

Curriculum Vitae

Name: Dr. Jakob Abeßer
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Birth date/place: 03. May 1983 / Jena
Family status: Married, two children
Citizenship: German



Recent Positions:	since 2020	Senior Scientist, Fraunhofer IDMT, Ilmenau, Germany
	since 2018	Principal Investigator (DFG-funded project “Informed Sound Activity Detection in Music Recordings (ISAD)”)
	2014 – 2018	Postdoctoral Researcher, Semantic Music Technologies, Fraunhofer IDMT, Ilmenau, Germany
	2012 – 2017	Wissenschaftlicher Mitarbeiter / Postdoctoral Researcher, Jazzomat Research Project, University of Music Franz Liszt, Weimar, Germany
	2008 – 2014	Wissenschaftlicher Mitarbeiter, Semantic Music Technologies, Fraunhofer Institute for Digital Media Technologies (IDMT), Ilmenau, Germany
Education:	2014	Ph.D., Media Technology, Technische Universität Ilmenau
	2008	Diplom, Computer Engineering (Ingenieurinformatik), Technische Universität Ilmenau
	2001	Abitur, Goetheschule Ilmenau
Research Stays & Study Programs:	05/2010 - 08/2010	Doctoral research stay, Finnish Centre of Excellence in Interdisciplinary Music Research, University of Jyväskylä, Finland (DAAD scholarship “Kurzzeitstipendium für Doktoranden”)
	09/2005 – 02/2006	Computer science study at Université Paul Verlain, Metz, France (ERASMUS scholarship)
Research Areas:		Machine Listening, Music Information Retrieval, Audio Signal Processing, Machine Learning, Deep Learning

Scientific Activities & Projects (Selection):

- Member of the International Society for Music Information Retrieval
- BMBF-funded project: GlobalMusic2one (2008-2011): Adaptive, hybride Suchtechnologien für Globale Musikbestände
- BMBF-funded project: SyncGlobal (2012-2013): Globale Musiksuche zur cross-modalen Synchronisation mit Videoinhalten
- DFG-Project (2018-2021): Informed Sound Activity Detection in Music Recordings (ISAD)
- DFG-Project (2012-2017): Melodisch-rhythmische Gestaltung von Jazzimprovisationen. Rechnerbasierte Musikanalyse einstimmiger Jazzsoli
- DFG-Project (2010-2013): Entwicklung und empirische Validierung eines Modells musikpraktischer Kompetenzen (Kopra-M)

Awards & Honors:

- 2019: Best paper award (14th International Symposium on Computer Music Multidisciplinary Research) with Matthias Nowakowski and Christof Weiß
- 2010: DAAD scholarship “Kurzzeitstipendium für Doktoranden”
- 2005-2006: ERASMUS scholarship

Books, Book Chapters, Articles

- [1] J. Abeßer, “Automatic string detection for bass guitar and electric guitar,” in *From Sounds to Music and Emotions*, ser. Lecture Notes in Computer Science, M. Aramaki, M. Barthet, R. Kronland-Martinet, and S. Ystad, Eds. London, UK: Springer, 2012, vol. 7900, pp. 333–352.
- [2] —, “Automatic transcription of bass guitar tracks applied for music genre classification and sound synthesis,” Ph.D. dissertation, Technische Universität Ilmenau, 2014.
- [3] —, “A review of deep learning based methods for acoustic scene classification,” *applied sciences*, vol. 10, no. 6, 2020.
- [4] J. Abeßer, K. Frieler, E. Cano, M. Pfeiderer, and W.-G. Zaddach, “Score-informed analysis of tuning, intonation, pitch modulation, and dynamics in jazz solos,” *IEEE/ACM Transactions on Audio, Speech, and Language Processing*, vol. 25, no. 1, pp. 168–177, Jan 2017.
- [5] J. Abeßer, H. Lukashevich, and P. Bräuer, “Classification of Music Genres based on Repetitive Basslines,” *Journal of New Music Research*, vol. 41, no. 3, pp. 239–257, 2012.
- [6] J. Abeßer and G. Schuller, “Instrument-centered music transcription of solo bass guitar recordings,” *IEEE/ACM Transactions on Audio, Speech, and Language Processing*, vol. 25, no. 9, pp. 1741–1750, Sep. 2017.
- [7] K. Brandenburg, C. Dittmar, M. Gruhne, J. Abeßer, H. Lukashevich, P. Dunker, D. Gärtner, K. Wolter, S. Nowak, and H. Großmann, “Music search and recommendation,” in *Handbook of multimedia for digital entertainment and arts*, B. Furth, Ed. Springer, 2009, pp. 349–384.
- [8] C. Dittmar, E. Cano, J. Abeßer, and S. Grollmisch, “Music Information Retrieval Meets Music Education,” in *Multimodal Music Processing*, ser. Dagstuhl Follow-Ups, M. Müller, M. Goto, and M. Schedl, Eds. Dagstuhl, Germany: Schloss Dagstuhl–Leibniz-Zentrum fuer Informatik, 2012, vol. 3, pp. 95–120. [Online]. Available: <http://drops.dagstuhl.de/opus/volltexte/2012/3468>
- [9] K. Frieler, M. Pfeiderer, J. Abeßer, and W.-G. Zaddach., “Midlevel analysis of monophonic jazz solos. a new approach to the study of improvisation,” *Musicae Scientiae*, vol. 20, no. 2, pp. 143–162, 2016.
- [10] M. Pfeiderer, K. Frieler, J. Abeßer, W.-G. Zaddach, and B. Burkhart, Eds., *Inside the Jazzomat - New Perspectives for Jazz Research*. Schott Campus, 2017.

For a full list see: <https://jakobabesser.github.io/publications.html>