

# Lauren Fink

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**Curriculum Vitae – Sept. 2023**

## 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, McMaster University, Ontario, Canada.
- 01/2020 – 12/2022     **Postdoctoral Researcher** in the Music Dept., Max Planck Institute for Empirical Aesthetics, Frankfurt am Main, Germany.
- 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>

### 3. PUBLICATIONS

\* indicates co-first authorship, or co-last authorship (equal contribution)

+ indicates student mentee

- Czepiel, A.<sup>+</sup>, **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.<sup>+</sup>, **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.<sup>+</sup>, **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>

### 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](https://psyarxiv.com/tecdv)
- Saxena, S.<sup>+</sup>, 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.**, 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>

### Manuscripts in preparation

Czepiel, A.<sup>+</sup>, **Fink, L.**, Seibert, C., Scharinger, M., Kotz, S. (in prep). Cardiorespiratory synchrony between concert audience members.

**Fink, L.** & Fiehn, H.<sup>+</sup> (in prep). Congruency between contemporary music and visual art does not affect subjective aesthetic evaluation, though it is perceivable. Pre-registration: [osf.io/hjgc5](https://osf.io/hjgc5)

Nguyen, A.<sup>+</sup> & **Fink, L.** (in prep). Towards a systematic comparison of computational models of musical expectations.

**Fink, L.**, Janata, P., Ganapathy, S., Furukawa, S. & Lange, E. (in prep). Using pupillometry and computational models of salience to predict listener’s absorption into music. *Preliminary results discussed here*: <https://www.youtube.com/watch?v=5bpDhrxUvLg>

\*Tavano, A., \***Fink, L.**, Sierra, F., Lange, E., Poeppel, D., Valsecchi, M. (in prep). Eye and brain dynamics synchronize in expectation of future events.

## 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)

2023-27	Canadian Foundation for Innovation, John R Evans Leaders Fund. “The role of brain-viscera coupling in shaping subjective experience and social interaction.” Role: PI. (\$200,000)
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)
2017-19	ARCS Foundation Achievement Research Award for College Scientists (\$22,000)
2016-19	Lead Graduate Writing Fellowship, UCD (\$11,000)
2016-19	University Writing Program Travel Award, UCD (\$1,900)
2018	Graduate Student Association Special Projects Award (\$700)
2017-18	Graduate Student Association Travel Award (\$1000)
2018	Lesbians Who Tech Summit Scholarship (\$250)
2017	UC Davis Diversity Inclusion and Innovation Grant. “SOMA: Seminar Outreach for Minority Advocacy.” PI: Lauren Fink (\$5,000)
2016-17	UC Davis & Humanities Graduate Research Award (\$3,000)
2016	University of California Music Experience Research Community Initiative: Research Exchange Grant – UC San Diego (\$3,500)
2016	Ling-Lie Chau Student Award for Brain Research, UCD (\$1,000)
2015	University of California Music Experience Research Community Initiative Symposium Travel Award (\$1,200)
2015-16	Graduate Writing Fellowship, UCD (\$3,000)
2014-15	Neuroscience Graduate Group Fellowship, UCD (\$28,680)
2014	William Barclay Squire Fund/Wolfson College Travel Grant, U. Cambridge (£600)
2013-14	Cambridge Overseas Trust, Wolfson Cambridge Scholarship, U. Cambridge (£7000)
2012-13	U. of Cincinnati Marshall Scholarship Finalist
2012-13	Undergraduate Research Council Grant, U. Cincinnati (\$3,000)
2012	Summer Undergraduate Research Fellowship, U. Cincinnati (\$4,000)
2011	Summer Undergraduate Mentored Research Grant, U. Cincinnati (\$3,000)
2009-13	Cincinnati Scholarship, U. Cincinnati (\$32,000)
2009-13	College-Conservatory of Music Scholarship, U. Cincinnati (\$4,000)
2009-13	Fouces M. Luley Music Scholarship (\$8,000)

## 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)<sup>1</sup>

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	<p>Supervisor of graduate and undergraduate students at McMaster</p> <ul style="list-style-type: none"> <li>• <b>PhD Students:</b> <ul style="list-style-type: none"> <li>○ Shreshth Saxena (03/2021 – present) <ul style="list-style-type: none"> <li>▪ Topic: Mobile and scalable eye-tracking methods in audiovisual, social, and remote contexts</li> </ul> </li> <li>○ Maya Flannery (03/2023 – present) <ul style="list-style-type: none"> <li>▪ Topic: Uniting formal theories and computational models of individual musical preferences</li> </ul> </li> </ul> </li> <li>• <b>Masters Students:</b> <ul style="list-style-type: none"> <li>○ Joshua Schlichting (09/2023 – present)</li> </ul> </li> <li>• <b>Bachelor Thesis Students:</b> <ul style="list-style-type: none"> <li>○ Mariyah Shaikh (09/2023 – present)</li> <li>○ Connor Horsley (09/2023 – present)</li> </ul> </li> <li>• <b>SFWRENG 4G06 Capstone students</b> <ul style="list-style-type: none"> <li>○ Supervisor to two software engineering teams completing Computer Science capstone projects: <ul style="list-style-type: none"> <li>▪ 1) Accelerating deep-learning-based webcam eye-tracking in the browser (Jay Mody, Caitlin Bridel, Michelle Domagala-Tang, Eshaan Chaudhari)</li> <li>▪ 2) Synchronizing multi-person eye-tracking in dynamic real-world environments (Zahid Mirza, Biranugan Pirabakaran, Mehak Khan, Areez Visram, Neil Lobo)</li> </ul> </li> </ul> </li> <li>• <b>PNB3QQ3 Students</b> <ul style="list-style-type: none"> <li>○ Independent study supervisor to 5 third-year students receiving course credit (Jackson Shi, Gloria Lui, Betul Asdemir, Kyra Bonus, Megan Klose)</li> </ul> </li> </ul>
01 /2020 – 12/2022	<p>Co-Supervisor of PhD students and interns in the Music Dept. at MPIEA</p> <ul style="list-style-type: none"> <li>• <b>PhD Students:</b> <ul style="list-style-type: none"> <li>○ Anna Czepiel (01/2020 – present) <ul style="list-style-type: none"> <li>▪ Topic: Real-world music listening in concerts: aesthetic experiences and peripheral physiological responses</li> </ul> </li> </ul> </li> <li>• <b>Interns:</b> <ul style="list-style-type: none"> <li>○ Alexander Nguyen (09/2021 - 03/2022)</li> <li>○ Hannah Fiehn (01/2020 – 07/2022)</li> </ul> </li> </ul>

<sup>1</sup> 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, 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.*
- Winter, 2023 “Pupillometry and eye-tracking as tools to study auditory attention.” *Neuroscience Seminar (NEUROSCI4S03), MU.*
- Winter, 2023 “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.*
- 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

- 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.kentlergallery.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

- Saxena, S.<sup>+</sup>, Fiehn, H.<sup>+</sup>, Shi, J.<sup>+</sup>, & **Fink, L.** (2023, Aug.). Cross-modal correspondence between contemporary art and music: from perception to aesthetic evaluation. *Talk presented at the 17<sup>th</sup> International Conference on Music Perception & Cognition (ICMPC17-APSCOM7), Tokyo, Japan*.
- Flannery, M.<sup>+</sup>, 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 17<sup>th</sup> International Conference on Music Perception & Cognition (ICMPC17-APSCOM7), Tokyo, Japan*.
- Czepiel, A.<sup>+</sup>, **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 17<sup>th</sup> 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 17<sup>th</sup> International Conference on Music Perception & Cognition (ICMPC17-APSCOM7), Tokyo, Japan*. <https://psyarxiv.com/tecdv/>

- Damsma, A., Bouwer, F., **Fink, L.**, Cannon, J., Doelling, K., Grahm, J., Honing H., & Kaplan, T. (2023, Aug.). Modelling rhythm perception beyond the beat. *Symposium presented at the 17<sup>th</sup> International Conference on Music Perception & Cognition (ICMPC17-APSCOM7), Tokyo, Japan.*
- Fink, L.**, Nguyen, A.<sup>+</sup>, & 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.<sup>+</sup>, **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.<sup>+</sup>, & 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., Domżański, T., **Fink, L.**, & Szalewska, D. (2022, Jul.). The effect of harmonic on pupil dilation response in an auditory oddball task. *Poster presented the Conference on Music & Eye-Tracking, Frankfurt am Main, Germany.*
- Saxena, S.<sup>+</sup>, 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.<sup>+</sup>, **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). Eyeblick activity during music listening. *Talk (virtual) presented at the International Conference for Music Perception & Cognition.* <https://youtu.be/Y7vaASokv24>
- Czepiel, A. <sup>+</sup>, **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. <sup>+</sup>, **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. <sup>+</sup>, **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.<sup>+</sup>, 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.**, & Kuipers, 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.**, & Kuipers, 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, Wuppertal, 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 14<sup>th</sup> 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 14<sup>th</sup> 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, <i>Telluride, CO</i>
2021	Sign UP! Career-building Program for Post Docs, <i>Max-Planck-Gesellschaft, EAF Berlin</i>
2020	Communicating Science to Non-Scientists and Media Training for Researchers, <i>Max-Planck-Gesellschaft, online</i>
2020	Neuromatch Academy, observer track, <i>online</i>
2019	Telluride Neuromorphic Cognition Engineering Workshop, <i>Telluride, CO</i>
2018	Mini Event-Related Potential Bootcamp, <i>Steve Luck, UCD Center for Mind &amp; Brain</i>
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, <i>American Association for the Advancement of Science</i>
2017	Certificate: Thoughtful Pedagogy for Diverse Learning Environments, <i>UCD Center for Educational Effectiveness</i>
2016	Certificate: Foundations in Teaching, <i>UCD Center for Educational Effectiveness</i>
2014	Interdisciplinary Kollege: Social Cognition. <i>Günne, Germany</i>
2009-10	Racial Awareness Pilot Program. <i>U. of Cincinnati</i>

## 11. AFFILIATIONS / MEMBERSHIPS

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

## 12. PROFESSIONAL MUSIC EXPERIENCE

2023 –	Orchestral Percussion substitute. <i>Ontario, Canada</i> Mississauga Symphony Orchestra Ancaster Sinfonia Burlington Symphony
2018-19	Drum set coach. Girls Rock Sacramento. <i>Sacramento, CA</i>
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, <i>Cambridge, UK</i>
Apr. 2013	Senior Recitalist. “Matriculaphony: A Percussive Circus on Van Meter Ames’ <i>A Book of Changes</i> .” Patricia Corbett Theater, <i>Cincinnati, OH</i>
07-08/2013	Drum Line Instructor. Liberty High School, <i>Youngstown, OH</i>
2012-13	Percussion Accompanist. Dance Division, <i>U. of Cincinnati College-Conservatory of Music</i> .
2010 – 2011	Percussion Coach. Cincinnati Youth Wind Ensemble. <i>Cincinnati, OH</i>

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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**Dr. Elke Lange:** Senior Researcher, Max Planck Institute for Empirical Aesthetics  
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**Prof. Dr. Joy Geng:** Associate Professor of Psychology, Center for Mind & Brain, UC Davis  
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