

Fabian C. Moss | Curriculum Vitae

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Employment

Julius-Maximilians-Universität Würzburg (JMU) <i>Digital Music Philology and Music Theory, Würzburg, Germany</i>	Assistant Professor 2022/12–present
University of Amsterdam (UvA) <i>Cultural Analytics, Media Studies Department & Data Science Center, Amsterdam, The Netherlands</i>	Research Fellow 2022/01–2022/11
École Polytechnique Fédérale de Lausanne (EPFL) <i>Digital and Cognitive Musicology Lab (DCML), Lausanne, Switzerland</i>	Postdoctoral Researcher 2020/02–2021/12
École Polytechnique Fédérale de Lausanne (EPFL) <i>Digital and Cognitive Musicology Lab (DCML), Lausanne, Switzerland</i>	Doctoral Assistant 2017-09–2020/01
Technische Universität Dresden (TUD) <i>Dresden Music Cognition Lab (DMCL), Dresden, Germany</i>	Doctoral Assistant 2015/01–2017/08
Musikschule Leverkusen <i>Project “Jedem Kind seine Stimme” (JEKISS), Leverkusen, Germany</i>	Conductor and vocal coach 2012/11–2014/12

Education

École Polytechnique Fédérale de Lausanne (EPFL) <i>Digital and Cognitive Musicology Lab (DCML), Lausanne, Switzerland</i>	PhD student 2017/09–2019/12
Massachusetts Institute of Technology (MIT) <i>Department of Linguistics and Philosophy, Cambridge, MA, USA</i>	Visiting Student 2016/01–2016/03
Technische Universität Dresden (TUD) <i>Dresden Music Cognition Lab (DMCL), Dresden, Germany</i>	PhD student 2015/01–2017/08
Escola Superior de Musica de Catalunya (ESMUC) <i>Barcelona, Spain</i>	ERASMUS Exchange Student 2012/01–2012/04
Hochschule für Musik und Tanz Köln (HfMT) <i>Musicology, Cologne, Germany</i>	Master of Arts 2011/04–2013/09
Hochschule für Musik und Tanz Köln (HfMT) <i>Music Education (Piano Major), Cologne, Germany</i>	Staatexamen [State Examination] 2008/04–2013/09
Universität zu Köln (UzK) <i>Mathematics and Educational Sciences, Cologne, Germany</i>	Staatexamen [State Examination] 2006/10–2016/09
Friedrich-Wilhelm-Gymnasium Köln (FWG) <i>Cologne, Germany</i>	Abitur [German High School Diploma] 2002/09–2005/06

Service

Academic responsibilities

10/2023–present Chair of examination board BA Musicology, JMU. **08/2023–present** Scientific advisory board of *Corpus Monodicum* project **2023** Program Committee Member for International Conference on Multimedia Retrieval **2022** Scientific Committee for Workshop on Computational Methods in the Humanities 2022 (COMHUM 2022); **2021** Programm Committee 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' Committee, HfMT

Memberships

06/2023–present University of Wuerzburg *Graduate School Humanities*, classes “Digital Humanities” & “Philosophy, Languages, Arts” **12/2022–present** Deutsche Gesellschaft Juniorprofessur (DGJ); Arbeitskreis “Philologie und Digitalität” (JMU) **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**

Reviewer activity

Journals: *Digital Scholarship in the Humanities*; *Empirical Musicology Review*; *Music and Science*; *Music Theory and Analysis*; *Royal Society Open Science*; *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 Congress on Mathematics and Computation in Music (MCM)*; *International Conference on Multimedia Retrieval (ICMR)*; *International Conference on Music Perception and Cognition (ICMPC)*; *International Conference of Students of Systematic Musicology (SysMus)*; *Jahrestagung der Gesellschaft für Informatik (GI)*, *Workshop zu Informatik und Digital Humanities (InfDH)*

Organization

2024: Workshop “Bayesian Modeling for Musicology” with Christoph Finkensiep (University of Amsterdam) and Jan Hajič (Charles University, Prague), 1–3 February, 2024. Zentrum für Philologie und Digitalität (ZPD), JMU, Würzburg, Germany. <https://sites.google.com/view/bayesmusic2024/>

2023: Lecture series “CODAMUS: Computational and Digital Approaches to Music Scholarship”, 18 October, 2023–07 February, 2024. Zentrum für Philologie und Digitalität (ZPD), JMU, Würzburg, Germany. <https://codamus.pubpub.org/>

Kontrapunkt-Werkstatt “Latest Tools for Analyzing Early Music”, with Hansjörg Ewert, Florian Vogt, Johannes Menke, & Ugo Bindini, 20–21 October, Würzburg, Germany. <https://www.musikwissenschaft.uni-wuerzburg.de/diversa/tagungen/basel23/>

Open project space for 16 contributions “Methoden und Ziele digitaler Musikwissenschaft: Ein Marktplatz aktueller Forschung”, with Stefanie Acquavella-Rauch, Martin Albrecht-Hohmeier, Irmlind Capelle, Jürgen Diet, & Jens Dufner. Jahrestagung der Gesellschaft für Musikforschung, 4–7 October, 2023, Saarbrücken, Germany.

<https://www.uni-saarland.de/methoden-und-ziele-digitaler-musikwissenschaft-ein-marktplatz-aktueller-forschung.html>

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, Technical University Dresden, Germany.

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

Funding

Grants

Bayerisches Hochschulförderprogramm zur Anbahnung & Vertiefung internat. Forschungsk Kooperationen	EUR 3,863
<i>Digital Choro: Exploring the potential of digitization and computational models for Brazil's musical cultural heritage</i>	2024/01–2024/08
Fabian C. Moss	
WueDIVE – Digitale Innovationen in der Lehre	EUR 3,915
<i>Virtual tonal spaces (VTS): towards an interactive digital environment for music theory</i>	2023/10–2024/06
Fabian C. Moss	
Julius-Maximilians-Universität Würzburg	EUR 8,310
<i>Start-up funding to prepare grant application [Anschubförderung zur Antragsstellung]</i>	2022/12–2023/11
Fabian C. Moss	
Durham University Seedcorn Grant	GBP 7,475
<i>Funding for proof-of-concept study to support larger grant application</i>	2022/06–2023/05
Tuomas Eerola, Fabian C. Moss	
University of Amsterdam Data Science Centre Accelerate Program (Matching Funding)	EUR 192,000
<i>Data Scientists/Engineers Cultural Data Access & Visualization, Spatial Humanities, Cultural Data Analysis</i>	2022/04–2024/12
Tobias Blanke, Fabian C. Moss, Julia Noordegraaf, & Thomas Poell	

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!^{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

Journal articles

- Hentschel, J., Rammos, Y., **Moss, F. C.**, Neuwirth, M., & Rohrmeier, M. (2024). An Annotated Corpus of Tonal Piano Music from the Long 19th Century. *Empirical Musicology Review*, 18(1), 84–95. <https://doi.org/10.18061/emr.v18i1.8903>
- Moss, F. C.**, Neuwirth, M., & Rohrmeier, M. (2022). The line of fifths and the co-evolution of tonal pitch-classes. *Journal of Mathematics and Music*, 17(2), 173–197. <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. (2021a). 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>

Conference papers

- Eipert, T., & **Moss, F. C.** (2023b, November). MonodiKit: A data model and toolkit for medieval monophonic chant. In M. E. Thoma (Ed.), *Proceedings of the 10th International Conference on Digital Libraries for Musicology* (pp. 67–71). Association for Computing Machinery. <https://doi.org/10.1145/3625135.3625145>
- Nakamura, E., Eipert, T., & **Moss, F. C.** (2023). Historical Changes of Modes and their Substructure Modeled as Pitch Distributions in Plainchant from the 1100s to the 1500s. In Kitahara, Tetsuro, Aramaki, Mitsuko, Kronland-Martinet, Richard, & Ystad, Sølvi (Eds.), *Proceedings of the 16th International Symposium on Computer Music Multidisciplinary Research* (pp. 450–461). <https://doi.org/10.5281/zenodo.10113458>
- Bracks, C., & **Moss, F. C.** (2022, May). Totoli's Art of Leleges: 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. Lluís-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, July). 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, June). A Historical Analysis of Harmonic Progressions Using Chord Embeddings. In D. A. Mauro, S. Spag-

nol, & 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 multi-level 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).

Book chapters

Moss, F. C. (2024). Transatlantic transformations: On Neo-Riemannian theories. In S. Keym (Ed.), *Kreative Missverständnisse oder universale Kunstgesetze? Hugo Riemann und der internationale Musikwissenstransfer* (pp. 367–377). Georg Olms Verlag.

Edited volumes and chapters

Analysis Markup and Harmonies. (2023). In A. Seipelt & **F. C. Moss** (Eds.), J. Kepper & P. D. Roland (Eds.), *The Music Encoding Initiative Guidelines* (Version 5.0, pp. 299–324).

Outreach

Invited talks and workshops

2024: **Moss, F. C.** *Corpus Research and Choro: Potential and Challenges for Digital Methods*. 3 April 2024. School of Music, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil.

2023: **Moss, F. C.** *Virtual Tonal Spaces (VTS): towards an interactive digital environment for music theory*. Tag der Lehre 2023. Julius-Maximilians-Universität Würzburg, 22 November 2023, Würzburg, Germany.

Moss, F. C. *10 secret rules for a degree in DH—you won't believe no. 7!!*.

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

Book reviews

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/10.1111/MTA.4.1.71>

Data sets

Eipert, T., & **Moss, F. C.** (2023a, October). *Corpus Troporum Dataset*. OSF. <https://doi.org/10.17605/OSF.IO/FKQDQ5>

Moss, F. C., Nápoles López, N., Köster, M., & Rizo, D. (2022a, September). 19MT-OMR: A dataset for multimodal Optical Music Recognition (Data Report). Data Report. OSF. <https://doi.org/10.17605/OSF.IO/QM9Z5>

Moss, F. C. (2020a, June 6). *Choro Songbook Corpus*. Zenodo. <https://doi.org/10.5281/zenodo.3881347>

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

Moss, F. C., Loayza, T., & Rohrmeier, M. (2019, July 1). *Pitchplots*. <https://doi.org/10.5281/zenodo.3265393>

Blog posts

Moss, F. C. (2023, September 26). *Vorsicht, Sackgasse! Ein Plädoyer für mehr Intradisziplinarität*. musicconn.kontrovers - Blog des FID Musikwissenschaft. https://kontrovers.musicconn.de/2023/09/26/digitalitaet_moss/
English version: <https://osf.iohttps://osf.io/98zxn/>

Moss, F. C. (2020b, October 5). *A computational model for note distributions in musical pieces*. Digital and Cognitive Musicology Lab News Blog. <https://www.epfl.ch/labs/dcml/computational-model-note-dists/>

Moss, F. C. (2020c, September 28). *Tracing historical changes in the exploration of tonal space*. Digital and Cognitive Musicology Lab News Blog. <https://www.epfl.ch/labs/dcml/tracing-historical-changes/>

Theses

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

Moss, F. C. (2012, November). *"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>

1st DH Alumni Event, 17 November 2023. Digital Humanities Institute, École Polytechnique Fédérale de Lausanne, Switzerland.

Moss, F. C. *Counting notes: Research questions and methods in music corpus studies*. Seminar "History and Theory of Digital Humanities", Université de Lausanne, Lausanne, Switzerland, 12 October 2023.

Moss, F. C. *Töne zählen: Forschungsfragen und Methoden musikwissenschaftlicher Korpusstudien in historischer und epistemologischer Perspektive*. Talk in lecture series "Transdisziplinäre Aspekte