# **CURRICULUM VITAE**

# Ichiro Fujinaga

555 Sherbrooke Street West, Montréal, Québec, Canada H3A 1E3 Office: 514.398.4535x00944 Fax: 514.398.8061

Email: ichiro.fujinaga@mcgill.ca Homepage: http://www.music.mcgill.ca/~ich

Born:	Eukuoka Iana	n 1 April 1056 (	(Canadian citizen)
DOTH:	rukuuka, japa	.II. I ADIII 1930 (	Canadian Chizeni

# Education:

1989–97	McGill University	Ph.D.	Music Technology
1982-89	McGill University	M.A.	Music Theory
1979-82	University of Alberta	B.Mus.	Theory and Percussion
1975–79	University of Alberta	B.Sc.	Applied Mathematics in
			Computing Science, Honors

1974 High School Matriculation, Honors

**Current Position:** Associate Professor (2005–), Chair, Music Technology Area (2002–3, 2009–12,

2002– 2014–5, 2017–8), Associate Dean of Research and Administration (2016–7), Schulich

School of Music, McGill University

Teach undergraduate and graduate courses in Music Technology Area. Other duties

include thesis supervision, administration, and research.

**Research Interests:** Optical music recognition, digital prosopography, pattern recognition, machine

learning, music perception, digital signal processing, sound quality, genetic algorithms, music information acquisition, preservation, and retrieval

#### **Academic Committees:**

McGill (Music) Digital Rights Management Committee (Chair: 2016-7)

CIRMMT Executive Committee (2016–7)

McGill Teaching and Learning Spaces Working Group (2016–7)

McGill University Teaching Labs Working Group (2016–7)

McGill Research Advisory Council (2016–7)

McGill Prizes and Awards Coordinating Committee (2016–7)

McGill (Music) Faculty Executive Committee (2016–7)

McGill (Music) Departmental Tenure Committee (2015-6)

McGill (Music) Academic Committee on Teaching and Programs (2012-4)

McGill (Music) Reappointment Committee (2014)

McGill University Tenure Committee for the University Libraries (2011–3)

McGill Web Management System Migration Steering Committee (2011–3)

McGill Music Library Advisory Committee (2010–5, Chair: 2013–5)

McGill Senate (2006–8)

CIRMMT Board of Directors (2005–15)

McGill (Music) Technical Committee on Network Management and Development (Chair: 2004-8)

CIRMMT Executive Committee (2003–4, Chair: 2009–10)

McGill Music Faculty Position Search Committee (2003, 2005, 2010)

Dean's Essay Competition Selection Committee (2003, 2005–6, 2008)

McGill (Music) Committee of Area Chairs (2002–3, 2009–12, 2014–5)

McGill (Music) Information System and Technology Committee (2002-8)

McGill (Music) Subcommittee of Graduate Studies (2002-)

Peabody Working Group on the Academic Issues (2001–2)

Peabody CFO Search Committee (2000)

Provost's Undergraduate Research Awards Selection Committee (2000–2)

JHU Technology Fellowship Review Committee (2001–2)

JHU Subcommittee on Electronic and Distance Education (1996–2002)

Peabody Academic Council (1997–2001)

Peabody Committee on Advanced Technologies (1994–2000)

JHU Diversity Leadership Council (1997–9)

Peabody Special Committee on Student Relations (Chair: 1997–9)

Peabody Faculty Assembly (Vice Chair: 1997–9; Chair: 1999–2001)

#### EMPLOYMENT HISTORY

## 2015/12–6/3 **Visiting Professor** (Tsukuba University)

Graduate School of Library, Information, and Media Studies (Prof. H. Terasawa)

## 2008–9 **Visiting Professor** (Tsukuba University)

Graduate School of Library, Information, and Media Studies (Prof. Y. Hiraga)

## 2002–5 **Assistant Professor** (McGill University)

Chair, Music Technology Area (2002–3)

Acting Director, Centre for Interdisciplinary Research in Music Media and Technology (2003/08–2004/11)

## 1999–01 **Principal Consultant** (NSF Digital Libraries Initiative Grant)

Eisenhower Library, Johns Hopkins University

Convert digitally scanned 29,000 pieces of American popular sheet music into computer-readable format and MIDI.

# 1995–97 **Visiting Professor** (Japan Advanced Institute of Science and Technology)

# (summers) Department of Information Science (Prof. S. Horiguchi)

Independent research, conduct seminars, and direct graduate students in multi-media application research.

## 1993–02 **Faculty**

Computer Music Department

Associate Director of Information Technology

Peabody Conservatory of Music, Johns Hopkins University

Teach graduate courses including Digital Music Programming, Synthesis Theory, and seminars on Csound, Max/Pd, SuperCollider, Web/HTML, and Unix. Other duties include graduate student research consulting and research.

#### 1988–93 Full-time Research Assistant

Faculty of Music, McGill University

Develop an optical music recognition system. Environment: Objective-C, C, Open Look, NeWS (NeXT, Sun 386i).

## 1986–93 **Programmer/Consultant**

Department of Psychology (Prof. D. J. Ostry), McGill University

Maintain and develop various programs for analyzing scientific data, including interactive 3D graphic displays. Environment: Microsoft C, HALO (IBM PC).

## 1984–93 Systems Analyst

Faculty of Music, McGill University

Installation and maintenance of Unix network and PCs in the faculty used for research and administration purposes. Consultation and tutorials for all users. Make purchase recommendation to the faculty. Custom programming.

#### **Research Grants:**

- PI, ComputeCanada, Resources for Research Groups Grant (2017–8) \$2,560
- PI, FRQSC, Projets franco-québécois en sciences humaines et sociales "Recherche d'Information dans les corpus de musique notée" (2016–20) \$208,176
- Collaborator, Andrew W. Mellon Foundation "Enhancing Discovery and Access for Sound Collections" (2016–8) £70,000 (total: £408,411)
- PI, FRQSC, Research Team Support Grant "Music Information, Research, and Infrastructure" (2016–20) \$602,118
- PI, ComputeCanada, Resources for Research Groups Grant (2016–7) \$2,560
- Co-PI, SSHRC Connection Grant "The Music Encoding Conference 2016" (PI: Andrew Hankinson) (2015–16) \$24,027
- PI, SSHRC Partnership Grant "Single Interface for Music Score Searching and Analysis" (2014–21) \$2,726,697
- PI, SSHRC Insight Grant "Cantus ultimus: Building the ideal online plainchant research environment" (2014–19) \$499,694
- PI, FRQSC, Emerging Team Grant "Music Information, Research, and Infrastructure" (2014–17) \$54,963
- Co-PI, FQRSC Programme Regroupements Stratégiques: "Centre for Interdisciplinary Research in Music Media and Technology" (PI: Isabelle Cossette) (2014–20) \$1,459,200
- Co-PI, SSHRC Partnership Grant "International institute for critical studies in improvisation: a partnered research institute" (PI: Ajay Heble) (2014–21) \$2,500,000
- PI, SSHRC Partnership Grant Letter of Intent "Single Interface for Music Score Searching and Analysis" (2013–4) \$20,000
- Co-PI, NEH Digital Humanities Start-up Grant: Level-II "Digital Prosopography for Renaissance Musicians: Discovery of Social and Professional Network" (PI: Susan F. Weiss) (2013–4) \$54,466US
- Co-PI, SSHRC Public Outreach Grant "Humanities dissemination & Making Publics using the Resource Description Framework" (PI: Matthew Milner) (2012–3) \$66,017
- Co-PI, SSHRC Digging into Data Challenge Grant "Electronic Location of Vertical Interval Successions" (PI: Julie Cumming) (2012–4) \$125,000
- Co-PI, SSHRC Insight Development Grant "Optical Neume Recognition Project" (PI: Jennifer Bain) (2012–4) \$74,633
- PI, SSHRC Insight Development Grant "Probabilistic Model for Music Content Analysis" (2011–3) \$73,998
- McGill Internal Paper Presentation Grant (2011) \$1,500
- PI, SSHRC Partnership Development Grant "Single Interface for Music Score Searching and Analysis" (2011–4) \$197,903
- Co-PI, SSHRC Research Creation Grant "The art of harpsichord playing in the digital age: A computer-supported exploration of Couperin, basso continuo, and tuning" (PI: Hank Knox) (2011–4) \$248,925
- PI, SSHRC Standard Research Grant "Optical music recognition of plainchant" (2010–3) \$141,393
- PI, SSHRC Image, Text, Sound and Technology "Tracing the evolution of harmonic idioms in popular music through the late twentieth century" (2010–1) \$49,906
- PI, SSHRC Digging into Data Challenge Grant "Structural Analysis of Large Amounts of Music Information" (2010–1) \$53,966
- Co-PI, SSHRC Major Collaborative Research Initiatives Program "Advancing Interdisciplinary Research in Singing" (PI: Annabel J. Cohen) (2009–15) \$2,298,474
- PI, FQRSC Programme soutien aux équipes de recherché "Evaluation perceptive de la qualité audio" (2008–10) \$59,434
- PI, FQRSC Programme appui à la recherche-création "Les techniques vocales du repertoire microtonale historique adaptées à la pratique moderne" (2008–11) \$143,756
- Co-PI, Andrew W. Mellon Foundation "Networked Environment for Music Analysis" (2008–10) \$90,000US (PI: Stephen Downie, total: \$1,200,000)
- PI, SSHRC Image, Text, Sound and Technology "Incorporating lyrics into optical recognition technology for early vocal music sources" (2008–9) \$49,932
- PI, The Invitation Fellowship for Research in Japan (Long-Term), Japan Society for the Promotion of Science "Usability and cultural issues in designing digital music libraries" (2008–9) \$35,000

- Co-PI, NSERC Major Resources Support Program: Infrastructure "Centre for Interdisciplinary Research in Music Media and Technology" (PI: Stephen McAdams) (2007–9) \$57,630
- Co-PI, SSHRC Major Collaborative Research Initiatives Program "Improvisation, Community, and Social Practice" (PI: Ajay Heble) (2007–13) \$2,663,619
- PI, SSHRC Image, Text, Sound and Technology "Enhancing optical music recognition technology of Early Music prints and manuscripts for musicological applications" (2007–8) \$49,943
- PI, Audio-Visual Preservation Trust of Canada Music Memories Program "Schulich School of Music Archival Digitization Project" (2006–7) \$9,971
- PI, Daniel Langlois Foundation Grant "Image-to-Audio conversion of phonograph records" (2006–7) \$35,000
- PI, SSHRC Image, Text, Sound and Technology: Networking Grant "Metadata infrastructure for sound recordings" (2006–7) \$49,976
- PI, SSHRC Standard Research Grant "Feasibility of digitizing Early Music on microfilms for the creation of large-scale content-searchable database" (2005–8) \$145,838
- Co-PI, SSHRC-CURA (Community-University Research Alliances) "Documentation and Preservation of Media Art Heritage: Research and Case Studies" (PI: Alain Depocas) (2005–10) \$1,000,000
- PI, CFI New Opportunities Grant "Distributed Digital Music Libraries" (2005–10) \$597,748
- PI, Richard M. Tomlinson Digital Library Innovation and Access Award "Digitization of Edelberg Handel Collection: A Pilot Project" (2003–5) \$15,198
- PI, FQRSC Établissement de nouveaux-chercheurs volet individual "Digitization of Vinyl Phonograph Records with Automatic Generation of Text and Metadata" (2003–6) \$64,628
- PI, McGill Research Development Grant "Distributed Digital Music Library" (2003) \$38,500
- Co-PI, FQRSC Regroupements stratégiques "Centre for Interdisciplinary Research in Music Media and Technology" (2003–7) \$792,000
- Co-PI, NSF Information Technology Research Grant "A Data Capture Framework and Testbed for Cultural Heritage Materials" (PI: Sayeed Choudhury) (2002–6) \$1,500,000US
- Co-PI, IMLS National Leadership Grant "Digital Audio Archives Project" (PI: Sayeed Choudhury) (2004–7) \$229,352US
- Co-PI, NSF Digital Libraries Initiative Grant "Digital Workflow Management: The Lester S. Levy Digitized Collection of Sheet Music, Phase Two" (PI: Sayeed Choudhury) (1999–2002) \$530,000US
- Co-PI, Intel Technology for Education Grant "Scalable High Performance Computing Applications" (PI: Alex Szalay) (1999–2001) Peabody: \$154,000US (JHU: \$1,700,000US)

# Awards:

Transforming Musicology Challenge Paper Prize (Digital Libraries 2014: Digital Library for Musicology Workshop)

The ISMIR (International Society for Music Information Retrieval) 2006 Outstanding Paper Award with C. McKay (\$500)

Literati Awards for Excellence: Outstanding paper (2004 Emerald Publishing)
Best Presentation Award (2000 International Computer Music Conference)

#### **Professional Affiliations:**

Board member, Music Encoding Initiative (2015–8)

Advisory Panel, "Transforming Musicology," an AHRC Large Grant project (2013–7)

Member, Centre de recherche interuniversitaire sur les humanités numériques (CRIHN) (2013–)

Guest Editor, Signal Processing: Special Section: Ethnic Music Audio Documents (2010)

Advisory Board, IMLS funded research: *Improving Access to Digital Music through Content-based Analysis.* (2009–11)

General Co-Chair, International Society for Music Information Retrieval Conference (2009)

Advisory Board, music humana (2008–)

Scientific Advisory Board, International Conference on Music Perception and Cognition (2008)

Reviewer, Canadian Association of Information Science Annual meeting (2008)

Advisory Board, Journal of Interdisciplinary Music Studies (2007–)

Advisory Board, Critical Studies in Improvisation (2007–)

Guest Editor, EURASIP Journal on Advances in Signal Processing, A Special Issue on Music Information Retrieval Based on Signal Processing (2007)

Paper Committee, co-chair, International Computer Music Conference (2006)

Academic Committee, Judaic Sound Archives, Florida Atlantic University (2005–)

FolkwaysAlive Academic Advisory Committee, University of Alberta (2005–6)

Consultant, Mellon Foundation Research Grant: A Scoping and Feasibility Study towards a Corpus of Encoded Scores of Classical Music (2005)

Journal of Music and Meaning, Editorial Board (2004–)

Review Committee, SSHRC-MCRI Mid-term review (2004)

Local Organization Committee and Technical Committee, New Interfaces for Musical Expression Conference (2003)

Paper Committee, co-chair, Web Delivery of Music Conference (2003)

Grants Review Committees: FQRSC Programme d'établissement de nouveaux chercheurs-créateurs (2003); FQRSC Programme de soutien aux regroupements de recherche-création (2003)

Steering Committee, International Conference on Music Information Retrieval (2001–9)

Final Papers Selection Panel, International Computer Music Conference (1999)

Computing in Musicology, Editorial Advisor (1998–)

International Musicological Society (1997–)

Manager of Music Theory Online, Society of Music Theory (1997–2007)

Local Organization Committee, American Musicological Society Meeting (1996)

International Computer Music Association (1989–)

Grant reviewer for American Association of the Advancement of Science (USA), Fonds de recherche du Québec – Société et culture (FRQSC), FWF Austrian Science Fund, Engineering and Physical Sciences Research Council (UK), IWT (Belgium), National Science and Engineering Council of Canada (NSERC), Netherlands Organization for Scientific Research, Physical Science Council (The Netherlands), Research Grants Council (Hong Kong), Social Sciences and Humanities Research Council of Canada (SSHRC)

Paper reviewer for Computer Music Journal, Proceedings of IEEE, Journal of New Music Research, Critical Studies in Improvisation, Signal Processing, IEEE Transaction on Pattern Analysis and Machine Intelligence, EURASIP Journal on Audio, Speech, and Music Processing, EURASIP Journal on Image and Video Processing, Journal of Electronic Imaging, International Journal on Document Analysis and Recognition

Program Committees:

IAPR International Conference on Document Analysis and Recognition (2017–)
Conference on Technologies for Music Notation and Representation (2015–); Journées
d'Informatique Musicale (2015), International Workshop on Digital Libraries for Musicology
(2014); Society for Mathematics and Computation in Music (2013); Joint Conference on Digital
Libraries (2010); Computer Music Modeling and Retrieval Conference (2008); Canadian
Association of Information Science Annual meeting (2008); New Interfaces for Musical
Expression Conference (2007–9); AXMEDIS (2006); DAFx (Digital Audio Effects) Conference
(2006); Information Resource Management Association Conference (2005); International
Conference on Automated Production of Cross Media Content for Multi-channel Distribution
(2005); Conference on the Art of Record Production (2005); Web Delivery of Music Conference
(2004); International Society of Music Information Retrieval Conference (2001–); International
Computer Music Conference (1996–2007)

#### **PUBLICATIONS**

## Refereed book chapters

- Fujinaga, Ichiro, Andrew Hankinson, and Laurent Pugin. "Automatic Score Extraction with Optical Music Recognition." In *Current Research in Systematic Musicology*, R. Bader, M. Leman, R. Godoy, Eds. Heidelberg: Springer, 2017. [In press]
- Burgoyne, J. A., I. Fujinaga, and J. S. Downie. 2016. Music information retrieval. In *A New Companion to Digital Humanities*, eds. S. Schreibman, R. Siemens, and J. Unsworth, 213–28. Oxford: Wiley-Blackwell Publishing.
- McKay, C. and I. Fujinaga. 2012. Expressing musical features, class labels, ontologies, and metadata using ACE XML 2.0. In *Structuring Music through Markup Language: Designs and Architectures*, ed. J. Steyn, 48–79. Hershey, PA: IGI Global.
- Weiss, S. F., and I. Fujinaga. 2008. Electronic sound. In *New Technologies and Renaissance Studies*, eds. W. R. Bowen, and R. G. Siemens, 93–100. Tempe, AZ: Iter Inc.
- Fujinaga, I., and S. F. Weiss. 2004. Music. In *Blackwell Companion to Digital Humanities*, eds. S. Schreibman, R. Siemens, and J. Unsworth, 97–107. Oxford: Blackwell Publishing.
- Fujinaga, I. 2004. Staff detection and removal. In *Visual Perception of Music Notation*, ed. S. George, 1–39. Hershey, PA: Idea Group Inc.
- Droettboom, M., I. Fujinaga, and K. MacMillan. 2002. Optical music interpretation. In *Structural, Syntactic, and Statistical Pattern Recognition*, eds. T. Caelli, A. Amin, R. Duin, M. Kamel, and D. de Ridder, 378–86. Berlin: Springer-Verlag.
- Fujinaga, I., S. Moore, and D. S. Sullivan. 1999. Implementation of exemplar-based learning model for music cognition. In *Music, Mind, and Science*, ed. S. W. Yi, 69–81. Seoul: Seoul National University Press.

## Refereed journal papers

- Siedenburg, K., I. Fujinaga, and S. McAdams. 2016. A comparison of approaches to timbre descriptors in music information retrieval and music psychology. *Journal of New Music Research* 45 (1): 27–41. doi:10.1080/09298215.2015.1132737
- Helsen, K., J. Bain, I. Fujinaga, A. Hankinson, and D. Lacoste. 2014. Optical music recognition and manuscript chant sources. *Early Music* 42 (4): 555–8. doi:10.1093/em/cau092
- Goebl, W., R. Bresin, and I. Fujinaga. 2014. Perception of touch quality in piano tones. *Journal of the Acoustical Society of America* 136 (5): 2839–50. doi:10.1121/1.4896461
- Pugin, L., A. Hankinson, and I. Fujinaga. 2012. Digital preservation and access strategies for musical heritage: The Swiss RISM experience. *OCLC Systems and Services* 28 (1): 43–55.
- Rebelo, A., I. Fujinaga, F. Paszkiewicz, A. R. S. Marcal, C. Guedes, and J. S. Cardoso. 2012. Optical music recognition: State-of-the-art and open issues. *International Journal of Multimedia Information Retrieval* 1 (3): 173–90.
- Weiss, S. F., and I. Fujinaga. 2011. New evidence for the origin of kettledrums in Western Europe. *Journal of the American Music Instrument Society* 37: 5–18.
- Devaney, J., M. I. Mandel, D. P. W. Ellis, and I. Fujinaga. 2011. Automatically extracting performance data from recordings of trained singers. *Psychomusicology: Music, Mind & Brain* 21 (1–2): 108–36.
- De Roure, D., K. R. Page, B. Fields, T. Crawford, J. S. Downie, and I. Fujinaga. 2011. An e-Research approach to Web-scale music analysis. *Philosophical Transactions of Royal Society A*. 369: 3300–17.
- Hankinson, A., W. Liu, L. Pugin, and I. Fujinaga. 2011. Diva.js: A continuous document viewing interface. *Code4Lib Journal* 14.
- Canazza, S., A. Camurri, and I. Fujinaga. 2010. Ethnic music audio documents: From preservation to fruition. *Signal Processing* 90 (4): 977–80.
- Dalitz, C., M. Droettboom, B. Czerwinski, and I. Fujinaga. 2008. A comparative study of staff removal algorithms. *IEEE Transactions on Pattern Analysis and Machine Intelligence* 30 (5): 753–66.
- Fujinaga, I., M. Goto, and G. Tzanetakis (eds). 2007, Music information retrieval based on signal processing. EURASIP Journal on Advances in Signal Processing 2007. doi:10.1155/2007/86874
- Riley, J., and I. Fujinaga. 2003. Recommended best practices for digital image capture of musical scores. *OCLC Systems and Services* 19 (2): 62–9. (Literati Awards for Excellence 2004.)
- Weiss, S. F., and I. Fujinaga. 2000. A study of early music on CD-ROM. *Early Modern Literary Studies 5.3 / Special Issue* 4: 3.1–24.
- Choudhury, G. S., C. Requardt, I. Fujinaga, T. DiLauro, E. W. Brown, J. W. Warner, and B. Harrington. 2000. Digital workflow management: The Lester S. Levy digitized collection of sheet music. *First Monday* 5 (6).
- Yoo, L., and I. Fujinaga. 1998. ZETA violin techniques: Limitations and applications. *Journal SEAMUS* 13 (2): 12–5.

- Fujinaga, I., B. Pennycook, and B. Alphonce. 1991. The optical music recognition project. *Computers in Music Research* 3: 139–42.
- Fujinaga, I., B. Alphonce, B. Pennycook, and N. Boisvert. 1989. Optical recognition of music notation by computer. *Computers in Music Research* 1: 161–4.

# Refereed conference papers

- Calvo-Zaragoza, Jorge, G. Vigliensoni, and I. Fujinaga. 2017. Pixel-wise binarization of musical document with convolutional neural networks. In *Proceeding of the IAPR International Conference on Machine Vision Applications (MVA)*, Nagoya, Japan, 336–8.
- Calvo-Zaragoza, J., G. Vigliensoni, and I. Fujinaga. 2016. Document analysis for music scores via machine learning. In *Proceedings of the International Workshop on Digital Libraries for Musicology*, New York, NY, 37–40.
- Laplante, A. and I. Fujinaga. 2016. Digitizing musical scores: Challenges and opportunities for libraries. In *Proceedings of the International Workshop on Digital Libraries for Musicology,* New York, NY, 45–8.
- Vigliensoni, G. and I. Fujinaga 2016. Automatic music recommendation systems: Do demographic, profiling, and contextual features improve their performance? In *Proceedings of the International Society for Music Information Retrieval*, New York, NY, 94–100.
- Hankinson, A., R. Krämer, J. Cumming, and I. Fujinaga. 2016. Cross-institutional music document search. In *Digital Humanities 2016: Conference Abstracts*, Kraków, Poland, 215–7.
- Hankinson, A., and I. Fujinaga. 2016. Cross-institutional music document search. In *Programme of the International Association of Music Libraries, Archives and Documentation Centres (IAML)*, Rome, Italy, 3.
- Weiss, S. F., and I. Fujinaga. 2015. Imagining the musical past: Creating a digital prosopography of Renaissance musicians. In *Proceedings of the Conference on Interdisciplinary Musicology*, Shanghai, China, 70–1.
- Barbosa, J., C. McKay, I. Fujinaga. 2015. Evaluating automated classification techniques for folk music genres from the Brazilian Northeast. In *Proceedings of the Brazilian Symposium on Computer Music*, San Paulo, Brazil, 3–12.
- Fujinaga, I., G. Vigliensoni, and H. Knox. 2015. The making of a computerized harpsichord for analysis and training. In *Abstract of the International Symposium on Performance Science*, 44–5.
- Bain, J., J. Cumming, A. Hankinson, K. Helsen, D. Lacoste, B. Swanson, I. Fujinaga. 2015. The making of the Digital Salzinnes. In *Abstracts of the Annual International Medieval and Renaissance Music Conference*, Brussels, Belgium, 61.
- Fujinaga, I. 2015. A report on digital prosopography of Renaissance musicians project. In *Program and Abstract Book of the Annual Meeting of Renaissance Society of America*, Berlin, Germany, 199.
- Vigliensoni, G., and I. Fujinaga. 2014. Identifying time zones in a large dataset of music listening logs. In *Proceedings of the International Workshop on Social Media Retrieval and Analysis*, 27–32.
- Siedenburg, K., I. Fujinaga, and S. McAdams. 2014. On audio features and evaluation in interdisciplinary music research. In *Proceedings of the Conference on Interdisciplinary Musicology*, Berlin, Germany.
- Charalampos S., A. Hankinson, and I. Fujinaga. 2014. Correcting large-scale OMR data with crowdsourcing. In *Proceedings of the International Workshop on Digital Libraries for Musicology*, London, UK, 88–90.
- Fujinaga, I., A. Hankinson, and J. Cumming. 2014. Introduction to SIMSSA (Single Interface for Music Score Searching and Analysis). In *Proceedings of the International Workshop on Digital Libraries for Musicology*, London, UK, 100–2.
- Fujinaga, I., D. Sears, and A. Hankinson. 2014. Big data for the music perception and cognition community. In *Proceedings of the International Conference on Music Perception and Cognition Asia-Pacific Society for the Cognitive Sciences of Music Joint Conference*, Seoul, South Korea, 263.
- Fujinaga, I. 2014. Digital prosopography of Renaissance musicians: A progress report. In *Program and Abstract Book of the Annual Meeting of Renaissance Society of America*, New York, NY, 197.
- Burlet, G., and I. Fujinaga. 2013. Robotaba guitar tablature transcription framework. In *Proceedings of the International Society for Music Information Retrieval Conference*, Curitiba, Brazil, 517–22.
- Vigliensoni, G., G. Burlet, and I. Fujinaga. 2013. Optical measure recognition in common music notation. In *Proceedings of the International Society for Music Information Retrieval Conference*, Curitiba, Brazil, 125–30.
- Vigliensoni, G., J. A. Burgoyne, and I. Fujinaga. 2013. MusicBrainz for the world: the Chilean experience. In *Proceedings of the International Society for Music Information Retrieval Conference*, Curitiba, Brazil, 131–6.
- Devaney, J., J. Hockman, J. Wild, P. Schubert, and I. Fujinaga. 2013. Diatonic semitone tuning in two-part singing. *Conference Program of the Society of Music Perception and Cognition Conference*, Toronto, ON. 43.

- Fujinaga, I., and A. Hankinson. 2013. SIMSSA: Towards full-music search over a large collection of musical scores. In *Conference Abstracts of Digital Humanities*, Lincoln, NE. 187–9.
- Burgoyne, J. A., J. Wild, and I. Fujinaga. 2013. Compositional data analysis of harmonic structures in popular music. In *Proceedings of the International Conference on Mathematics and Computation in Music*, Montreal, QC, (*Lecture Notes in Artificial Intelligence* 7937), 52–63.
- Cohen, A. J., I. Fujinaga, N. Lefford, T. Leonard, G. Tzanetakis, and C. Vincent. 2013. A digital library to Advance Interdisciplinary Research in Singing. In *Proceedings of the International Congresses on Acoustics. The Journal of the Acoustical Society of America* 133 (5): 3591. DOI:10.1121/1.4806629
- Fujinaga, I. and S. Weiss. 2012. Digital prosopography of Renaissance musicians: Discovery of social and professional network. In *Renaissance Society of America Annual Meeting Program and Abstract Book*, Washington, DC, 357.
- Hankinson, A., W. Liu, L. Pugin, and I. Fujinaga. 2012. Diva: A web-based high-resolution digital document viewer. In *Proceedings of the Theory and Practice of Digital Libraries Conference*, 455–60.
- Hankinson, A., J. A. Burgoyne, G. Vigliensoni, A. Porter, J. Thompson, W. Liu, R. Chiu, and I. Fujinaga. 2012. Digital document image retrieval using optical music recognition. In *Proceedings of the International Society for Music Information Retrieval Conference*, Porto, Portugal, 577–82.
- Burlet, G., A. Porter, A. Hankinson, and I. Fujinaga. 2012. Neon.js: Neume editor online. In *Proceedings of the International Society for Music Information Retrieval Conference*, Porto, Portugal, 121–6.
- Devaney, J., M. I. Mandel, and I. Fujinaga. 2012. A study of intonation in three-part singing using the Automatic music performance analysis and comparison toolkit (AMPACT). In *Proceedings of the International Society for Music Information Retrieval Conference*, 511–6.
- Hockman, J. A., M. E. P. Davies, and I. Fujinaga. 2012. One in the jungle: Downbeat detection in hardcore, jungle, and drum and bass. In *Proceedings of the International Society for Music Information Retrieval Conference*. 169–74.
- Hankinson, A., J. A. Burgoyne, G. Vigliensoni, and I. Fujinaga. 2012. Creating a large-scale searchable digital collection from printed music materials. In *Proceedings of the Advances in Music Information Research*, Lyon, France, 903–8.
- Burgoyne, J. A., J. Wild, and I. Fujinaga. 2011. An expert ground truth set for audio chord recognition and music analysis. In *Proceedings of the International Society for Music Information Retrieval Conference*. Miami, FL. 633–8.
- Ehmann, A., M. Bay, J. S. Downie, I. Fujinaga, and D. De Roure, 2011. Music structure segmentation algorithm evaluation: Expanding on MIREX 2010 analysis and datasets. In *Proceedings of the International Society for Music Information Retrieval Conference*. Miami, FL. 561–6.
- Hankinson, A., P. Roland, and I. Fujinaga. 2011. MEI as a document encoding framework. In *Proceedings of the International Society for Music Information Retrieval Conference*. Miami, FL. 293–8.
- Knight, T., F. Upham, and I. Fujinaga. 2011. The potential for automatic assessment of trumpet tone quality. In *Proceedings of the International Society for Music Information Retrieval Conference*. Miami, FL. 573–8.
- Smith, J. B. L., J. A. Burgoyne, I. Fujinaga, D. De Roure, and J. S. Downie. 28 March 2011. Design and creation of a large-scale database of structural annotations. In *Proceedings of the International Society for Music Information Retrieval Conference*. Miami, FL. 555–60.
- Vigliensoni, G. J. A. Burgoyne, A. Hankinson, and I. Fujinaga. 2011. Automatic pitch detection in printed square notation. In *Proceedings of the International Society for Music Information Retrieval Conference*. Miami, FL. 423–8.
- Hockman, J. A., D. M. Weigl, C. Guastavino, and I. Fujinaga. 2011. Discrimination between phonograph playback systems. *Audio Engineering Society 131st Convention*. New York, NY.
- Devaney, J., M. I. Mandel, and I. Fujinaga. 2011. Characterizing singing voice fundamental frequency trajectories. In *Proceedings of the Workshop on Applications of Signal Processing to Audio and Acoustics*. New Paltz, NY, 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*. 219–24.
- Ehmann, A., M. Bay, J. S. Downie, I. Fujinaga, and D. De Roure. 2011. Exploiting music structures for digital libraries. In *Proceedings of the Joint Conference on Digital Libraries*. Ottawa, ON. 479–80.
- De Roure, D., J. S. Downie, and I. Fujinaga. 2010. SALAMI: Structural analysis of large amounts of music information. In *Proceedings of the UK e-Science All Hands Meeting 2010*, Cardiff, Wales.
- Li, Z., Q. Xiang, J. Hockman, J. Yang, Y. Yi, I. Fujinaga, and Y. Wang. 2010. A music search engine for therapeutic gait training. In *Proceedings of the International Conference on Multimedia*. Firenze, Italy. 627–30.

- 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. In *Proceedings of the International Conference on Music Perception and Cognition*. Seattle. 315–6.
- Hankinson, A., and I. Fujinaga. 2010. An interchange format for optical music recognition applications. In *Proceedings of the International Society for Music Information Retrieval Conference*. Utrecht. 51–6.
- Angeles, B., C. McKay, and I. Fujinaga. 2010. Discovering metadata inconsistencies. In *Proceedings of the International Society for Music Information Retrieval Conference*. Utrecht. 195–200.
- McKay, C., J. A. Burgoyne, J. Hockman, J. Smith, and I. Fujinaga. 2010. Evaluating the performance of lyrical features relative to and in combination with audio, symbolic and cultural features. In *Proceedings of the International Society for Music Information Retrieval Conference*. Utrecht. 213–8.
- Vigliensoni, G., C. McKay, and I. Fujinaga. 2010. Using jWebMiner 2.0 to improve music classification performance by combining different types of features mined from the web. In *Proceedings of the International Society for Music Information Retrieval Conference*. Utrecht. 607–12.
- Hockman, J., and I. Fujinaga. 2010. Fast vs Slow: Learning tempo octaves from user data. In *Proceedings of the International Society for Music Information Retrieval Conference*. Utrecht. 231–6.
- McKay, C., and I. Fujinaga. 2010. Improving automatic music classification performance by extracting features from different types of data. In *Proceedings of the ACM International Conference on Multimedia Information Retrieval*. 257–66.
- 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 International Society for Music Information Retrieval Conference*. Kobe, 723–8.
- Hankinson, A., L. Pugin, and I. Fujinaga. 2009. Interfaces for document representation in digital music libraries. In *Proceedings of the International Society for Music Information Retrieval Conference*. Kobe. 39–44.
- Li, B., and I. Fujinaga. 2009. Optical audio reconstruction for stereo phonograph records using white light interferometry. In *Proceedings of the International Society for Music Information Retrieval Conference*. Kobe, 627–32.
- Hockman, J., M. Wanderley, and I. Fujinaga. 2009. Real-time phase vocoder manipulation by runner's pace. In *Proceedings of the New Interface for Musical Expression Conference*.
- McKay, C., J. A. Burgoyne, J. Thompson, and I. Fujinaga. 2009. Using ACE XML 2.0 to store and share feature, instance and class data for musical classification. In *Proceedings of the International Society for Music Information Retrieval Conference*. Kobe. 303–8.
- Thompson, J., C. McKay, J. A. Burgoyne, and I. Fujinaga. 2009. Additions and improvements to the ACE 2.0 music classifier. In *Proceedings of the International Society for Music Information Retrieval Conference*. Kobe. 435–40.
- Ouyang, Y., J. A. Burgoyne, L. Pugin, and I. Fujinaga. 2009. A robust border detection algorithm with application to Medieval music manuscripts. In *Proceedings of the International Computer Music Conference*. Montreal. 101–4.
- McKay, C., and I. Fujinaga. 2009. jMIR: Tools for automatic music classification. In *Proceedings of the International Computer Music Conference*. Montreal. 65–8.
- Pugin, L., A. Hankinson, and I. Fujinaga. 2009. Building a comprehensive digital library for nineteenth-century Swiss composers. *International Association of Music Libraries Conference*, Amsterdam.
- Burgoyne, J. A., J. Devaney, L. Pugin, and I. Fujinaga. 2008. Enhanced bleedthrough correction for early music documents with recto-verso registration. In *Proceedings of the International Conference on Music Information Retrieval*. Philadelphia. 407–12.
- Pugin, L., J. Hockman, J. A. Burgoyne, and I. Fujinaga. 2008. Gamera versus Aruspix: Two optical music recognition approaches. In *Proceedings of the International Conference on Music Information Retrieval*. Philadelphia. 419–24.
- McKay, C., and I. Fujinaga. 2008. Combining features extracted from audio, symbolic and cultural sources. In *Proceedings of the International Conference on Music Information Retrieval*. Philadelphia. 597–602.
- Devaney, J., and I. Fujinaga. 2008. Assessing the role of sensory consonance in trained musicians' tuning preferences. In *Proceedings of the International Conference on Music Perception and Cognition*. Sapporo.
- Goebl, W., and I. Fujinaga. 2008. Do key-bottom sounds distinguish piano tones? *Proceedings of the International Conference on Music Perception and Cognition*. Sapporo.
- Fujinaga, I., and C. McKay. 2008. ACE: Autonomous Classification Engine. In *Proceedings of the International Conference on Music Perception and Cognition*. Sapporo.
- Pugin, L., J. A. Burgoyne, and I. Fujinaga. 2007. MAP adaptation to improve optical music recognition of early music documents using hidden Markov models. In *Proceedings of International Conference on Music Information Retrieval*. Vienna. 513–6.

- Burgoyne, J. A., L. Pugin, G. Eustace, and I. Fujinaga. 2007. A comparative survey of image binarisation algorithms for optical recognition on degraded musical sources. In *Proceedings of International Conference on Music Information Retrieval*. Vienna. 509–12.
- Burgoyne, J. A., L. Pugin, C. Kereliuk, and I. Fujinaga. 2007. A cross-validated study of modelling strategies for automatic chord recognition in audio. In *Proceedings of International Conference on Music Information Retrieval*. Vienna. 251–4.
- Lai, C., I. Fujinaga, D. Descheneau, M. Frishkopf, J. Riley, J. Hafner, and B. McMillan. 2007. Metadata infrastructure of sound recordings. In *Proceedings of International Conference on Music Information Retrieval*. Vienna. 157–8.
- Li, B., S. de Leon, and I. Fujinaga. 2007. Alternative digitization approach for stereo phonograph records using optical audio reconstruction. In *Proceedings of International Conference on Music Information Retrieval*. Vienna. 165–6.
- McKay, C., and I. Fujinaga. 2007. jWebMiner: A web-based feature extractor. In *Proceedings of the International Conference on Music Information Retrieval*. Vienna, 113–4.
- Pugin, L., J. A. Burgoyne, and I. Fujinaga. 2007. Reducing costs for digitising early music with dynamic adaptation. In *Proceedings of the European Conference on Digital Libraries*. Budapest, Hungary. 471–4.
- Pugin, L., J. A. Burgoyne, and I. Fujinaga. 2007. Goal-directed evaluation for the improvement of optical music recognition of early music prints. In *Proceedings of the Joint Conference on Digital Libraries*. Vancouver, BC. 303–4.
- McKay, C., and I. Fujinaga. 2006. jSymbolic: A feature extractor for MIDI files. In *Proceedings of the International Computer Music Conference*. New Orleans, LA. 302–5.
- Li, B., J. A. Burgoyne, and I. Fujinaga. 2006. Extending Audacity as a ground-truth annotation tool. In *Proceedings of the International Conference on Music Information Retrieval*. Victoria, BC. 379–80.
- Fiebrink, R., and I. Fujinaga. 2006. Feature selection pitfalls and music classification. In *Proceedings of the International Conference on Music Information Retrieval*. Victoria, BC. 340–1.
- McEnnis, D., C. McKay, and I. Fujinaga. 2006. jAudio: Additions and improvements. In *Proceedings of the International Conference on Music Information Retrieval*. Victoria, BC. 385–6.
- McEnnis, D., C. McKay, and I. Fujinaga. 2006. Overview of OMEN. In *Proceedings of the International Conference on Music Information Retrieval*. Victoria, BC. 7–12.
- McKay, C., and I. Fujinaga. 2006. Musical genre classification: Is it worth pursuing and how can it be improved? In *Proceedings of the International Conference on Music Information Retrieval*. Victoria, BC. 101–6. (Outstanding Paper Award: \$500.)
- McKay, C., D. McEnnis, and I. Fujinaga. 2006. A large publicly accessible prototype audio database for music research. In *Proceedings of the International Conference on Music Information Retrieval*. Victoria, BC. 160–3
- Lai, C., and I. Fujinaga. 2006. Data dictionary: Metadata for phonograph records. In *Proceedings of the International Conference on Music Information Retrieval*. Victoria, BC. 1–6.
- Sinclair, S., M. Droettboom, and I. Fujinaga. 2006. Lilypond for pyScore: Approaching a universal translator for music notation. In *Proceedings of the International Conference on Music Information Retrieval*. Victoria, BC. 387–8.
- Lai, C., and I. Fujinaga. 2006. Metadata data dictionary for analog sound recordings. In *Proceedings of the Joint Conference on Digital Libraries*. Chapel Hill, NC. 344.
- Fujinaga, I. and D. McEnnis. 2006. On-demand metadata extraction network (OMEN). 2006. In *Proceedings of the Joint Conference on Digital Libraries*. Chapel Hill, NC. 346.
- Lai, C., and I. Fujinaga. 2006. Archiving David Edelberg's Handel LP Collection: Production workflow and issues in data acquisition. In *Proceedings of the Archiving Conference*. Ottawa, Canada. 40–4.
- Li, B., C. Lai, and I. Fujinaga. 2006. Technical issues in digitization of large online collections of phonograph records. In *Proceedings of the Archiving Conference*. Ottawa, Canada. 151–5.
- Fujinaga, I. 2005. Distributed digital music archives and libraries. *The Journal of the Acoustical Society of America* 188: 2031.
- Fiebrink, R., C. McKay, and I. Fujinaga. 2005. Combining D2K and JGAP for efficient feature weighting for classification tasks in music information retrieval. In *Proceedings of the International Conference on Music Information Retrieval*. London, UK. 510–3.
- Lai, C., B. Li, and I. Fujinaga. 2005. Preservation digitization of David Edelberg's Handel LP collection: A pilot project. In *Proceedings of the International Conference on Music Information Retrieval*. London, UK. 570–5.
- McEnnis, D., C. McKay, I. Fujinaga, and P. Depalle. 2005. Feature extraction: An extensible library approach. In *Proceedings of the International Conference on Music Information Retrieval*. London, UK. 600–3.

- McKay, C., R. Fiebrink, D. McEnnis, B. Li, and I. Fujinaga. 2005. ACE: A framework for optimizing music classification. In *Proceedings of the International Conference on Music Information Retrieval*. London, UK. 42–9.
- Sinyor, E., C. McKay, R. Fiebrink, D. McEnnis, and I. Fujinaga. 2005. Beatbox classification using ACE. In *Proceedings of the International Conference on Music Information Retrieval*. London, UK. 672–5.
- McKay, C., D. McEnnis, R. Fiebrink, and I. Fujinaga. 2005. ACE: A general-purpose classification ensemble optimization framework. In *Proceedings of the International Computer Music Conference*. Barcelona, Spain. 161–4.
- Lai, C., I. Fujinaga, and C. Leive. 2005. The challenges in developing digital collections of phonograph records. In *Proceedings of the Joint Conference on Digital Libraries*. Denver, CO. 332–3.
- Lai, C., I. Fujinaga, and C. Leive. 2005. Metadata for phonograph records: Facilitating new forms of use and access to analog sound recordings. In *Proceedings of the Joint Conference on Digital Libraries*. Denver, CO. 385.
- McKay, C., and I. Fujinaga. 2005. Automatic music classification and the importance of instrument identification. In *Proceedings of the Conference on Interdisciplinary Musicology*. Montreal, Canada.
- Droettboom, M., and I. Fujinaga. 2004. Symbol-level groundtruthing environment for OMR. In *Proceedings of the International Conference on Music Information Retrieval*. Barcelona, Spain. 497–500.
- McKay, C., and I. Fujinaga. 2004. Automatic genre classification using large high-level musical feature sets. In *Proceedings of the International Conference on Music Information Retrieval*. Barcelona, Spain. 525–30.
- Tindale, A., A. Kapur, G. Tzanetakis, and I. Fujinaga. 2004. Retrieval of percussion gestures using timbre classification techniques. In *Proceedings of the International Conference on Music Information Retrieval*. Barcelona, Spain. 541–5.
- Zadel, M., and I. Fujinaga. 2004. Web Services for music information retrieval. In *Proceedings of the International Conference on Music Information Retrieval*. Barcelona, Spain. 478–83.
- Tindale, A., A. Kapur, G. Tzanetakis, and I. Fujinaga. 2004. Towards timbre recognition of percussive sounds. In *Proceedings of the International Computer Music Conference*. Miami, FL. 592–5.
- Young, D., and I. Fujinaga. 2004. Aobachi: A new interface for Japanese drumming. In *Proceedings of the International Conference on New Interfaces for Musical Expression*. Montreal, Canada. 23–6.
- Droettboom, M., K. MacMillan, and I. Fujinaga. 2003. The Gamera framework for building custom recognition systems. In *Proceedings of the Symposium on Document Image Understanding Technologies*. Greenbelt, MD. 275–86.
- Fujinaga, I. and J. Riley. 2002. Best practices for image capture of musical scores. In *Proceedings of the International Conference on Music Information Retrieval*. Paris, France. 261–3.
- MacMillan, K, M. Droettboom, and I. Fujinaga. 2002. Gamera: Optical music recognition in a new shell. In *Proceedings of the International Computer Music Conference*. Göteborg, Sweden. 482–5.
- Droettboom, M., I. Fujinaga, K. MacMillan, G. Choudhury, T. DiLauro, M. Patton, and T. Anderson. 2002. Using Gamera framework for the recognition of cultural heritage materials. In *Proceedings of the Joint Conference on Digital Libraries*. Portland, OR. 11–7.
- Srinivasan, A., D. Sullivan, and I. Fujinaga. 2002. Recognition of isolated instrument by conservatory students. In *Proceedings of the International Conference on Music Perception and Cognition*. Sydney, Australia. 720–3
- MacMillan, K., M. Droettboom, and I. Fujinaga. 2002. Gamera: A Python-based toolkit for structured document recognition. In *Proceedings of Tenth International Python Conference*. Alexandria, VA. 25–40.
- MacMillan, K., M. Droettboom, and I. Fujinaga. 2001. Gamera: A structured document recognition application development environment. In *Proceedings of the International Symposium on Music Information Retrieval*. Bloomington, IN. 15–6.
- Droettboom, M., I. Fujinaga, K. MacMillan, M. Patton, J. Warner, G. Choudhury, and T. DiLauro. 2001. Expressive and efficient retrieval of symbolic musical data. In *Proceedings of the International Symposium on Music Information Retrieval*. Bloomington, IN. 173–8.
- MacMillan, K., M. Droettboom, and I. Fujinaga. 2001. A system to port unit generators between audio DSP systems. In *Proceedings of the International Computer Music Conference*. Havana, Cuba. 103–6.
- MacMillan, K., M. Droettboom, and I. Fujinaga. 2001. Audio latency measurements of desktop operating systems. In *Proceedings of the International Computer Music Conference*. Havana, Cuba. 259–62.
- Bainbridge, D., G. Bernbom, M. W. Davidson, A. P. Dillon, M. Dovey, J. W. Dunn, M. Fingerhut, I. Fujinaga, and E. J. Issacson. 2001. Digital music libraries: Research and development. In *Proceedings of the Joint Conference on Digital Libraries*. Roanoke, VA. 446–8.

- Fujinaga, I. 2001. Adaptive optical music recognition. In *Musicology and sister disciplines: Past, present, future: Proceedings of the 16<sup>th</sup> International Congress of the International Musicological Society,* London 1997, ed. D. Greer. Oxford: Oxford University Press.
- Droettboom, M., and I. Fujinaga. 2001. Interpreting the semantics of music notation using an extensible and object-oriented system. In *Proceedings of the Ninth International Python Conference*. Long Beach, CA. 71–85.
- Fujinaga, I., and K. MacMillan. 2000. Realtime recognition of orchestral instruments. In *Proceedings of the International Computer Music Conference*. Berlin, Germany. 141–3. (Best Presentation Award)
- Fraser, A., and I. Fujinaga, 1999. Toward realtime recognition of acoustic musical instruments. In *Proceedings* of the International Computer Music Conference. Beijing, China. 175–7.
- Yoo, L., and I. Fujinaga. 1999. Comparative latency study of hardware and software pitch-trackers. In *Proceedings of the International Computer Music Conference*. Beijing, China. 36–9.
- Young, J. P., and I. Fujinaga. 1999. Piano master classes via the Internet. In *Proceedings of the International Computer Music Conference*. Beijing, China. 135–7.
- Fujinaga, I. 1998. Machine recognition of timbre using steady-state tone of acoustic musical instruments. In *Proceedings of the International Computer Music Conference*. Banff, Canada. 207–10.
- Boyle, M., I. Fujinaga, and G. Wright. 1998. The computer music department at the Peabody Conservatory of the Johns Hopkins University. In *Proceedings of the International Computer Music Conference*. Banff, Canada. 315–9.
- Fujinaga, I., S. Moore, and D. S. Sullivan. 1998. Implementation of exemplar–based learning model for music cognition. In *Proceedings of the International Conference on Music Perception and Cognition*. Seoul, Korea. 171–9.
- Sullivan, D., S. Moore, and I. Fujinaga. 1998. Real-time software synthesis for psychoacoustic experiments. In *Proceedings of the International Conference on Music Perception and Cognition*. Seoul, Korea. 151–7.
- Yoo, L., S. Moore, D. Sullivan, and I. Fujinaga. 1998. The effect of vibrato on response time in determining the pitch relationship of violin tones. In *Proceedings of the International Conference on Music Perception and Cognition*. Seoul, Korea. 477–81.
- Fujinaga, I. 1997. Adaptive optical music recognition. *Abstract of the International Musicological Society Meeting*. London, UK. 77.
- Fujinaga, I. 1996. Exemplar-based learning in adaptive optical music recognition system. In *Proceedings of the International Computer Music Conference*, 55–6.
- Tobey, F., and I. Fujinaga. 1996. Extraction of conducting gestures in 3D space. In *Proceedings of the International Computer Music Conference*. 305–7.
- Tobey, F., and I. Fujinaga. 1996. Extracting musical expression from conducting gestures. In *Proceedings of the International Conference on Music Perception and Cognition*. Hong Kong. 259–62.
- Hoshishiba, T., S. Horiguchi, and I. Fujinaga. 1996. Study of expression and individuality in music performance using normative data derived from MIDI recordings of piano music. In *Proceedings of the International Conference on Music Perception and Cognition*. Montreal, Canada. 465–70.
- Fujinaga, I. 1995. Exemplar-based music structure recognition. *Workshop Notes for IJCAI–95 Workshop on Artificial Intelligence and Music*. Montreal, Canada.
- Fujinaga, I., and J. Vantomme. 1994. Genetic algorithms as a method for granular synthesis regulation. In *Proceedings of the International Computer Music Conference*. Aarhus, Denmark. 138–41.
- Fujinaga, I. 1993. "An optical music recognition system which learns." in *Enabling Technologies for High–Bandwidth Applications*. J. Maitan, ed. Proc. SPIE 1785. Boston, MA. 210–7.
- Fujinaga, I., B. Alphonce, B. Pennycook, and G. Diener. 1992. Interactive optical music recognition. In *Proceedings of the International Computer Music Conference*. San José, CA. 117–20.
- Fujinaga, I., B. Alphonce, B. Pennycook, and K. Hogan. 1991. Optical music recognition: Progress report. In *Proceedings of the International Computer Music Conference*. Montreal, Canada. 66–73.
- Fujinaga, I., B. Alphonce, and B. Pennycook. 1989. Issues in the design of an optical music recognition system. In *Proceedings of the International Computer Music Conference*. Columbus, OH. 113–6.
- Fujinaga, I., B. Pennycook, and B. Alphonce. 1989. Computer recognition of musical notation. In *Proceedings of the International Conference on Music Perception and Cognition*. Kyoto, Japan. 87–90.
- Alphonce, B., B. Pennycook, I. Fujinaga, and N. Boisvert. 1988. Optical music recognition: A progress report. In *Proceedings of the Small Computers in the Arts*. Philadelphia, PA. 8–12.

## Other publications

- 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*. Toronto, ON.
- McKay, C., and I. Fujinaga. 2007. Style-independent computer-assisted exploratory analysis of large music collection. *Journal of Interdisciplinary Music Studies*. 1 (1): 63–85.
- Choudhury, G. S., T. DiLauro, R. Ferguson, M. Droettboom, and I. Fujinaga. 2006. Document recognition for a million books. *D-Lib Magazine* 12 (3).
- Choudhury, G. S., T. DiLauro, M. Droettboom, I. Fujinaga, and K. MacMillan. 2001. Strike up the score: Deriving searchable and playable digital formats from sheet music. *D-Lib Magazine* 7 (2).
- Fujinaga, I. 1996. Adaptive optical music recognition. Ph.D. Dissertation. McGill University.
- Hoshishiba, T., S. Horiguchi, and I. Fujinaga. 1995. Computer performance of piano music with normative performance data. *Japan Advanced Institute of Science and Technology Research Report.* IS-RR-95-0014I.
- Fujinaga, I. 1991. Automatic recognition and related topics. Computing in Musicology 7: 112–3.
- Fujinaga, I. 1988. Optical music recognition using projections. M.A. Thesis, McGill University.

#### INVITED TALKS

- The 2016 Annual Meeting of the Québec Chapter of CAML, Gatineau, QC, 4 November 2016. Le projet SIMSSA: une interface unique pour la recherche et l'analyse de partitions musicales numérisées. Presented by Audrey Laplante.
- The 3<sup>rd</sup> International Digital Libraries for Musicology workshop (DLfM 2016), New York, NY, 12 August 2016. *The Human History Project: Digital Prosopography of Renaissance Musicians*. Poster with Susan Forscher Weiss.
- The Annual Meeting of Renaissance Society of America, Boston, MA, 1 April 2016. *Web-Based Optical Music Recognition for Renaissance Printed Music with Aruspix and Rodan*. Presented by Andrew Hankinson.
- The 132<sup>nd</sup> Research Center for Knowledge Communities Colloquium, Tsukuba University, Tsukuba, Japan. 17 March 2016. *Human History Project*.
- Hakodate Future University, Hakodate, Japan, 7 March 2016. *Human History Project. The Research Program of the Distributed Digital Music Archives and Libraries Laboratory, Single Interface for Music Score Searching and Analysis.*
- Queen Mary, University of London, London, UK, 18 February 2016. C4DM Seminar: *The Research Program of the Distributed Digital Music Archives and Libraries Laboratory*.
- Fusing Audio and Semantic Technologies for Intelligent Music Production and Consumption (FAST) 2<sup>nd</sup> All-Hands Meeting, Paris, France, 16 February 2016. Keynote Speaker. *Single Interface for Music Score Searching and Analysis*.
- University of Kyoto, Kyoto, Japan. 28 January 2016. *The Research Program of the Distributed Digital Music Archives and Libraries Laboratory*.
- The 129<sup>th</sup> Research Center for Knowledge Communities Colloquium, Tsukuba University, Tsukuba, Japan. 26 January 2016. *Single Interface for Music Score Searching and Analysis*.
- Japan Advanced Institute of Science and Technology (JAIST), Kanazawa, Japan. 21 January 2016. *Human History Project*.
- School of Information Studies Research Seminar, McGill University, Montreal. 13 November 2015. *The Research Program of the Distributed Digital Music Archives and Libraries Laboratory.*
- Universitat Pompeu Fabra, Barcelona, Spain. 5 November 2015. Single Interface for Music Score Searching and Analysis Project.
- University of Alicante, Alicante, Spain. 2 November 2015. Single Interface for Music Score Searching and Analysis Project.
- International Society for Music Information Retrieval Conference, Malaga, Spain. 30 October 2015. Cory McKay and Ichiro Fujinaga. *Building an infrastructure for a 21<sup>st</sup>-century global music library*. (Poster) Refereed.
- CCS Colloquium, University of Virginia. 2 October 2015. 10 Years of Innovation in Music Digitization & Dissemination.
- Department of Music, University of Virginia. 1 October 2015. Single Interface for Music Score Searching and Analysis.
- SSHRC Digital Workshop, Ottawa. 30 September 2015. Music Information Retrieval.
- Oxford eResearch Centre Seminar. 28 July 2015. Research Program of the Distributed Digital Music Archives and Libraries Laboratory.
- Transforming Musicology Event at Oxford eResearch Centre, 27 July 2015. SIMSSA: Single Interface for Music Score Searching and Analysis.
- Digital Humanities at Oxford Summer School 2015, 20 July 2015. SIMSSA: Single Interface for Music Score Searching and Analysis. (Poster)
- International Association of Music Libraries, Archives and Documentation Centres (IAML) / International Musicological Society (IMS) Congress, 23 June 2015. Andrew Hankinson and Ichiro Fujinaga. *An introduction to tools and practices for the Music Encoding Initiative*. Refereed.
- International Association of Music Libraries, Archives and Documentation Centres (IAML) / International Musicological Society (IMS) Congress, 22 June 2015. Susan Forscher Weiss and Ichiro Fujinaga. *Digital prosopography of Renaissance musicians*. Refereed.
- Music Encoding Conference, Florence, Italy. 19 May 2015. Andrew F. Fogarty, Andrew Hankinson, and Ichiro. Fujinaga. *A browser-based MEI editor*. Refereed.
- Music Encoding Conference, Florence, Italy. 19 May 2015. Andrew Horwitz, Andrew Hankinson, and Ichiro. Fujinaga. *A browser-based MEI editor*. Refereed.
- Journées d'Informatique Musicale, Montreal. 8 May 2015. Audrey Laplante, A. Hankinson, Julie E. Cumming, and Ichiro Fujinaga. *SIMSSA*: *Une interface unique pour la recherche et l'analyse de millions de partitions musicales numériques*. Refereed.

## **INVITED TALKS (cont.)**

- Music Encoding Initiative Workshop. Detmold, Germany. 24 May 2015. SIMSSA: Single Interface for Music Score Searching and Analysis: An overview.
- Japan Society for Sonic Arts, Tokyo, Japan. 2 November 2014. SIMSSA: Single Interface for Music Score Searching and Analysis.
- The Annual Meeting of the Renaissance Society of America, New York, NY. 27 March 2014. *Digital Prosopography of Renaissance Musicians: A Progress Report.* Refereed.
- HathiTrust Research Centre, Chicago, IL. 20 February 2014. Finding music scores in books, with D. Bainbridge.
- McGill Digital Humanities Work in Progress Talk, McGill University, Montreal. 9 February 2014. *Human History Project: Storing documented human history into a database.*
- École Polytechnique de Montréal, Montreal. 19 November 2013. *Digital Prosopography of Renaissance Musicians*.
- Escuela Universitaria de Música, Montevideo, Uruguay. 11 November 2013. *Interfaz Única para la Búsqueda y Análisis de Partituras (SIMSSA)*.
- McGill Medievalists "Works-in-Progress Series" McGill University, Montreal, QC. 23 October 2013. *Optical Music Recognition of Medieval Music*.
- International Association of Music Librarians Conference, Vienna. 2 August 2013. Andew Hankinson and Ichiro Fujinaga. *Using optical music recognition to navigate and retrieve music documents*.
- Colloquium at The Catapult Center for Digital Humanities and Computational Analysis of Texts, Indiana University, Bloomington, IN. 22 March 2013. *The Research Program at the Distributed Digital Music Archives and Libraries Laboratory*.
- Computer Science Department, Dalhousie University. Halifax, NS. 20 March 2013. Current Research at the Distributed Digital Music Archives and Libraries Laboratory.
- School of Information Studies, McGill University, Montreal. 22 February 2013. *Machine learning in Digital Humanities and the importance of ground-truth data*.
- American Musicological Society Meeting, New Orleans, LA. 1 November 2012. SIMSSA: Single Interface for Music Score Searching and Analysis.
- Peabody Conservatory of Music, The Johns Hopkins University, Baltimore, MA. 31 October 2012. *Current research at distributed digital music archives and libraries laboratory*.
- International Association of Music Librarians Conference, Montreal. 23 July 2012. SIMSSA: Single Interface for Music Score Searching and Analysis.
- International Musicological Society Congress, Rome, Italy. 7 July 2012. SIMSSA: Single Interface for Music Score Searching and Analysis.
- Cornell University, Ithaca, NY. 12 May 2012. Music: Cognition, Technology, Society: Keynote Speaker. *The research program at the distributed digital music archives and libraries laboratory.*
- Public Digital Humanities Roundtable, McGill University. 30 April 2012. Music Archivists Without Borders.
- IRAB Audio Digitization Workshop, Beirut, Lebanon. 19 April 2012. *Introduction to metadata and metadata for audio*.
- International Workshop on Advances in Music Information Research, Lyon, France. 17 April 2012. A. Hankinson, J. A. Burgoyne, G. Vigliensoni, and I. Fujinaga. *Creating large-scale searchable digital collections from printed music materials*.
- Renaissance Society of America Annual Meeting, Washington, DC. 24 March 2012. Digital prosopography of Renaissance musicians: Discovery of social and professional network, with S. Weiss.
- New York University, New York, NY. 3 March 2012. SIMSSA: Single Interface for Music Score Searching and Analysis.
- McGill University, School of Information Studies, 17 October 2011. Distributed digital music archives and libraries.
- NFAIS Humanities Roundtable, New York, NY. 3 October 2011. Two current research projects in music information retrieval at distributed digital music archives and libraries laboratory.
- Osaka Symposium on Digital Humanities. Osaka, Japan. 2011. J. S. Downie, D. De Roure and I. Fujinaga. Large-scale music audio analyses using high performance computing technologies: Creating new tools, posing new questions.
- INESC Porto, Porto Portugal. 18 July 2011. Distributed digital music archives and libraries.
- Universitat Pompeu Fabra, Barcelona, Spain. 4 July 2011. Current research at distributed digital music archives and libraries laboratory.
- Joint Conference on Digital Libraries, Ottawa, ON. 14 June 2011. The structural analysis of large amounts of music (SALAMI) project.
- Digging Into Data Challenge Conference, Washington, DC. 10 June 2011. The structural analysis of large amounts of music (SALAMI) project.
- Télécom Paris Tech, Paris. 29 November 2010. Distributed digital music archives and libraries.

## **INVITED TALKS (cont.)**

- Université de Montréal, Montreal, PQ. 30 September 2010. Distributed digital music archives and libraries. Queen's University, Belfast, UK. 23 September 2010. Distributed digital music archives and libraries laboratory.
- University of Oxford, Oxford, UK. 22 September 2010. Optical music recognition research at McGill. Singapore National University, Singapore. 2 August 2010. Distributed digital music archives and libraries
- ACM International Conference on Multimedia Information Retrieval. Philadelphia, PA. 31 March 2010. Improving automatic music classification performance by extracting features from different types of data, with C. McKay.
- North East Music Informatics Special Interest Group (NEMISIG) Workshop, New York University, New York, NY. 29 January 2010. Distributed digital music archives and libraries laboratory.
- e-Science for Musicology Workshop, Edinburgh, UK. 2 July 2009. Distributed digital music archives and libraries laboratory.
- Joint Conference on Digital Libraries Workshop, Austin, TX. 20 June 2009. Networked Environment for Music Analysis: An overview.
- HITS for Education Conference: Keynote Speaker, Charlottetown, PEI. 26 June 2009. Distributed digital music archives and libraries.
- Department of Engineering, University of Tsukuba, Tsukuba, Japan. 28 April 2009. Distributed digital music archives and libraries.
- Center for Advanced Sound Technologies, Yamaha Corporation, Hamamatsu, Japan. 15 April 2009. Distributed digital music archives and libraries.
- Toho Gakuen School of Music hosted by the Society of Music History and the Associazione Musica Antica Italiana in Giappone, Tokyo, Japan. 25 March 2009. Iconographic evidence of kettledrums in 14th-century Northern Italy with S. Weiss.
- Showa Academy Musicae, Tokyo, Japan. 24 February 2009. Distributed digital music archives and libraries. Tokyo University, Tokyo, Japan. 20 February 2009. Distributed digital music archives and libraries.
- SIGMUS (Special Interest Group on Music and Computer) Meeting of the Information Processing Society of Japan: Keynote Speaker, Tokyo, Japan. 17 February 2009. Distributed digital music archives and libraries.
- Graduate School of Library and Information Science, University of Tsukuba, Tsukuba, Japan. 13 January 2009. Distributed digital music archives and libraries.
- Tokyo University of the Arts, Tokyo, Japan. 2 December 2008. Distributed digital music archives and libraries. Japan Advanced Institute of Science and Technology, Kanazawa, Japan. 20 November 2008. Distributed digital music archives and libraries.
- Keio University, Tokyo, Japan. 6 November 2008. Distributed digital music archives and libraries.
- Tokyo University, Tokyo, Japan. 22 October 2008. Music and biomechanics.
- Osaka University, Osaka, Japan. 16 October 2008. Distributed digital music archives and libraries.
- Kwansei Gakuin University, Nishinomiya, Japan. 14 October 2008. Distributed digital music archives and libraries.
- 18th Conference of International Society for the Research and Promotion of Wind Music (IGEB), Echternach, Luxembourg. 11 July 2008. Evidence of kettledrums in late Medieval Italy with S. Weiss.
- City University of New York. 8 May 2008. New evidence for the origins of timpani in Western Europe with S. Weiss.
- Music Library Association. 77th Annual Meeting. Newport, RI. 22 February 2008. Metadata infrastructure for Sound recordings. (Poster with C. Lai, D. Descheneau, M. Frishkopf, J. Riley, J. Hafner, and B. MsMillan).
- North East Music Informatics Special Interest Group (NEMISIG) Workshop, Columbia University, New York, NY. 25 January 2008. Distributed digital music archives and libraries laboratory.
- Peabody Conservatory of Music, the Johns Hopkins University, Baltimore, MD. 28 November 2007. Iconographic evidence of kettledrums in 14th-century Northern Italy with S. Weiss.
- American Musicological Society meeting: American Music Instrument Society Study Session, Quebec City, QC. 3 November 2007. Iconographic evidence of kettledrums in 14th-century Northern Italy with S. Weiss.
- Pop & Policy Conference 2007. McGill University, Montreal, QC. 6 October 2007. The Archival Restoration Preservation Society. Panelist.
- 36<sup>th</sup> Annual Meeting of American Music Instrument Society, New Haven, CT. 28 June 2007. *Iconographic* evidence of kettledrums in 14th-century Northern Italy with S. Weiss.
- Canadian University Music Society/Canadian Association of Music Libraries, Archives, and Documentation Centres. 2007 Annual joint Conference. Faculty of Music, University of Montreal, Montreal, QC. 12 May 2007. Distributed digital music archives and libraries.
- Universitat Pompeu Fabra, Barcelona, Spain. 22 February 2007. Distributed digital music archives and libraries.

## **INVITED TALKS (cont.)**

- Digital Music Research Network Workshop 2006, Queen Mary, University of London, London, UK. 20 December 2006. *Distributed digital music archives and libraries*.
- Ecole d'ingenieurs et d'architectes de Fribourg, Switzerland. 26 June 2006. *Two approaches to optical music recognition* with Laurent Pugin.
- 150<sup>th</sup> Meeting of the Acoustic Society of America, Minneapolis, MN. 21 October 2005. *Distributed digital music archives and libraries. Journal of Acoustical Society of America* 118 (3): 2031.
- Summit on Digital Tools for the Humanities, University of Virginia, Charlottesville, VA. 28–30 September 2005. *Metasearch and on-demand metadata extraction*.
- The Art of Record Production Conference, University of Westminster, London, UK. 17–8 September 2005. *A guideline and a metadata schema for building a global database of music recordings*.
- SIGGRAPH Local Chapter meeting, Montreal, QC. 22 March 2005. Distributed digital music archives and libraries.
- DIAMM Workshop II, University of Oxford, Oxford, UK. 29–30 July 2004. *Creation of searchable database for noteshapes*.
- Online Chopin Variorum Edition Workshop, University of Pennsylvania, Philadelphia, PA. 26–27 May 2004. *Levy Sheet music project and optical music recognition: Introducing Gamut.*
- Renaissance Society of America Annual Meeting, New York, NY. 2 April 2004. From manuscript to printing press to computer chip: Studying early music in digital format, with S. Weiss.
- DIAMM Workshop, Oxford University, Oxford, UK. 27–28 November 2003. Levy Sheet music project and optical music recognition.
- Music Technology Area Colloquium. McGill University, Montréal, QC. 13 September 2002) *Gamera: Optical music recognition in a new shell*.
- Digital Resources for Humanities Conference, University of Gloucestershire, Cheltenham, UK. 31 August 2003. *Computer applications and resources in music scholarship: The present and the future*, with S. Weiss.
- International Musicology Society, 17<sup>th</sup> International Congress Leuven, Belgium. 5 August 2002. *Digitization of the Lester S. Levy collection of sheet music*.
- 143<sup>rd</sup> Meeting of the Acoustic Society of America, Pittsburgh, PA. 6 June 2002. *Comparison of machine and human recognition of isolated instrument tones. Journal of Acoustical Society of America* 111(5): 2417.
- University of California, Irvine, CA. 5 March 2002. Computer recognition of orchestral instruments.
- University of California, Santa Barbara, CA. 4 March 2002. Lazy learning and realtime timbre recognition.
- Stanford University. Pal Alto, CA.1 March 2002. The Levy Project: Introducing Gamera.
- Music Library Association. 71<sup>st</sup> Annual Meeting, Las Vegas, NV. 21 February 2002. *Toward distributed digital music library*.

#### CONFERENCES ATTENDED

Japanese Artificial Intelligence Conference, 6–8 June 2016, Kokura, Japan.

International World Wide Web Conference, 11–15 April 2016, Montreal, Canada

110<sup>th</sup> Information Processing Society of Music Information Science Society meeting, 29 February-1 March 2016, Osaka, Japan.

Information Processing Society for Accessibility Study Group meeting, 13 February, Tokyo, Japan.

The First Digital Humanities Symposium. 26 January 2016, Tokyo, Japan.

The Digital Scholarship Workshop in DC sponsored by Trans-Atlantic Platform for the Social Sciences and Humanities. 28–9 January 2015, Washington, DC.

Lorenz Center Workshop on Music Similarity: Concepts, Cognition and Computation. 19–23 January 2015, Leiden, the Netherlands.

American Musicological Society / Society for Music Theory Meeting. 6-9 November 2014, Milwaukee, WI.

International Society for Music Information Retrieval Conference, 27–31 October 2014, Taipei, Taiwan.

IAML (International Association of Music Libraries) Conference. 28 July – 3 August 2013, Vienna, Austria.

Society of Music Perception and Cognition, 8–11 August 2013, Toronto, ON.

Medieval and Renaissance Music Conference. 4-7 July 2013, Certaldo, Italy.

American Musicological Society Meeting. 10–13 November 2011, San Francisco, CA.

International Symposium on Performance Science. 23–28 August 2011, Toronto, ON.

IAML International Conference. 24–29 July 2011, Dublin, Ireland.

AES 42<sup>nd</sup> Conference on Semantic Audio. 22–24 July 2011, Ilmenau, Germany.

International Workshop on Advances in Music Information Research. 15 July 2011, Barcelona, Spain.

IEEE International Conference on Multimedia and Expo. 11-15 July 2011, Barcelona, Spain.

Medieval and Renaissance Music Conference. 5–8 July 2011, Barcelona, Spain.

LIBER 2011: Association of European Research Libraries Conference. 29 June-2 July 2011, Barcelona, Spain.

Digging Into Data Challenge Conference. 9–10 June 2011, Washington, DC.

Renaissance Society of America Annual Meeting. 24-26 March 2011, Montreal, QC.

Dagsthul Seminar on Multimodal Music Processing, 23–28 January 2011, Dagsthul, Germany.

American Musicological Society / Society of Music Theory Meeting. 23–27 November 2010, Indianapolis, IN.

3<sup>rd</sup> Annual Lawrence J. Schoenberg Symposium on Manuscript Studies in the Digital Age. 19–20 November 2010, Philadelphia, PA.

IAML, 5-11 July 2009, Amsterdam, Netherlands.

AIRS Start-up Conference, 27–30 June 2009, Charlottetown, PEI.

Joint Conference on Digital Libraries, 15–20 June 2009, Austin, TX.

71<sup>st</sup> National Convention of Information Processing Society of Japan, 10–12 March 2009, Kusatsu-shi, Japan Asian-Pacific Conference on Library and Information Education Practice (A-LIEP 2009), 6–8 March 2009, Tsukuba, Japan

Workshop on Interactive Systems and Software, 26–8 November 2008, Kobe, Japan.

Musical Acoustics Society of Japan Workshop 15–16 November 2008, Kanazawa, Japan.

Entertainment Computing 2008, 29–31 October 2008, Kanazawa, Japan.

Musical Acoustics Society of Japan Workshop 18 October 2008, Tokyo, Japan.

Joint Conference on Digital Libraries, 16-20 June 2008, Pittsburgh, PA.

Canadian Association of Music Libraries Conference, 7–8 June 2008, Vancouver, BC.

Canadian Association for Information Science Conference, 5–7 June 2008, Vancouver, BC.

Association for Recorded Sound Collections Conference, 26–30 March 2008, Pal Alto, CA.

Mellon Foundation: Research in Information Technologies / Scholarly Communications Program Retreat, 28–9 February 2008, Princeton, NJ.

Music Library Association 77<sup>th</sup> Annual Meeting, 17–24 February 2008, Newport, RI.

Mellon Foundation All-Projects Meeting. 5-7 June 2007, New York, NY.

American Musicological Society / Society of Music Theory Meeting. 1–5 November 2006, Los Angeles, CA.

New Interfaces for Music Expression. 5–8 June 2006, Paris, France.

European Conference on Information Retrieval. 10–2 April 2006, London, England.

American Musicological Society Meeting. 26-9 October 2005, Washington, DC.

International Association of Music Libraries and IASA Congress. 8–13 August 2004, Oslo, Norway.

International Conference on Music Perception and Cognition. 3–7 August 2004, Evanston IL.

Sound Savings: Preserving Audio Collections Symposium. 24–6 July 2003, Austin, TX.

EU/NSF Digital Libraries All Projects meeting 25-6 March 2002, Rome, Italy.

Conference on the Biological Foundation of Music, May 2000, New York.

# **CONFERENCES and WORKSHOPS HOSTED**

2009/10/26-30:	International Society for Music Information Retrieval (Kobe, Japan)
2010/10/22:	CIRMMT Workshop on Music Information Retrieval and Cultural Data
2011/11/12:	SIMSSA Workshop I at AMS (San Francisco)
2012/07/28:	SIMSSA Workshop II at IAML (Montreal)
2013/06/21:	CIRMMT Workshop on Human History Project #1 (Montreal)
2013/09/07:	SIMSSA Workshop III at CIRMMT (Montreal)
2014/09/29:	SIMSSA Workshop IV at CIRMMT (Montreal)
2014/11/06:	SIMSSA Workshop V at AMS/SMT (Milwaukee)
2015/06/27:	SIMSSA Workshop VI at IAML/IMS (New York City)
2015/07/09:	SIMSSA Workshop VII at MedRen Conference (Brussels)
2015/09/25:	CIRMMT Workshop on Usability and User Experience for Music Information Systems
2015/12/12:	Second International Workshop on the Human History Project (Montreal)
2016/05/17–20:	Music Encoding Conference (Montreal)
2016/05/21:	SIMSSA Workshop VIII at CIRMMT (Montreal)
2016/07/09:	SIMSSA Workshop IX at IAML (Rome)
2016/09/24:	SIMSSA Workshop X at CIRMMT (Montreal)
2016/11/06:	SIMSSA Workshop XI at AMS/SMT (Vancouver)
2017/08/07:	SIMSSA Workshop XII at CIRMMT (Montreal)

.

## Natural language fluency:

English: reading, speaking, writing French: reading, speaking, writing\* Japanese: reading, speaking, writing\* German: reading\*, speaking\* (\* means limited)

## Computer language fluency:

Programming Languages: Algol, APL, Basic, C, C++, Fortran, Java, JavaScript, Objective-C, Pascal,

PostScript, PL/1, Python, XPL, and Assembler (IBM360/370, M56000, TI320x0,

and 8088/80x86)

Operating Systems: CP/M, MacOS, MTS, MVS/OS, MUSIC, MS–DOS, OSX, UNIX/Linux,

Windows

Musical career:		
	Momber of Anachi Daike (traditional Japanese drum group)	
	- Member of <i>Arashi Daiko</i> (traditional Japanese drum group)	
1985	Baroque timpanist, Dietrich Buxtehude:	
	Cantatas for Lent and Easter (McGill Records 84021).	
1979–81	Percussionist, Edmonton Symphony Orchestra	
1979–80	Composer/Percussionist, University of Alberta Drama Dept.	
1979	Percussionist, Ice Capades; Citadel Theatre	
1978-80	Percussionist/Accompanist, Brian Webb Dance Company	
	Teacher of percussion and drums, <i>The Drum Shop</i>	
	Drummer, University of Alberta Stage Band	
1978	Founded Kashim Percussion Quartet, Edmonton's first professional percussion ensemble	
1977-81	Timpanist/Percussionist, St. Cecilia Orchestra	
1975-80	Percussionist/Timpanist, University of Alberta Wind Ensemble	
1974	Percussionist, University of Alberta Concert Band	
1973	Founded Synthesis, an electronic music ensemble	
1972–81	Drummer, various dance bands	

## **Courses taught:**

McGill University: Music and Audio Computing II (2014)

Music and the Internet (2011–3)

Seminar: Music Information Acquisition, Preservation, and Retrieval (2004–7, 2009,

2011-5, 2017)

Seminar: Musical Data Mining (2003) Music and Audio Computing I (2002) Advanced Multimedia Development (2002–7)

Independent Music, Media & Technology Projects: Music Technology (2002–4); (2006: Beinan Li); (2012: Greg Burlet, Gabriel Vigiliensoni); (2014: Jason Leung)

(2016: Austin Dunn)

Johns Hopkins

University: Digital Music Programming (1994–2002)

Synthesis Theory (1994–2002) Research Practicum (1994–2002)

Introduction to Programming (1998–2000) Seminar: Music Data Mining (2001) Seminar: Linux and Music (2000)

Seminar: Designing Web-based Music Applications (1998)

Seminar: SuperCollider (1997)

Seminar: Publishing on the Internet (1996)

## **Student Advisees:**

## McGill University:

John Ashley Burgoyne (Ph.D. 2005–12) Stochastic processes and database-driven musicology.

Gregory Burlett (M.A. 2011–3) Automatic guitar tablature transcription online.

Spencer Campbell (M.A. 2009–11) Automatic key detection of musical excerpts from audio.

Johanna Devaney (Ph.D. 2007–12) An empirical study of the influence of musical context on intonation practices in solo singers and SATB ensembles.

Neda Eshraghi (Ph.D. 2016–)

Greg Eustace (M.A. 2006–8) Subjective evaluation of an autoregressive model-based method for the restoration of audio recordings contaminated with impulsive noise.

Robert Ferguson (M.A. 2002–4) Automatic segmentation in concert recordings.

Rebecca Fiebrink (M.A. 2004–6) An exploration of feature selection as a tool for optimizing musical genre classification.

Robert Giglio (M.A. 2014–6: co-supervisor)

Ryan Groves (M.A. 2012-6) Automatic melodic analysis

Andrew Hankinson (Ph.D. 2007–14) Optical music recognition infrastructure for large-scale music document analysis.

Jason Hockman (Ph.D. 2007–13) An ethnographic and technological study of breakbeats in Hardcore, Jungle, and Drum & Bass.

Andrew Horwitz (M.A. 2013–)

Yaolong Ju (Ph.D. 2016–)

Stephanie Khoury (Ph.D. 2014–: co-supervisor)

Trevor Knight (M. Eng. 2010–2; co-supervisor) Analysis of trumpet tone quality using machine learning and audio feature selection.

Catherine Lai (Ph.D. 2003–7) *Metadata for phonograph records: Facilitating new forms of use and access.* Beinan Li (Ph.D. 2004–11) *Optical audio reproduction for stereo phonograph records by using white-light interferometry and image processing.* 

Daniel McEnnis (M.A. 2004–6) On-demand Metadata Extraction Network.

Cory McKay (M.A. 2002–4) Automatic genre classification of MIDI recordings.

Cory McKay (Ph.D. 2004–10) Automatic music classification with jMIR.

Alastair Porter (M.A. 2010–3) Evaluating music fingerprinting systems.

Hannah Robertson (M.A. 2011–3) Testing a new tool for alignment of musical recordings

Ying Qin (M.A. 2011–3) A historical survey of music recommendation systems: Towards evaluation.

Jordan Smith (M.A. 2008–11) A survey of approaches to the automatic formal analysis of musical audio. Martha Thomae (M.A. 2015–)

Adam Tindale (M.A. 2002–4) Classification of snare drum sounds using neural networks.

Gabriel Vigliensoni (Ph.D. 2011–7) Evaluating the performance improvement of a music recommendation model by using user-centric features

Ling-Xiao Yang (M.A. 2014–6) Singing transcription using machine learning with feature selection

**Post-docs:** Laurent Pugin (2006–8); Mathieu Bergeron (2010–2); Andrew Hankinson (2015–6); Reiner Krämer (2015–); Clair Arthur (2016–) Jorge Calvo-Zaragoza (2017–)

Johns Hopkins University: Jeff Beman (D.M.A. 1995), Matthew Burtner (M.M. 1997), Michael Droettboom (M.M. 2002), Mark Emon (M.M.), Takayuki Hoshishiba (JAIST: Ph.D. 2000, M.Sc. 1996, co-supervisor), Charles Kim (M.M. 1998), Sumi Kim (M.M.), Ken Kinnard (M.M. 1995), Marian Lee (D.M.A. 2002), Wan Ching Lee (M.M. 1999), Wendy Linkin (M.M. 1997), Karl MacMillan (M.M. 2002), Chris Mandra (D.M.A.), Meg Schedel (M.M. 2001), Seong Ah Shin (M.M.), Scott Smallwood (M.M.), Asha Srinivasan (M. M.), David Sullivan (M.M. 2001), Rie Suzuki (D.M.A. 1999), Forrest Tobey (D.M.A. 1997), Michael Urich (M.M. 1996), Gastone Vinci (M.M.), David Wetzel (M.M. 1998), Tony Willert (M.M.), John Young (M.M. 2003), Takako Yoshida (JAIST: Ph.D., M.Sc. 1997, co-supervisor), Lilit Yoo (M.M. 2000)

**Thesis committees:** Sean Olive (Ph.D. Sound Recording 2004), Jung-Kyong Kim (M.Sc. Psychology 2003), Sebastian Streich and Bee Suan Ong (Ph.D. Universitat Pompeu Fabra, Spain 2007), Finn Upham (M.A., Music Technology, McGill 2011), Chris Wood (M.A. Music Technology, McGill 2015), Jason Leung ((M.A. Music Technology, McGill 2015), Elliot Creager (M.A. Music Technology, McGill 2015), Nicholas Esterer (M.A. Music Technology 2016)

**PhD Comprehensive Examination committees (McGill):** Song Hui Chon (Music Technology 2010), Vanessa Yaremchuk (Music Technology 2010), Corey Kereliuk (Music Technology 2010), Brett Leonard (Sound Recording 2011), Dave Benson (Sound Recording 2011), Sven-Amin Lembke (Music Technology 2011), Kai Siedenburg (Music Technology 2014), Eddy Kazazis (Music Technology 2016)

**PhD Defense committees (McGill):** Brad Vines (Psychology 2005), Charles Antoine Juilen (Information Studies 2010), Farah Kawtharani (Islamic Studies 2012 as Pro-Dean), Ladan Mahabadi (Computer Science 2013), Ahmad Sadek (Mechanical Engineering 2014 as Pro-Dean), Mark Bazett (Human Genetics 2015 as Pro-Dean), David Weigl (Information Studies, McGill 2016), Jorge Calvo-Zaragoza (Computer Science, University of Alicante 2016)