

Johanna Catriona Devaney

EDUCATION

September 2007-June 2011	McGill University	Montréal, QC
<i>PhD in Music, Music Technology area</i>		
Dissertation: An empirical study of the influence of musical context on intonation practices in solo singers and SATB ensemble. Advisor: Ichiro Fuginaga. Readers: Jonathan Wild, Daniel Ellis.		
October 2010-March 2011	University of California, Berkeley	Berkeley, CA
<i>Visiting Student Researcher</i>		
Center for New Music and Audio Technologies		
Advisor: David Wessel.		
September 2003-February 2007	Columbia University	New York, NY
<i>MPhil in Music, Music Theory area</i>		
MPhil advisor: Fred Lerdahl.		
September 2000 – November 2002	York University	Toronto, ON
<i>MA in Music, Composition area</i>		
MA thesis: Sound Objects: Approaches to Composition in an Object-Oriented Paradigm.		
Advisor: Michael Coghlan. Reader: David Lidov.		
September 1999 – May 2001	Seneca College	Toronto, ON
<i>Computer Programming Diploma</i>		
September 1995 – June 1999	York University	Toronto, ON
<i>BFA Honours in Music and History (Double Major)</i>		
September 1988-June 2000	Royal Conservatory of Music	Toronto, ON
<i>Private Piano, Oboe, Theory and Composition Instruction</i>		
Studied piano and oboe with Senya Trabushnik and composition with Larysa Kuzmenko.		

EMPLOYMENT HISTORY

September 2012-present	School of Music , The Ohio State University	Columbus, OH
<i>Assistant Professor of Music Theory and Cognition</i>		
■ Teaching undergraduate and graduate courses in music theory (including coordination of core undergraduate theory and aural training courses), advising undergraduate and graduate students in Music Theory and Cognition, and serving on student graduate committees.		
<i>Courses Taught</i>		
■ <i>MUSIC 3421 Music Theory III</i> (AU 2012) – chromatic harmony and classical form		
■ <i>MUSIC 3422 Music Theory IV</i> (SP 2013) – late-nineteenth and twentieth century music theory		
■ <i>MUSIC 8193</i> (SP 2013, AU 2013) – coordination and supervision of GTAs for <i>MUSIC 3422</i>		
■ <i>MUSIC 8839 Music Cognition Lab</i> (SP 2013, AU 2013) – co-taught with David Huron		
July 2011-August 2012	University of California, Berkeley	Berkeley, CA
<i>Postdoctoral Scholar</i>		
Center for New Music and Audio Technologies		
■ Worked with David Wessel on perceptual issues related to music performance analysis.		
March 2009-August 2010	Musically Intelligent Machines	Montréal, QC
<i>Musical Advisor</i>		
■ Provided expertise on music analysis and classification for this music recommendation start-up.		
June 2008-July 2009	Barnard College, Columbia University	New York, NY
<i>Instructor, Pre-College Program</i>		
■ <i>Sounding Off: Music and Counterculture in NYC</i> (Summer 2008, 2009)		
September 2007-June 2011	Schulich School of Music, McGill University	Montréal, QC
<i>Research Assistant for FQRSC Research-Creation Project</i> (April 2008 – June 2011)		
■ Participated in the writing and execution of a 3-year, \$145,000, grant to work on digital recreations and a method for training singers in the tuning system of Nicola Vicentino, a sixteenth century theorist and composer.		

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Teaching Assistant

- MUTH 475 *Philosophy and Aesthetics of Music Production* (Winter 2008)

Research Assistant for Gamut of Early Music on Microfilms (GEMM) project (Sept. 2007 - April 2008)

- Worked on a C and Matlab-based solution for 'bleed through' issues in scanned music.

Instructor

- MUGT 301 *Technology and Media for Music Educators* (Fall 2007)

October 2004–June 2007

International Music Software Trade Association Toronto, ON

Executive Director

- Duties included organisational set-up, day to day running, and webpage design/maintenance.

September 2004–May 2006

Department of Music, Columbia University New York, NY

Teaching Fellow

- Instructor for W1123 *Music Humanities* (Fall 2005, Winter 2006)
- Grader for V2016 *Jazz* (Winter 2005)
- Teaching assistant for W1123 *Music Humanities* (Fall 2004)

September 1999–June 2006

Department of Music, York University

Toronto, ON

Course Director - Contract Faculty

- MUSI 3204 3.0 *History of Music Theory II: Rameau – Schoenberg* (SU 2006)
- MUSI 4151 6.0 *Computer Music* (SU 2006)
- MUSI 1530 6.0 *Rock and Popular Music* (SU 2005)
- MUSI 3210 6.0 *An Introduction to Sonic Architecture and Design* (SU 2003, SU 2004, SU 2005)
- MUSI 2202 3.0 *Harmony* (W 2003)
- MUSI 3120 6.0 *Songwriting and Repertoire* (W 2003)
- MUSI 3310 6.0 *Music in the Modern Era* (F/W 2002-03)
- MUSI 3450 3.0 *Creative Applications of MIDI* (F 2002)
- FA/MUSI 1140 6.0 *Introduction to Electronic and Digital Media* (F/W 2001-02, F/W 2002-03)
- MUSI 3450 3.0 *Pedagogical Applications of Music Software* (W 2001, SU 2003, SU 2004)
- MUSI 3220 3.0 *Introduction to Temperament, Alternate Tunings and Microtonal Tuning Systems Using Computers and Synthesizers* (W 2000)
- MUSI 3460 3.0 *Music Engraving and Notation Using Computers* (F 1999, F 2000, F 2001, SU 2002, SU 2003, SU 2004, SU 2005)

Computer Lab Monitor (September 1998- December 2001)

- Lab monitor of both a MIDI computer lab and a digital audio and synthesizer lab. Demonstrated and instructed on *Cubase, Finale, Reason, Reaktor*; recording equipment and hardware synthesizers.

July 1997 – June 2006

Ottaviano Scoring and Design

Thornhill, ON

Music Score Copyist – Contract Based (October 1997–June 2006)

Web Page Design – Contract Based (July 1997–August 2003)

June 1997–June 2000

Roy Music Centre

Thornhill, ON

Piano Teacher

- One-on-one instruction of pupils ranging in age from pre-school to adult.

November 1993–April 2003

HMV

Thornhill, ON

Part-time Keyholder

- Responsible for opening and closing procedures, classical buying, and customer service.

RESEARCH CONTRIBUTIONS

JOURNAL ARTICLES

Devaney, J. 2013. Estimating onset and offset asynchronies in polyphonic audio-to-score alignment.

Journal of New Music Research. Under review.

Devaney, J., M.I. Mandel, D.P.W. Ellis, and I. Fujinaga. 2011. Automatically extracting performance data from recordings of trained singers. *Psychomusicology*. 21 (1–2): 108–36.

- Devaney, J. and D.P.W. Ellis. 2008. An empirical approach to studying intonation tendencies in polyphonic vocal performances. *Journal of Interdisciplinary Music Studies*. 2 (1-2): 141–56.
- Devaney, J. 2003. Some elements of structure in Elliott Carter's "Insomnia" from *A Mirror on Which to Dwell*. *Ex Tempore*. 11 (2): 85–99.

CONFERENCE PROCEEDINGS (* INDICATES REFEREED PROCEEDINGS PAPER)

- *Devaney, J., M. I. Mandel, and I. Fujinaga. 2012. Study of Intonation in Three-Part Singing using the Automatic Music Performance Analysis and Comparison Toolkit (AMPACT). *Proceedings of the 2012 International Society on Music Information Retrieval Conference (ISMIR)*. 511–6.
- *Devaney, J., M. I. Mandel, and I. Fujinaga. 2011. Characterizing Singing Voice Fundamental Frequency Trajectories. In *Proceedings of the 2011 Workshop on Applications of Signal Processing to Audio and Acoustics (WASPAA)*. 73–6
- Devaney, J., J. Wild, and I. Fujinaga. 2011. Intonation in solo vocal performance: A study of semitone and whole tone tuning in undergraduate and professional sopranos. In *Proceedings of the International Symposium on Performance Science (ISPS)*. 219–24.
- *Burgoyne, J.A., Y. Ouyang, T. Himmelman, J. Devaney, L. Pugin, and I. Fujinaga. 2009. Lyric extraction and recognition on digital images of early music sources. In *Proceedings of the 2009 International Society on Music Information Retrieval Conference (ISMIR)*. 723–7.
- *Devaney, J., M.I. Mandel, and D.P.W. Ellis. 2009. Improving MIDI-audio alignment with acoustic features. In *Proceedings of the 2009 Workshop on Applications of Signal Processing to Audio and Acoustics (WASPAA)*. 45–48.
- *Devaney, J. and D.P.W. Ellis. 2009. Handling asynchrony in audio-score alignment. In *Proceedings of the 2009 International Computer Music Conference (ICMC)*. 29–32.
- *Burgoyne, J.A., J. Devaney, L. Pugin, and I. Fujinaga. 2008. Enhanced bleed-through correction for early music documents. In *Proceedings of the 2008 International Conference on Music Information Retrieval (ISMIR)*. 407–12.
- Devaney, J. and D. P. W. Ellis. 2007. An empirical approach to studying intonation tendencies in choral performances. In *Proceedings of the 2007 Conference on Interdisciplinary Musicology (CIM)*.
- Devaney, J. 2006. A methodology for the study and modeling of choral intonation practices. In *Proceedings of the 2006 International Conference on Music Perception and Cognition (ICMPC)*.
- *Devaney, J. 2003. An algorithmic approach to composing for flexible intonation ensembles. In *Proceedings of the 2003 International Computer Music Conference (ICMC)*. 215–7.
- *Devaney, J. 2003. Reasonable influences: The advantages and obstacles encountered with commercial software. In *Proceedings of the 2003 International Computer Music Conference (ICMC)*. 299–300.

CONFERENCE PAPER AND POSTER PRESENTATIONS (ALL REFEREED ABSTRACTS)

- Devaney, J. 2013. Estimating onset and offset asynchronies in polyphonic audio-to-score alignment. Poster presented at *Workshop on Speech and Audio in the Northeast (SANE)*.
- Devaney, J. and D. Wessel. 2013. Pitch perception of time-varying sung tones. Poster presented at *Society for Music Perception and Cognition conference*.
- Devaney, J., J. Hockman, J. Wild, P. Schubert, and I. Fujinaga. 2013. Diatonic semitone tuning in two-part singing. Paper presented at *Society for Music Perception and Cognition conference*.
- Devaney, J. 2013. A study of intonation tendencies of solo versus ensemble singing. Paper presented at the *Performance Studies Network Second International Conference*.
- Devaney, J., J. Hockman, J. Wild, P. Schubert, and I. Fujinaga. 2012. Semitones tuning in vocal performance. Paper presented at the sixth conference on the *Physiology and Acoustics of Singing*.
- Devaney, J., J. Wild, P. Schubert, and I. Fujinaga. 2011. A study of intonation tendencies in a professional SATB ensemble. Paper presented at the *Conference on Interdisciplinary Musicology: Performance*.
- Devaney, J., J. Wild, P. Schubert, and I. Fujinaga. 2011. How do Singers Tune? Paper presented at the *Society of Music Perception and Cognition conference*.
- Devaney, J. and I. Fujinaga. 2010. AMPACT: Automatic Music Performance Analysis Toolkit. Poster presented at the annual meeting of the *Society of Music Theory*.
- Devaney, J., J. Wild, P. Schubert, and I. Fujinaga. 2010. Exploring the relationship between voice leading, harmony, and intonation in a cappella SATB vocal ensembles. Paper presented at the *International Conference on Music Perception and Cognition*.
- Devaney, J., J. Wild, P. Schubert, and I. Fujinaga. 2010. Horizontal and vertical intonation tendencies in SATB ensembles. Paper presented at the fifth conference on the *Physiology and Acoustics of Singing*.

- Devaney, J., J. Wild, P. Schubert, and I. Fujinaga. 2010. What can expressive performance studies tell us about the organization of musical materials? Poster presented at the *Indiana University Symposium of Research in Music Theory: "This is your brain on music"*.
- Devaney, J., J. Wild, and I. Fujinaga. 2009. Intonation tendencies in solo a cappella performances. Poster presented at *Society for Music Perception and Cognition conference*.
- Devaney, J. 2009. Intonation tendencies in solo a cappella performances. Paper presented at the *Indiana University Symposium of Research in Music Theory: Special Symposium on Performance and Analysis*.
- Devaney, J. and J. Wild. 2009. Empirical, historical and speculative approaches to intonation. Paper presented at the fourth conference on the *Physiology and Acoustics of Singing*.
- Devaney, J., I. Fujinaga, and D.P.W. Ellis. 2008. Intonation tendencies in polyphonic vocal ensembles. Paper presented at the *Digital Music Research Network Workshop (DMRN+3)*.
- Devaney, J. 2008. "Tonality's gravitational pull": Intonation as an empirical measure of melodic attraction. Paper presented at the annual meeting of the *Society of Music Theory*.
- Devaney, J. and I. Fujinaga. 2008. Assessing the role of sensory consonance in trained musicians' tuning preferences. Poster presented at the *International Conference on Music Perception and Cognition*.
- Devaney, J. 2008. The potential of recordings in testing quantitative aspects of music theories. Paper presented at the annual meeting of the *Canadian University Music Society*.
- Devaney, J. 2008. "Tonality's gravitational pull": Intonation as an empirical measure of melodic attraction. Paper presented at the 2008 *McGill Music Student Symposium*.
- Devaney, J. 2006. Reflections on the application of empirical methodologies on the study of expressive elements in performance. Paper presented at the annual meeting of the *Canadian University Music Society*.
- Devaney, J. 2000. Music as propaganda: The function and style of civic music in late Renaissance Venice. Paper presented at the annual meeting of the *Canadian University Music Society*.

BOOK REVIEWS

- Devaney, J. 2005. Review of *Empirical Musicology* by E. Clarke and N. Cook (Eds.) *Current Musicology*. 79/80: 271–82.

RESEARCH PAPERS

- Devaney, J. 2005. Pitch spelling: Towards a more holistic generalized spelling algorithm. MA Paper. Columbia University.
- Devaney, J. 2002. Sound objects: Approaches to composition in an object-oriented paradigm. MA Thesis. York University.
- Devaney, J. 1999. Music as propaganda: The style and function of civic music in late Renaissance Venice. BA Honours Thesis. York University.

INVITED TALKS AND OTHER RESEARCH ACTIVITY

- Devaney, J. 2013. Developing a symbolic music representation inspired by speech recognition. Talk at *CIRMMT Workshop on symbolic music processing, semantic audio, and music information retrieval*.
- Devaney, J. 2013. Classroom teaching videos for job applications. Presenter in Professional Development Committee's special session at the *Society for Music Theory* annual meeting.
- Devaney, J. 2013. Automatic Music Performance Analysis and Comparison Toolkit (AMPACT). Talk at *Advancing Interdisciplinary Research in Singing 5th Annual Meeting*.
- Devaney, J. 2013. Cognitively motivated representations of symbolic music. Paper presented at *Cognitively Based Music Informatics Research (CogMIR) seminar*.
- Devaney, J. 2013. Empirically Evaluating Vocal Intonation. Talk at the Science of Music, Auditory Research and Technology (SMART) Lab in the Department of Psychology at Ryerson University.
- Devaney, J. 2013. Empirically Evaluating Vocal Intonation. Talk at *CIRMMT Workshop on empirical, analytical and speculative approaches to tuning*.
- Devaney, J. 2012. Automatic Music Performance Analysis and Comparison Toolkit (AMPACT). Talk at *Northeast Music Cognition Group*.
- Devaney, J. 2011. Consonance and Dissonance. Invited participant at roundtable at the *Conference on Interdisciplinary Musicology: Performance*.
- Devaney, J., J. Wild, P. Schubert, and I. Fujinaga. 2010. Intonation in SATB vocal ensembles. Talk at *Advancing Interdisciplinary Research in Singing 2nd Annual Meeting*.
- Devaney, J. 2010. Empirical evaluation of intonation practices in singers and their relationship to musical context. Talk at *Northeast Music Cognition Group*.

Johanna Catriona Devaney

- Devaney, J. 2009. Techniques for extracting performance data from audio recordings. Talk at *Symposium on Empirical Methods for Music Theorists*.
- Devaney, J. 2009. Automatic extraction of performance data from recordings. Invited talk at *NYU Music Technology Colloquium*.
- Devaney, J. 2009. An overview of empirical performance analysis. Talk at the *CIRMMT Workshop on Expressive Performance*.
- Devaney, J. 2009. Expressive performance. Guest lecture in *MUMT 621: Music Information Acquisition, Preservation, and Retrieval*, McGill University.
- Devaney, J. 2006. Choral intonation practices: an investigation and a model. Student presentation at the *2006 International Summer School in Systematic Musicology*.
- Devaney, J. 2006. Intonation and expression: a study and model of choral intonation practices. Student presentation at the *2006 S2S² Summer School in Sound and Music Computing*.
- Devaney, J. 2002. Realizing temperaments: The recreation of historical tuning systems with commercial software. Talk for the *Computer and Music Reading Group*, University of Toronto.

SPECIAL SESSION AND SYMPOSIA ORGANIZATION

- Devaney, J. 2012. *SMT-MIG Roundtable on Challenges of Computational Music Research*.
- Devaney, J. and P. Martens. 2009. *Post-SMT Symposium on Empirical Methods for Music Theorists*.
- Devaney, J. and M. Valieres. 2009. Listening through time: Psychological and music-theoretical perspectives on the temporal dynamics of listening. Special session at *Society of Music Theory* meeting
- Devaney, J. and D. Eck. 2009. *CIRMMT Workshop on Expressive Performance*.

COMPOSITIONS

- Happiness on a Spring* (2004) for Violin and Live Electronic (Max/MSP + Jitter). Premiered at Columbia Computer Music Center Concert, The Tank, New York, NY (January 31, 2004).
- Partial Objects* (2002) for String Quartet. Premiered at the Madawaska String Quartet Workshop, Music Gallery, Toronto, ON (November 2, 2002).
- Fiscal Decisions* (2002) for Tape. Premiered at The Money Project Off-International Computer Music Conference Concert, Gutenberg, Sweden (September 2002).
- Reajet* (2002) for Tape.
- deMusica* (2002) for 12-part choir.
- Pure Gong - :GONGNOG:* (2002) for Piano and Tape. Music Gallery, Toronto (March 19, 2002).
- Pure Gong - Live Gong* for gong and Electronics (PD). Premiered at York University Department of Music Concert, Dacary Hall, Toronto, ON (November 21, 2001).
- John Cage's 4'33* Remixed (2001) for Piano and Live Electronics (PD). Premiered at York University Department of Music Concert, Dacary Hall, Toronto, ON (October 17, 2001).
- Door Vinaigrettes* (2001) for Tape. Premiered at The Door Project Off-International Computer Music Conference Concert, Havana, Cuba (September 22, 2001).

PEER REVIEW

- Program Committee Member for Music Theory Midwest conference (2014)
- Editorial Board member of *Intégral* (2013)
- Reviewer for the Society for Music Perception and Cognition Student Award (2013)
- Program Committee Chair for Midwestern Music Cognition Symposium (2013)
- Reviewer for the Conference on Mathematics and Computation in Music (2013)
- Reviewer for the *Journal of Interdisciplinary Music Studies* (2013)
- Reviewer for *Music Perception* (2012–13)
- Reviewer for the *Journal of New Music Research* (2012)
- Reviewer for IEEE Workshop on Applications on Signal Processing to Acoustics and Audio (2011)
- Program Committee Member for , McGill University Music Graduate Student Symposium (2010)
- Reviewer for the International Conference on Music Information Retrieval (2009–13)
- Program Committee Member for the CIRMMT Student Symposium (2008–09)
- Reviewer for the Student Conference in Systematic Musicology (2008, 2011)

PROFESSIONAL SERVICES

- Advisor for SMT Committee for Status of Women Proposal Advising Program (2013)
- STEAM Factory core committee member, Ohio State University (2013–present)

Secretary of the Society of Mathematics and Computation in Music (2012–present)
 Chair, Society for Music Theory Music Informatics Interest Group (2011–present)
 Professional Development Committee, Society for Music Theory (2009–2012)
 Listserv manager for the Society of Math and Computing in Music discussion list (2009–present)
 Equity Commissioner, Post-Graduate Students' Society, McGill University (2009–10)
 Joint Senate-Board Committee on Equity, McGill University (2009–10)
 Music Technology Colloquium Coordinator, McGill University (2008–9)
 Student Representative to the Board, CIRMMT (2008–9)
 Committee on Student Grievances, McGill University (2008–9)
 Graduate Student & Postdoctoral Employment Committee, McGill University (2008–9)
 Harassment Policy Review Committee, McGill University (2008–9)
 Carrie M. Derick Award for Excellence in Graduate Supervision & Teaching Cttee., McGill (2008)
 Honorary Degrees and Convocations Committee, McGill University (2008)
 Music Information Archiving and Retrieval Axis Student Coordinator, CIRMMT (2007–8)
 Post-Graduate Students' Society Councilor, McGill University (2007–8)
 Music Graduate Students' Society Representative, McGill University (2007–8)
 Information Systems and Technology Committee, Schulich School of Music, McGill (2007–8)
 Music Theory Area student representative, Columbia University (2005–6)
 Music Department representative on Graduate Student Advisory Council, Columbia (2005)
 Technologically Enhanced Learning round table, Faculty of Fine Arts, York University (2002–3)
 Communications Officer, CUPE Local 3903 (2002–3)
 Faculty of Fine Arts Committee on Arts and Technology, York University (2002–3)
 Organizing Committee for International Women's Day Rally, Toronto (2002)
 Senate Committee on Technological Accommodation Working Group, York University (2001–3)
 Senate Committee on Academic Computing and Library Senate Committee, York (2001–2)

AWARDS AND FELLOWSHIPS

SSHRC Postdoctoral Fellowship (2011–13) - \$38,000 CDN/yr + \$5,000 CDN research budget
 CIRMMT Inter-Centre Research Exchange Funding (2010–11) - \$4,000 CDN
 SEMPRES Travel Award (2010) - \$250 US
 FQRSC Student Research Stipend (2008–11) - \$7,500/yr CDN
 Joseph-Armand Bombardier Canadian Graduate Scholarship (2008–11) - \$35,000/yr CDN
 Schulich School of Music Travel Awards (2009–10) - \$500 CDN (2009), \$400 CDN (2010)
 CIRMMT Travel Awards (2008–10) - \$500 CDN (2008), \$500 CDN (2009), \$1000 CDN (2010)
 CIRMMT Student Award (2008–9) - \$1,000 CDN
 McGill Alma Mater Travel Awards (2008) - \$750 CDN
 McGill University Schulich Scholarship (2007–8) - \$10,000 CDN
 Columbia University GSAS Summer Fellowship (2006) - \$3,500 US
 Columbia University Teaching with Technology Fellowship (2005–6) - \$2,500 US
 Columbia University GSAS Faculty Fellowship
 (2005–6) - \$20,000 (stipend) + \$14,724 (tuition and fees) US
 (2004–5) - \$19,000 (stipend) + \$31,346 (tuition and fees) US
 (2003–4) - \$18,000 (stipend) + \$30,314 (tuition and fees) US
 Ontario Graduate Scholarship (2001–2) - \$12,000 CDN (2000–1) and \$15,000 CDN (2001–2)
 York University Graduate Entrance Scholarship (2000–1) - \$3,000 CDN
 York University Dean of Fine Arts Commission for Composition (2000) - \$500 CDN
 York University Undergraduate Continuing Scholarship (1997–8) - \$1,000 CDN
 Forsters Insurance Company Undergraduate Scholarship (1995–9) - \$1,000/yr CDN
 York University Undergraduate Entrance Scholarship (1995–6) - \$1,500 CDN

SOCIETY MEMBERSHIPS AND RESEARCH AFFILIATIONS

Advancing Interdisciplinary Research in Singing (AIRS)
 Ohio State University's Center for Cognitive and Brain Sciences (CBCS)
 Institute of Electrical and Electronics Engineers (IEEE)
 Society for Math and Computing in Music (SMCM)
 Society for Music Perception and Cognition (SMPC)
 Society for Music Theory (SMT)