Fabian C. Moss | Curriculum Vitae

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Employment

Julius-Maximilians-Universität Würzburg (JMU) — **Assistant Professor**
Digital Music Philology and Music Theory, Würzburg, Germany — *2022/12–present*

University of Amsterdam (UvA) — **Research Fellow**
Cultural Analytics, Data Science Center, Amsterdam, The Netherlands — *2022/01–2022/11*

École Polytechnique Fédérale de Lausanne (EPFL) — **Postdoctoral Researcher**
Digital and Cognitive Musicology Lab (DCML), Lausanne, Switzerland — *2020/02–2021/12*

École Polytechnique Fédérale de Lausanne (EPFL) — **Doctoral Assistant**
Digital and Cognitive Musicology Lab (DCML), Lausanne, Switzerland — *2017-09–2020/01*

Technische Universität Dresden (TUD) — **Doctoral Assistant**
Dresden Music Cognition Lab (DMCL), Dresden, Germany — *2015/01–2017/08*

Musikschule Leverkusen — **Conductor and vocal coach**
Project "Jedem Kind seine Stimme" (JEKISS), Leverkusen, Germany — *2012/11–2014/12*

Education

École Polytechnique Fédérale de Lausanne (EPFL) — **PhD student**
Digital and Cognitive Musicology Lab (DCML), Lausanne, Switzerland — *2017/09–2019/12*

Massachusetts Institute of Technology (MIT) — **Visiting Student**
Department of Linguistics and Philosophy, Cambridge, MA, USA — *2016/01–2016/03*

Technische Universität Dresden (TUD) — **PhD student**
Dresden Music Cognition Lab (DMCL), Dresden, Germany — *2015/01–2017/08*

Escola Superior de Musica de Catalunya (ESMUC) — **ERASMUS Exchange Student**
Barcelona, Spain — *2012/01–2012/04*

Hochschule für Musik und Tanz Köln (HfMT) — **Master of Arts**
Musicology, Cologne, Germany — *2011/04–2013/09*

Hochschule für Musik und Tanz Köln (HfMT) — **Staatexamen [State Examination]**
Music Education (Piano Major), Cologne, Germany — *2008/04–2013/09*

Universität zu Köln (UzK) — **Staatexamen [State Examination]**
Mathematics and Educational Sciences, Cologne, Germany — *2006/10–2016/09*

Friedrich-Wilhelm-Gymnasium Köln (FWG) — **Abitur [German High School Diploma]**
Cologne, Germany — *2002/09–2005/06*

Service

Memberships

12/2022–present Deutsche Gesellschaft Juniorprofessur (DGJ); **10/2022–present** European COST Action *EarlyMuse* (2022–2026), Working Groups 2 (Sources) & 3 (Publications) https://www.cost.eu/actions/CA21161/ **11/2021–present** Deutscher Hochschulverband (DHV); **11/2021–present** European Society for the Cognitive Sciences of Music (ESCOM); **09/2021–present** International Society for Music Information Retrieval (ISMIR); **05/2020–12/2021** EPFL Data Champions Community; **10/2019–present** Gesellschaft für Musikforschung (GfM); **10/2018–present** Gesellschaft für Musiktheorie (GMTH); **02/2018–12/2022** UNIL-EPFL Centre for Digital Humanities (dhCenter); **03/2015–08/2017** Dresden Technical University Graduate Academy

Responsibilities

2022: Scientific Committee Member for Workshop on Computational Methods in the Humanities 2022 (COMHUM 2022); **2021:** Programm Committee Member for 2nd Conference on Computational Humanities Research (CHR2021); **since 2020:** Co-Chair of the Music Analysis Interest Group of the *Music Encoding Initiative* (MEI); **2018–2019:** Co-founder and vice-president of the Digital Humanities Student Association *dhelta* at EPFL; **2012/10–2013/09:** Financial officer for General Students' Commitee, HfMT

Reviewer activity

Journals: *Digital Scholarship in the Humanities*, *Empirical Musicology Review*, *Music and Science*, *Music Theory and Analysis*, *Transactions of the International Society of Music Information Retrieval*, *Zeitschrift der Gesellschaft für Musiktheorie*

Conferences: *Computational Humanities Research (CHR)*, *Conference of the European Society for the Cognitive Sciences of Music (ESCOM)*, *International Conference on Multimedia Retrieval (ICMR)*, *International Conference on Music Perception and Cognition (ICMPC)*, *International Conference of Students of Systematic Musicology (SysMus)*,

Organization

2022: CREATE Salon on "Computational Creativity", 23 November 2022, *Creative Amsterdam: An E-Humanities Perspective*, Media Studies Department, University of Amsterdam, The Netherlands. https://www.create.humanities.uva.nl/events/computational-creativity/

Workshop "Representing Harmony: Goals and Challenges", with Johannes Hentschel, Markus Neuwirth & Martin Rohrmeier. 13–16 September 2022, Digital and Cognitive Musicology Lab, École Polytechnique Fédérale de Lausanne, Switzerland. https://www.epfl.ch/labs/dcml/workshops/representing-harmony/

2021: Workshop "Musik – Schrift – Digitalität" [Music – Writing – Digitality], with Dennis Ried and Daniel Fütterer. 13–14 December 2021, Hochschule für Musik, Karlsruhe, Germany.

2019: Workshop "Schenkerian and Tonfeld Theory for Music Analysis". 12–15 December 2019, Digital and Cognitive Musicology Lab, École Polytechnique Fédérale de Lausanne, Switzerland.
https://memento.epfl.ch/event/masterclass-schenkerian-and-tonfeld-theory-for-mus/

First Swiss Digital Humanities Exchange, with Jessica Pidoux, Gerhad Lauer, and Stefan Münnich. 8–9 February 2019, DH Lab, University of Basel, Switzerland. https://sites.google.com/view/dhexchange/

2015: Co-organization of lecture series "Systematic Musicology: Perception and Cognition of Music", lead: Martin Rohrmeier. Dresden Music Cognition Lab, Technichal University Dresden, Germany.

2013: Co-organization of the international conference "Musical Metre in Comparative Perspective", lead: Hans Neuhoff and Rainer Polak. 4–6 April 2013, Hochschule für Musik und Tanz Köln, Germany.

Funding

Grants

Julius-Maximilians-Universität Würzburg **EUR 8,310**
Start-up funding to prepare grant application [Anschubförderung zur Antragsstellung] *2022/12–2023/11*
Fabian C. Moss

Durham University Seedcorn Grant **GBP 7,475**
Funding for proof-of-concept study to support larger grant application *2022/06–2023/05*
Tuomas Eerola, Fabian C. Moss

University of Amsterdam Data Science Centre Accelerate Program (Matching Funding) **EUR 192,000**
Data Scientists/Engineers Cultural Data Access & Visualization, Spatial Humanities, Cultural Data Analysis *2022/04–2024/12*
Tobias Blanke, Fabian C. Moss, Julia Noordegraaf, & Thomas Poell

dhCenter UNIL-EPFL project fund **CHF 2'880**
Enabling interactive music visualization for a wider community *2021/07–2021/09*
Fabian C. Moss & Daniel Harasim

Collaborative Research on Science and Society (CROSS) **CHF 59'565**
Digitizing the Dualism Debate: A Case Study in the Computational Analysis of Historical Music Theory Sources *2021/01–2021/12*
Fabian C. Moss & François Bavaud

Awards and scholarships

2016–2017: Konrad Adenauer Foundation, PhD Scholarship; **2016/08:** TUD Graduate Academy, Travel Award; **2016/01–03** Deutscher Akademischer Austauschdienst (DAAD), great!$_{\text{ipid4all}}$ (group2group exchange for academic talents); **2014/09:** Society for Education and Music Psychology (SEMPRE), Travel Award; **2012/01–04:** European Union (EU), ERASMUS Scholarship; **2008–2013:** Konrad Adenauer Foundation, Student Scholarship

Publications

Theses

Moss, **F. C.** (2019). *Transitions of tonality: A model-based corpus study* [Doctoral dissertation, École Polytechnique Fédérale de Lausanne]. Lausanne, Switzerland. https://doi.org/10.5075/epfl-thesis-9808

Moss, **F. C.** (2012). *"Theorie der Tonfelder" nach Simon und "Neo-Riemannian Theory": Systematik, historische Bezüge und analytische Praxis im Vergleich* [Master's thesis, Hochschule für Musik und Tanz Köln]. https://doi.org/10.5281/zenodo.4748512

Journal articles

Moss, **F. C.**, Neuwirth, M., & Rohrmeier, M. (2022). The line of fifths and the co-evolution of tonal pitch-classes. *Journal of Mathemat-*

ics and Music, *0*(0), 1–25. https://doi.org/10.1080/17459737.2022.2044927

Viaccoz, C., Harasim, D., **Moss**, **F. C.**, & Rohrmeier, M. (2022). Wavescapes: A visual hierarchical analysis of tonality using the discrete Fourier transform. *Musicae Scientiae*, 10298649211034906. https://doi.org/10.1177/10298649211034906

Harasim, D., **Moss**, **F. C.**, Ramirez, M., & Rohrmeier, M. (2021). Exploring the foundations of tonality: Statistical cognitive modeling of modes in the history of Western classical music. *Humanities and Social Sciences Communications*, *8*(1), 1–11. https://doi.org/10.1057/s41599-020-00678-6

Moss, **F.**, C., & Neuwirth, M. (Eds.). (2021). Special Issue on Open Science in Musicology. *Empirical Musicology Review*, *16*(1), 1–4. https://doi.org/10.18061/emr.v16i1.8246

Moss, **F. C.**, & Neuwirth, M. (2021). FAIR, Open, Linked: Introducing the Special Issue on Open Science in Musicology. *Empirical Musicology Review*, *16*(1), 1–4. https://doi.org/10.18061/emr.v16i1.8246

Moss, **F. C.**, & Rohrmeier, M. (2021). Discovering Tonal Profiles with Latent Dirichlet Allocation. *Music & Science*, *4*. https://doi.org/10.1177/20592043211048827

Lieck, R., **Moss**, **F. C.**, & Rohrmeier, M. (2020). The Tonal Diffusion Model. *Transactions of the International Society for Music Information Retrieval*, *3*(1), 153–164. https://doi.org/10.5334/tismir.46

Moss, **F. C.**, Souza, W. F., & Rohrmeier, M. (2020). Harmony and form in Brazilian Choro: A corpus-driven approach to musical style analysis. *Journal of New Music Research*, *49*(5), 416–437. https://doi.org/10.1080/09298215.2020.1797109

Moss, **F. C.**, Neuwirth, M., Harasim, D., & Rohrmeier, M. (2019). Statistical characteristics of tonal harmony: A corpus study of Beethoven's string quartets. *PLoS ONE*, *14*(6), e0217242. https://doi.org/10.1371/journal.pone.0217242

Popescu, T., Neuser, M. P., Neuwirth, M., Bravo, F., Mende, W., Boneh, O., **Moss**, **F. C.**, & Rohrmeier, M. (2019). The pleasantness of sensory dissonance is mediated by musical style and expertise. *Scientific Reports*, *9*(1), 1070. https://doi.org/10.1038/s41598-018-35873-8

Neuwirth, M., Harasim, D., **Moss**, **F. C.**, & Rohrmeier, M. (2018). The Annotated Beethoven Corpus (ABC): A Dataset of Harmonic Analyses of All Beethoven String Quartets. *Frontiers in Digital Humanities*, *5*(July), 1–5. https://doi.org/10.3389/fdigh.2018.00016

Moss, **F. C.** (2017). [Review of David Huron. Voice Leading: The Science behind a Musical Art]. *Music Theory & Analysis*, *4*(1), 119–130. https://doi.org/10.11116/MTA.4.1.71

Conference papers & book chapters

Moss, **F. C.** (in press). Transatlantic transformations: How Riemannian is Neo-Riemannian theory? In S. Keym & C. Hust (Eds.), *Hugo Riemann: Musikforschung zwischen Universalität, Nationalismus und internationaler Ausstrahlung*.

Bracks, C., & **Moss**, **F. C.** (2022). Totoli's Art of Lelegesan: Analyzing Sociocultural Context and Musical Content. In I. Ali-MacLachlan & A. Holzapfel (Eds.), *FMA2022: International Workshop on Folk Music Analysis* (pp. 1–5). https://doi.org/10.31219/osf.io/5tsxa

Harasim, D., Affatato, G., & **Moss**, **F. C.** (2022). midiVERTO: A Web Application to Visualize Tonality in Real Time. In M. Montiel, O. A. Agustín-Aquino, F. Gómez, J. Kastine, E. Lluis-Puebla, & B. Milam (Eds.), *Mathematics and Computation in Music* (pp. 363–368). Springer International Publishing. https://doi.org/10.1007/978-3-031-07015-0_31

Hentschel, J., **Moss**, **F. C.**, McLeod, A., Neuwirth, M., & Rohrmeier, M. (2022). Towards a unified model of chords in Western harmony. In S. Münnich & D. Rizo (Eds.), *Music Encoding Conference Proceedings 2021* (pp. 143–149). Humanities Commons. https://doi.org/10.17613/4crx-fr36

Moss, **F. C.**, Affatato, G., & Harasim, D. (2022). Phantom Curves: Scientific Discovery through Interactive Music Visualization. In L. Pugin (Ed.), *9th International Conference on Digital Libraries for Musicology* (pp. 60–64). Association for Computing Machinery. https://doi.org/10.1145/3543882.3543886

Moss, **F. C.**, Nápoles López, N., Köster, M., & Rizo, D. (2022b). Challenging sources: A new dataset for OMR of diverse 19th-century music theory examples. In J. Calvo-Zaragoza, A. Pacha, & E. Shatri (Eds.), *Proceedings of the 4th International Workshop on Reading Music Systems (WoRMS 2022)* (pp. 4–8). https://sites.google.com/view/worms2022/proceedings

Anzuoni, E., Ayhan, S., Dutto, F., McLeod, A., **Moss**, **F. C.**, & Rohrmeier, M. (2021). A Historical Analysis of Harmonic Progressions Using Chord Embeddings. In D. A. Mauro, S. Spagnol, & A. Valle (Eds.), *Proceedings of the 18th Sound and Music Computing Conference* (pp. 284–291). https://doi.org/10.5281/zenodo.5038910

Hentschel, J., **Moss**, **F. C.**, Neuwirth, M., & Rohrmeier, M. (2021). A semi-automated workflow paradigm for the distributed creation and curation of expert annotations. In J. H. Lee, A. Lerch, Z. Duan, J. Nam, P. Rao, P. van Kranenburg, & A. Srinivasamurthy (Eds.), *Proceedings of the 22nd International Society for Music Information Retrieval Conference, ISMIR 2021, Online, November 7-12, 2021* (pp. 262–269). https://archives.ismir.net/ismir2021/paper/000032.pdf

Moss, **F. C.**, Köster, M., Femminis, M., Métrailler, C., & Bavaud, F. (2021). Digitizing a 19th-Century Music Theory Debate for Computational Analysis. In M. Ehrmann, F. Karsdorp, M. Wevers, T. L. Andrews, M. Burghardt, M. Kestemont, E. Manjavacas, M. Piotrowski, & J. van Zundert (Eds.), *CHR 2021: Computational Humanities Research Conference, November 17–19, 2021, Amsterdam, The Netherlands* (pp. 159–170).

Rohrmeier, M., & **Moss**, **F. C.** (2021). A Formal Model of Extended Tonal Harmony. In J. H. Lee, A. Lerch, Z. Duan, J. Nam, P. Rao, P. van Kranenburg, & A. Srinivasamurthy (Eds.), *Proceedings of the 22nd International Society for Music Information Retrieval Conference, ISMIR 2021, Online, November 7-12, 2021* (pp. 569–578).

Landnes, K., Mehrabyan, L., Wiklund, V., Lieck, R., **Moss**, **F. C.**, & Rohrmeier, M. (2019). A Model Comparison for Chord Prediction on the Annotated Beethoven Corpus. In I. Barbancho, L. J. Tardón, A. Peinado, & A. M. Barbancho (Eds.), *Proceedings of the 16th Sound & Music Computing Conference (SMC 2019)* (pp. 250–254). https://doi.org/10.5281/zenodo.3249335

Moss, **F. C.** (2014). Tonality and functional equivalence: A multilevel model for the cognition of triadic progressions in 19th century music. In K. Jakubowski, N. Farrugia, & D. Müllensiefen (Eds.), *International Conference of Students of Systematic Musicology – Proceedings* (pp. 1–8).

Preprints, data sets, & blog posts

Moss, **F. C.**, Nápoles López, N., Köster, M., & Rizo, D. (2022a). 19MT-OMR: A dataset for multimodal Optical Music Recognition. https://doi.org/10.17605/osf.io/QM9Z5

Herff, S. A., **Moss**, **F. C.**, & Rohrmeier, M. (2021). Evidence for cognitive tonal hierarchies in cadential but not scalar contexts. Retrieved March 27, 2022, from https://osf.io/yz957/

Moss, **F. C.** (2020a). Choro Songbook Corpus. https://doi.org/10.5281/zenodo.3881347

Moss, **F. C.** (2020b). A computational model for note distributions in musical pieces. https://www.epfl.ch/labs/dcml/computational-model-note-dists/

Moss, **F. C.** (2020c). Tracing historical changes in the exploration of tonal space. https://www.epfl.ch/labs/dcml/tracing-historical-changes/

Moss, **F. C.**, Neuwirth, M., & Rohrmeier, M. (2020). Tonal Pitch-Class Counts Corpus (TP3C). https://doi.org/10.5281/zenodo.3600088

Moss, **F. C.**, Loayza, T., & Rohrmeier, M. (2019). Pitchplots. https://doi.org/10.5281/ZENODO.3265393

Outreach

Invited talks and workshops

2023: **Moss, F. C.** Respondent to Sanja Kiš Žuvela: *Musical Terminology, Digital Corpus Management and Translation*. GMTH International Music Theory Lectures. 9 February, 2023.

Workshop "Decoding Musical Structure: Theory, Computation, and Neuroscience". Congressi Stefano Franscini, Monte Verità, 5–9 February, 2023.

2022: **Moss, F. C.** *Music Stylometry – the Case of Choro*. Music Cognition Lab Meeting, Princeton University [online], 2 November, 2022.

Moss, F. C. *Learning about Machine Learning with CRIM*. Digital Counterpoints: Exploring Similarity in Renaissance Music, October 20–22, 2022, Haverford College, Department of Music, Haverford, PA.

Moss, F. C. *midiVERTO: A web-based tool to make computational music analysis more accessible*. Institute für Musik und Musikwissenschaft, Technische Universität Dortmund, Germany, 28 April.

Moss, F. C. *Interactive Music Analysis using the DFT and Pitch-Class Distributions extracted from MIDI files*. Faculdade de Engenharia da Universidade do Porto (FEUP), Porto, Portugal, 4 April 2022.

Moss, F. C. *Music Theory and the Discrete Fourier Transform*. Cognitive and Systematic Musicology Lab Meeting, The Ohio State University, Columbus, USA [online], 25 March 2022.

2021: **Moss, F. C.** *The Science of Music*. EPFL Information Days, 24–25 November 2021, Lausanne, Switzerland. https://youtu.be/y5TQNo9zDVI

Rohrmeier, M. & **Moss, F. C.** *Music, Mathematics, and the Geometry of Jazz*. Montreux Jazz Festival, July 11, 2021, Montreux, Switzerland.

Moss, F. C. *Boosting Open Research in Empirical Musicology*. EPFL Data Champions Meeting (DCBreak#3). March 18, 2021, Lausanne, Switzerland [online].

2020: **Moss, F. C.** *The Importance of Modeling in Computational Musicology*. Round-table on "Probability and Music", 5th International Congress of Music and Mathematics (MusMat 2020) – Perspectives and Applications of Mathematics in Post-Tonal Theories («Homage to Jamary Oliveira»), December 8–12, Rio de Janeiro, Brazil [online].

Moss, F. C. *Computational Musicology and the Digital Humanities: Problems, Practices, and Prospects*. CRETA-Werkstatt #9, Center for Reflected Text Analytics, University of Stuttgart, February 18, 2020, Stuttgart, Germany.

2019: **Moss, F. C.** *Tracing the History of Tonality with Note Distributions*. "Corpus Research as a Means of Unlocking Musical Grammar" International Research Workshop, July 1–4, 2019, Tel-Aviv, Israel.

2018: **Moss, F. C.** *Corpus Research in Digital Musicology*. Seminar "Willkommen in der Matrix: Digitale Anwendungen für die Musikanalyse in Theorie und Praxis", University of Basel, Basel, Switzerland.

2017: **Moss, F. C.** *Formal Grammars and Ambiguity in Extended Tonality*. Workshop and Symposium on Schenkerian Analysis "Wege der Kreativität – Zwischen Erfindung und Rekonstruktion", Universität der Künste, Berlin, Germany.

Moss, F. C. *From Beethoven to Brazil: Digital Musicology at EPFL*. Digital Synergies: Ca' Foscari meets École Polytechnique Fédérale de Lausanne. Global Challenges Seminar - Team "Creative arts, cultural heritage and digital humanities", Venice, Italy.

Moss, F. C. *Musik und Sprache*. Talk for Student Association "Denkzettel", TUD, Dresden, Germany.

2016: **Moss, F. C.** *Extended Tonality: Theoretical Challenges and their Relation to the Neuroscientific Study of Musical Syntax*. Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany.

Moss, F. C., Rohrmeier, M. *Towards a syntactic account for harmonic sequences in extended tonality*. Syntax Square Meeting, Massachusetts Institute of Technology, Department of Linguistics and Philosophy, Cambridge, USA.

Moss, F. C. & Harasim, D. *Extended Tonality and Music Cognition*. Symposium "Towards a World Music Theory", University of Hamburg, Institute for Systematic Musicology, Hamburg, Germany.

Conference presentations

2022: **Moss, F. C.**, Nápoles López, N., Köster, M. & Rizo, D. *Challenging sources: a new dataset for OMR of diverse 19th-century music theory examples*. 4th International Workshop on Reading Music Systems (WoRMS 2022), 18 November 2022 [online].

Köster, M. & **Moss, F. C.** *Der harmonische Dualismus und seine Entwicklung zum 'Streit- und Angelpunkt der Musiktheorie' – eine Diskursanalyse*. Jahrestagung der Gesellschaft für Musikforschung. Nach der Norm: Musikwissenschaft im 21. Jahrhundert, 29 September – 1 October 2022, Humboldt-Universität Berlin, Berlin, Germany.

Moss, F. C. & Métrailler, C. [Cancelled.] *Reading Music Theory from a Distance: A Corpus Study of the Thesaurus Musicarum Italicarum*. 21st Quinquennial Congress of the International Musicological Society (IMS2022), 22–26 August 2022, Athens, Greece.

Moss, F. C., Affatato, G. & Harasim, D. *Phantom Curves: Scientific Discovery through Interactive Music Visualization*. The 9th International Conference on Digital Libraries for Musicology (DLfM), In association with the annual conference of the International Association of Music Libraries (IAML), 28 July 2022, Prague, Czech Republic.

Harasim, D., Affatato, G., & **Moss, F. C.**. *midiVERTO: A Web Appli-*

cation to Visualize Tonality in Real Time. 8th International Conference on Mathematics and Computation in Music (MCM2022). Georgia State University, Atlanta, USA, 21–24 June 2022.

Bracks, C. & **Moss, F. C.** *Totoli's Art of Lelegesan: Analyzing Sociocultural Context and Musical Content.* 10th International Workshop on Folk Music Analysis 2022 (FMA2022), University of Sheffield, Sheffield, UK, June 14–17, 2022.

Meng, S., **Moss, F. C.**, & Rohrmeier, M. *Revisiting Tong Yun San Gong theory in Chinese music: a corpus study of Chinese folksongs.* 7th Analytical Approaches to World Music Conference (AAWM2022), University of Sheffield, Sheffield, UK, June 14–17, 2022.

2021: **Moss, F. C.**, Köster, M., Femminis, M., Métrailler, C., & Bavaud, F. *Digitizing a 19th-century music theory debate for computational analysis*. CHR 2021: Computational Humanities Research Conference, November 17–19, 2021, Amsterdam, The Netherlands [online].

Moss, F. C. *Polytonality and the Emergence of Tone Fields in Tailleferre's* Pastorale. 21. Jahreskongress der Gesellschaft für Musiktheorie (GMTH) – Tonsysteme und Stimmungen. October 1–3, 2021, Musik-Akademie Basel/Hochschule für Musik (FHNW), Basel, Switzerland.

Hentschel, J., **Moss, F. C.**, Markus Neuwirth, & Rohrmeier, M. *Die Entwicklung der tonalen Sprache in Beethovens Streichquartetten: Eine vergleichende Korpusstudie der Schaffensphasen*. XVII. Internationaler Kongress der Gesellschaft für Musikforschung, Universität Bonn, Abteilung für Musikwissenschaft/Sound Studies und Beethoven-Archiv des Beethoven-Hauses Bonn Bonn, Germany, September 28 – October 1 2021, Bonn, Germany.

Moss, F. C. *Digitizing the Dualism Debate: a case study in the computational analysis of historical music theory sources*. CROSS 2021 Event. 16 September 2021, École Polytechnique Fédérale de Lausanne/Université de Lausanne, Lausanne, Switzerland.

Moss, F. C., Herff, S. A., & Rohrmeier, M. *Modeling perceived tonal stability of individual and aggregated listener responses for scales and cadences*. 16th International Conference on Music Perception and Cognition & 11th triennial conference of the European Society for the Cognitive Sciences of Music. July 28–31, Sheffield, UK [online].

Moss, F. C., Herff, S. A., & Rohrmeier, M. *Individual perception of diatonic scales predicts perceived tonal fit in octatonic and hexatonic contexts*. 16th International Conference on Music Perception and Cognition & 11th triennial conference of the European Society for the Cognitive Sciences of Music. July 28–31, Sheffield, UK [online].

Hentschel, J., **Moss, F. C.**, McLeod, A., & Rohrmeier, M. *Towards a Unified Model of Chords in Western Harmony*. Music Encoding Conference [online].

Anzuoni, E., Ayhan, S., Dutto, F., McLeod, A., **Moss, F. C.**, & Rohrmeier, M. *A Historical Analysis of Harmonic Progressions Using Chord Embeddings*. 18th Sound and Music Computing Conference [online].

Moss, F. C. *Discovering the line of fifths in a large historical corpus*. Future Directions of Music Cognition, The Ohio State University, March 6–7, 2021, Columbus, OH [online]. https://doi.org/10.17605/OSF.IO/J5W6T

2020: **Moss, F. C.** *Analyzing musical pieces on the Tonnetz using the* pitchplots *Python library*. 20. Jahreskongress der Gesellschaft für Musiktheorie (GMTH), Hochschule für Musik Detmold, October 1–4, 2020, Detmold, Germany [online].

Moss, F. C. *Data-Driven Music History*. Workshop for the International Conference of Students of Systematic Musicology, York University, September 14, 2020, York, UK [online].

2019: **Moss, F. C.** *Transitions of Tonality: Perspectives on the Historical Changes of Tonal Pitch Relations from Computational Musicology, Music Theory, and the Digital Humanities*. University of Cologne, November 29, 2019, Cologne, Germany.

Moss, F. C. *Inferring Tonality from Note Distributions – Why Models Matter (Poster)*. SEMPRE Graduate Conference 2019, Cambridge, UK.

Moss, F. C. *Analyzing Tonality with Note Distributions*. First Swiss Digital Humanities Student Exchange DHX2019, Basel, Switzerland.

2018: **Moss, F. C.**, Souza, W. F. & Rohrmeier, M. *Harmony and Form in Brazilian Choro: A Corpus Study*. 15th International Conference on Music Perception and Cognition & 10th triennial conference of the European Society for the Cognitive Sciences of Music, Graz, Austria.

Aitken, C., O'Donnell, T. & Rohrmeier, M. [Poster presented by **Moss, F. C.**]. *A Maximum Likelihood Model for the Harmonic Analysis of Symbolic Music*. 15th Sound and Music Computing Conference "Sonic Crossings". Limassol, Cyprus.

Harasim, D., **Moss, F. C.** & Ramirez, M. *A Brief History of Tonality* (Poster). Applied Machine Learning Days, EPFL, Switzerland.

2017: **Moss, F. C.**, Souza, W. F. & Rohrmeier, M. *Brazilian Choro: A New Data Set of Chord Transcriptions and Analyses of Harmonic and Formal Features*. 17. Jahreskongress der Gesellschaft für Musiktheorie (GMTH) & 27. Arbeitstagung der Gesellschaft für Populärmusikforschung (GfPM) "Populäre Musik und ihre Theorien: Begegnungen – Perspektivwechsel – Transfers", Graz, Austria.

Moss, F. C., Harasim, D., Neuwirth, M. & Rohrmeier, M. *Beethovens Streichquartette – ein XML-basierter Korpus harmonischer Analysen in einem neuen Annotationssystem*. Jahrestagung der Gesellschaft für Musikforschung, Kassel, Germany.

Moss, F. C., Rohrmeier, M. *Integrating Transformational and Hierarchical Models of Extended Tonality*. 9th European Music Analysis Conference (EuroMAC), Strasbourg, France.

Rom, U., Jeßulat, A., **Moss, F. C.** & Guter, I. *Ambiguity, Illusion & Timelessness in Late and Post-Tonal Harmony*. Panel discussion at the 9th European Music Analysis Conference (EuroMAC), Strasbourg, France.

Moss, F. C., Rohrmeier, M. & Bravo, F. *Emotional Associations Evoked by Structural Properties of Musical Scales and Abstract Visual Shapes*. KOSMOS Dialogue "Music, Emotion, and Visual Imagery", Berlin, Germany.

Harasim, D., **Moss, F. C.**, Neuwirth, M. & Rohrmeier M. *Beethoven's String Quartets: Introducing an XML-Based Corpus of Harmonic Labels Using a New Annotation System*. Music Encoding Conference, Tours, France.

2016: **Moss, F. C.**, Rohrmeier, M. *Structural Ambiguities in Language and Music* (Poster). Helsinki Summer School for Cognitive Neuroscience 2016 (HSSCN 2016).

Moss, F. C., Rohrmeier, M. *A grammatical approach to tension-resolution patterns in extended tonal harmony*. Meeting of the Com-

putational Cognitive Science Group, Massachusetts Institute of Technology, Department of Brain and Cognitive Sciences, Cambridge, USA.

Moss, F. C. *Syntax of Extended Tonality: Towards a Grammar of Generalized Harmonic Functions*. Music Theory Colloquium, Boston University, College of Fine Arts, School of Music, Boston, USA.

Moss, F. C. *Generalizing Harmonic Functions: A Grammatical Approach to Extended Tonality*. Yale University, Department of Music, New Haven, USA.

Moss, F. C. *Music Cognition and Extended Tonality: Theoretical Challenges and Empirical Implications*. Research Colloquium, University of Cologne, Cologne, Germany.

2015: **Moss, F. C.** *On generative modelling of musical form*. Seminar "Mathematics and Music", TUD, Dresden, Germany.

Moss, F. C. *'The terror of sanctity.' Tonal cues for resolving dramatic ambiguities in Wagner's Parsifal*. Seminar "Understanding Musical Structures", TUD, Dresden Germany.

2014: **Moss, F. C.** *Tonality and functional equivalence: A multi-level model for the cognition of triadic progressions in 19th century music*. International conference of Students of Systematic Musicology, Goldsmiths University, London, UK.

Teaching and mentoring

University courses

Spring 2023: "Musikalische Korpusforschung"; "Konzepte und Anwendungen der Pitch-Class Set Theory"; "Digitale Tools (nicht nur) für Musikwissenschaftliche Projektarbeiten", JMU

Fall 2022: "Neo-Riemannian Theories: Analysemethoden für erweiterte Tonalität von der Spätromantik bis zur Filmmusik"; "Music Memes: Quantitative Zugänge und Theorien zu kultureller Transmission von Musik", JMU

Spring 2021: "Musical Diversity across Historical Time", lecture in class "Digital Musicology", EPFL

Fall 2020: "Introduction to Musical Corpus Studies"; "Tonality: Perspectices of historical musicology and corpus studies", lecture in "Ringvorlesung Musikwissenschaft", UzK

Spring 2020: "Musical improvisation, invention and creativity", teaching assistant; "Musical Diversity across Historical Time", lecture in class "Digital Musicology", EPFL

Spring 2018: "Digital Musicology", teaching assistant, EPFL

2015–2017: "Introduction to Musicology" and "Reading Class Musicology", with Christoph Wald, TUD

Spring 2013: "Academic Writing and Research Techniques", HfMT

PhD thesis supervision

07/2022–today: Co-supervision of Shuxin Meng (with Martin Rohrmeier), Digital Humanities, EPFL

Spring 2017: Peer-mentoring visiting PhD student Willian Fernandes de Souza, Music Theory/Composition, Universidade Federal do Rio de Janeiro (UFRJ)

Master thesis supervision

Spring 2023: Co-supervision of Oscar Aquite Pena (with Nepomuk Riva), Ethnomusicology, JMU

Spring 2020: Co-supervision of Cédric Viaccoz: "Visual Hierarchical Analysis of Tonality using the Discrete Fourier Transform", Digital Humanities (with Daniel Harasim & Martin Rohrmeier), EPFL

Bachelor thesis supervsion

Spring 2022: Co-supervision of Iris Folpmers, Artificial Intelligence, UvA, https://scripties.uba.uva.nl/search?id=record_29490

Other mentoring

Fall 2020: 3 Machine Learning graduate student projects on vector embeddings of harmony (EPFL)

Fall 2019: Machine Learning graduate student project on vector embeddings of harmony (EPFL)

Fall 2018: 3 Machine Learning graduate student projects on chord prediction with neural networks (EPFL)

Spring 2018: 4 Digital Musicology graduate student projects (EPFL)

Fall 2015: interdisciplinary project of technical design undergraduate, Technische Universität Dresden (TUD)

Media coverage

Jan 2021: "Machine learning helps retrace evolution of classical music"

https://actu.epfl.ch/news/machine-learning-helps-retrace-evolution-of-clas-2/

Aug 2020: "Bringing computational music analysis beyond the traditional canon"

https://actu.epfl.ch/news/bringing-computational-music-analysis-beyond-the-t/

Jun 2019: "A Data Science Analysis Finds Beethoven's Style In His String Quartets"

https://www.forbes.com/sites/evaamsen/2019/06/06/a-data-science-analysis-finds-beethovens-style-in-his-string-quartets/

"Decoding Beethoven's music style using data science"

https://actu.epfl.ch/news/decoding-beethoven-s-music-style-using-data-scienc/

Mar 2019: “Creating connections in a growing digital humanities community”
https://actu.epfl.ch/news/creating-connections-in-a-growing-digital-humani-2/

Skills

Languages: Python, Latex, HTML/CSS
German (native), English (fluent), French (conversational), Spanish (basic)

Utilities: Git, GitHub, Jupyter Notebook/Lab

Musical activities

2014–2017: Classical vocal octet *Vokalexkursion*

2013–2015: Cologne Cathedral Chamber Choir

2011–2013: Cologne Conservatory Chamber Choir

2008–2013: Pop a-capella group *gezwungenermaßen*

since 1994: Guitar

since 1993: Piano