undergraduate Research Journal*
- 2014-16 Neuroscience Retreat Organizing Committee, UCD

10. PROFESSIONAL DEVELOPMENT

- 2023 Invited faculty member. Telluride Neuromorphic Cognition Engineering Workshop, *Telluride, CO, USA*
- 2021 Sign UP! Career-building Program for Post Docs, *Max-Planck-Gesellschaft, EAF Berlin*
- 2020 Communicating Science to Non-Scientists and Media Training for Researchers, *Max-Planck-Gesellschaft, online*
- 2020 Neuromatch Academy, observer track, *online*
- 2019 Telluride Neuromorphic Cognition Engineering Workshop, *Telluride, CO*
- 2018 Mini Event-Related Potential Bootcamp, *Steve Luck, UCD Center for Mind & Brain*
- 2018 Women in Music Information Retrieval Mentoring Program (mentor: Dr. Kat Agres)
- 2017 Certificate: AAAS Science Communication Program
- 2017 Certificate: Designing an Undergraduate STEM course, *American Association for the Advancement of Science*
- 2017 Certificate: Thoughtful Pedagogy for Diverse Learning Environments, *UCD Center for Educational Effectiveness*
- 2016 Certificate: Foundations in Teaching, *UCD Center for Educational Effectiveness*
- 2014 Interdisciplinary Kollege: Social Cognition. *Günne, Germany*
- 2009-10 Racial Awareness Pilot Program. *U. of Cincinnati*

11. AFFILIATIONS / MEMBERSHIPS

- 2018 – Cognitive Neuroscience Society
- 2017 – Women in Music Information Retrieval
- 2016 – Society for Music Perception & Cognition
- 2015-19 Association of Women in Science
- 2007-16 Percussive Arts Society
- 2013-14 Society for Philosophy & Psychology

12. PROFESSIONAL MUSIC EXPERIENCE

- 2023 – Orchestral Percussion substitute. *Ontario, Canada*
 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 *Percussive Arts Society International Convention, Indianapolis, IN*
- 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. *British Columbia, Canada*
- 2008 – 2014 Private Percussion Teacher. *Youngstown & Cincinnati, OH*

13. REFERENCES

MPIEA:

Prof. Dr. Melanie Wald-Fuhrmann: Director, Max Planck Institute for Empirical Aesthetics
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