

CURRICULUM VITAE

Claire Arthur

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EDUCATION

- 2016 **PhD**, Music Theory and Cognition, Ohio State University
2008 **Master of Arts**, Music Theory, University of British Columbia
2004 **Bachelor of Music**, Music Theory and History, University of Toronto

ACADEMIC POSITIONS

- 2019- **Assistant Professor**, School of Music, Georgia Institute of Technology
2018-2019 **Visiting Assistant Professor**, School of Music, Georgia Institute of Technology
2017 **Lecturer**, Schulich School of Music, McGill University
2016-2018 **Postdoctoral Fellow**, Schulich School of Music, McGill University
2015-2016 **Graduate Research Assistant**, School of Music, Ohio State University
2012-2014 **Graduate Teaching Assistant**, School of Music, Ohio State University

COURSES TAUGHT

Georgia Institute of Technology:

- * **Graduate Music Research Seminar** (Fall-Spring, 2018-2022)
- * **Audio Technologies II** (Spring 2019-22)
- * **Project Studio Technology** (Fall 2021)
- * **Special Topics: Computational Musicology (Symbolic)** (Fall 2020, 2022)
- * **Undergraduate Capstone** (Fall-Spring, 2018-19, 21-22)
- * **Music Perception and Cognition** (Fall 2018, 2023)

McGill University:

- * **Perception of Compositional Structures** (Fall 2017)

Ohio State University:

- * **Music Theory I-IV** (2012-2015)
- * **Aural Skills I-IV** (2012-2015)

SELECTED PUBLICATIONS

- Arthur, C. (In Press). Harmonic expectancy violations: Testing the effects of familiarity, lead-in time, and ecological validity, *Psychology of Music*
- Arthur, C. & Condit-Schultz, N. (2023). The Coordinated Corpus of Popular Musics (CoCoPops): A Meta-Dataset of Melodic and Harmonic Transcriptions. *Proceedings of the 24th International Society for Music Information Retrieval Conference*, Milan, Italy
- Jain, R. & Arthur, C. (2023). An Algorithmic Approach to Automated Symbolic Transcription of Hindustani Vocals, *Proceedings of the 10th International Conference on Digital Libraries for Musicology*, 12-21. DOI: <https://doi.org/10.1145/3625135.3625137>
- Arthur, C., Evans, M. G., McNamara, J., & Davidenko, N. (2023). Looping in your Head: A Corpus Analysis of Sung “Earworm” Fragments, *Proceedings of the International Society for Music Perception and Cognition Conference*, Tokyo, Japan

- Arthur, C. (2023). Why do songs get “stuck in our heads”? Towards a theory for explaining earworms. *Music & Science*, 6, 1-15. DOI: <https://doi.org/10.1177/205920432311645>
- Alben, N. & Arthur C. (2023) Pupil Dilation as a Function of Pitch Discrimination Difficulty: A Replication of Kahneman and Beatty, 1967. *Attention, Perception & Psychophysics*. DOI: <https://doi.org/10.3758/s13414-023-02765-7>
- Arthur, C., Lehman, F., & McNamara, J. (2022). Presenting the SWTC: A Symbolic Corpus of Themes from John Williams’ Star Wars Episodes I-IX. *Empirical Musicology Review*, 17(2), 169-177. DOI: <https://doi.org/10.18061/emr.v17i2.8927>
- Clark, B., & Arthur, C. (2022). Is melody “dead”? A large scale analysis of pop music melodies from 1960 through 2019. *Empirical Musicology Review*, 17(2), 120-149. DOI: <https://doi.org/10.18061/emr.v17i2.8746>
- Arthur, C., Cumming, J., & Schubert, P. (2022). The role of structural tones in establishing mode in Renaissance counterpoint. In D. Shanahan, I. Quinn, & A. Burgoyne (Eds.) *The Oxford Handbook of Corpus Studies*. Oxford University Press (Advance online publication, DOI:10.1093/oxfordhb/9780190945442.013.25)
- Arthur, C., (2021). Vicentino versus Palestrina: A computational investigation of voice leading across changing vocal densities. *Journal of New Music Research*, 50(1), 74-101.
- Light, L., & Arthur, C. (2021). Voice leading in Palestrina’s Masses: A comparison of interval-succession definitions. *Proceedings of the First Annual Future Directions of Music Cognition Conference*. (<http://org.osu.edu/mascats/proceedings/>)
- Hu, T., & Arthur, C. (2021). A statistical model for melodic reduction. *Proceedings of the First Annual Future Directions of Music Cognition Conference*. (<http://org.osu.edu/mascats/proceedings/>)
- Lerch, A., Arthur, C., Pati, A., & Gururani, S. (2020). An Interdisciplinary Review of Music Performance Analysis. *Transactions of the International Society for Music Information Retrieval*, 3(1), pp. 221–245.
- Lerch, A., Arthur, C., Pati, A., & Gururani, S. (2019). Music performance analysis: A survey. In *Proceedings of the International Society of Music Information Retrieval (ISMIR) conference*. Delft, Netherlands.
- Condit-Schultz, N., & Arthur, C. (2019). humdrumR: A new take on an old approach to computational musicology. In *Proceedings of the International Society of Music Information Retrieval (ISMIR) conference*. Delft, Netherlands.
- Clark, B., & Arthur, C. (2019). Alternative measures: A musicologist workbench for popular music. In I. Barbancho, L. J. Tardon, A. Peinado, & A. M. Barbancho (Eds.), *Proceedings of the 16th Sound Music Computing (SMC) Conference*, 407-414. Malaga, Spain.
- Arthur, C. (2018). A perceptual study of scale degree qualia in context. *Music Perception*, Vol.35(3), 295-314.
- Arthur, C. (2017). Taking harmony into account: The effect of harmony on melodic probability. *Music Perception*, Vol. 34(4), 405-423.
- Arthur, C. & Huron, D. (2016). The direct octaves rule: Testing a scene analysis interpretation. *Musicae Scientiae*, Vol. 20(4), 495-511.

INVITED TALKS

Keynotes

2019, Bringing more information to music informatics: Combining tools, data, and best practices from cognition and MIR. *7th seminar on Cognitively Based Music Informatics (CogMIR)*, Brooklyn College

Invited Speaker

2024, Computational Modeling of Salient Pop Music Structures: Predicting 'Ooohs,' 'Ahhs', and Earworms. *2023-24 Seminar Series CODAMUS: Computational and Digital Approaches to Music Scholarship*, University of Wuerzburg, Germany

2023, The Teleology and Taxonomy of an Earworm: Insights from Interdisciplinary Research. *Annual Graduate Seminar*, Penn State

2021, Computational Approaches to Music Cognition. *Computational Music Theory Seminar*, Massachusetts Institute of Technology, (virtual presentation)

2021, Harmonic expectancy violations and reward: Big questions, small answers. *Music Theory & Cognition Colloquium*, Northwestern University.

2020, Renaissance contrapuntal theory and practice: a large-scale computational analysis. *Music Theory Forum*, Texas Tech University.
(virtual presentation)

2020, A computational investigation of Renaissance voice-leading practices. *Musicology Seminar Series*, University of Massachusetts at Amherst, (virtual presentation)

2019, Empirical musicology: A responsible user's guide, *Synthesis: Interdisciplinary Collaboration in Computational Music Research Symposium*, U.C. Berkeley.

Invited Workshops

2023, *Decoding Musical Structure: Theory, Computation, and Neuroscience*, 5-day workshop at Monte Verita, Lago Maggiore, Switzerland

2022, *Representing Harmony: Goals and Challenges*, 4-day workshop at École Polytechnique Fédérale de Lausanne, Switzerland

SELECTED CONFERENCE PRESENTATIONS

Arthur, C. & Jain, R. (2022). Predicting Emotionally-Salient Musical Moments: A Corpus Study. Biannual Conference for the *Society for Music Perception and Cognition*, Portland, OR.

Arthur, C. & Condit-Schultz, N. (2021). Testing the “loose-verse, tight-chorus” model: A corpus study of melodic-harmonic divorce. *Society for Music Theory 44th Annual Meeting* (virtual).

Arthur, C. (2020). Stimulus traits and inter-subject variability in provoking harmonic expectancy violation. Presented at *Brain, Cognition, Emotion, Music Conference*. University of Kent, U.K. (virtual conference, poster presentation).

Arthur, C. (2019). Musical surprise: Bridging emotion and expectation research. *First annual workshop-symposium on research methods in music and emotion*. Durham University, U.K.

Nápoles, N., Arthur, C., & Fujinaga, I. (2018) Symbolic and audio key detection based on a hidden Markov model, *MIREX* poster presented at the *19th International Society for Music Information Retrieval (ISMIR)* conference. Paris, France. (Poster presentation)

Arthur, C., Cumming, J., & Schubert, P. (2018) The role of structural tones in establishing mode in Renaissance two-part counterpoint. *15th International Conference on Music Perception and Cognition*, Montreal, QC, Canada. (Poster presentation)

Arthur, C., Cumming, J., & Schubert, P. (2018) Computer-assisted modal identification. *46th Medieval and Renaissance music conference*, Maynooth University, Ireland.

Arthur, C. (2017). Renaissance counterpoint in theory and practice: A case study. *45th Medieval and Renaissance music conference*, Prague, Czech Republic.

Léveillé Gauvin, H., Condit-Schultz, N., & Arthur, C. (2017). Supplementing melody, lyrics, and acoustic information to the McGill Billboard. *DH2017: premiere annual conference of the international Alliance of Digital Humanities Organizations*, Montreal, QC, Canada. (Poster presentation)

Arthur, C., Condit-Schultz, N., & Sapp, C. S. (2017). MEI, Humdrum, and Music21: A comparison of music encoding systems and toolkits. *Music Encoding Conference*, Tours, France.

SOFTWARE

humdrumR: A user-friendly software package for computational analysis (Nat Condit-Schultz, Claire Arthur). <https://computational-cognitive-musicology-lab.github.io/humdrumR/>

AWARDS

2022 Georgia Tech Class of 1969 Teaching Fellow, \$1000

2021 National Endowment for the Humanities, Digital Humanities Advancement Grant (co-PI), *humdrumR: A user-friendly software package for computational music analysis*, \$99,893

2021 College of Design Faculty Development Grant, *Modeling Emotionally Salient Musical Structures*, \$11,000

2020 College of Design Faculty Research Fellow

2015	The Helmholtz Award for Music Psychology
2014	Doctoral Fellowship, Social Sciences & Humanities Research Council of Canada (SSHRC), \$60,000
2014	Research Fellowship, Cognitive Center for Brain Sciences, Ohio State University, \$5000
2014	Graduate Achievement Award in Music Theory & Composition
2013	Research Fellowship, Cognitive Center for Brain Sciences, Ohio State University, \$5000

PROFESSIONAL SERVICE

Conference Organization

- * Diversity & Equity co-chair, International Society for Music Information Retrieval (ISMIR 2023)
- * General Chair, Digital Libraries for Musicology (2022)
- * Programme Chair, Digital Libraries for Musicology (2021)
- * WiMIR Co-chair, Women in Music Information Retrieval (ISMIR 2020)

Conference & Society Committee Activities

- * Board member, Society for Music Information Retrieval (2024-2026)
- * Committee member, Society for Music Theory: Awards Committee (2022-2024)
- * Committee member, Society for Music Theory: IT/Networking Committee (2017-2020)
- * Program committee member, Future Directions of Music Cognition Conference (2020)
- * Program committee member, Digital Libraries for Musicology (2020)

School & College Committee Work

- * School of Music faculty search committee member, 2022-23
- * Staff-faculty expectations taskforce, 2020
- * Admissions committee (BSMT, MSMT, BSMS, PhD), 2019-2024
- * Guthman Musical Instrument Competition committee, (2020, 2022, 2024)
- * PhD & Masters Theses & Dissertations committees (7 PhD, 2 Masters)

Reviewer	Music Perception; Journal of New Music Research; Psychomusicology: Music, Mind, and Brain; Music & Science; Empirical Musicology Review; Music Analysis; Musicae Scientiae; PLOS One ISMIR reviewer/metareviewer (International Society of Music Information Retrieval); ICMPC reviewer (International Society for Music Perception and Cognition)
Mentor	Graduate Grant Writing Workshops; CV workshops, McGill University (2016-2018) WiMIR mentor, 2021-24