

Rhythm under the Microscope. An Interdisciplinary Conference on Microrhythm and Groove in Popular Music.

Vienna, 25-27 September 2025

References

- Abel, M. (2014). *Groove: An Aesthetic of Measured Time*. Boston: Brill.
- Addressi, A. R. (2014). Developing a theoretical foundation for the reflexive interaction paradigm with implications for training music skills and creativity. *Psychomusicology: Music, Mind, and Brain*, 24(3), 214–230.
- Agawu, V. K. (2003). *Representing African music: Postcolonial notes, queries, positions*. Routledge.
- Ahrens, L., Lepa, S. (2024). *Dimensionen der Groove-Erfahrung revisited – Ein Plädoyer für größere Stimuluspools bei der Instrumententwicklung*. Paper submitted for „Digitalisierung in der Musikpsychologie“ (40. Jahrestagung der Deutschen Gesellschaft für Musikpsychologie). München.
- Amman, A. (1996). Gestalten in der Quantenmechanik. *Zeitschrift für Parapsychologie und Grenzgebiete der Psychologie*, 38(1/2).
- Andean, J. (2020). Rhythm in acousmatic music. *Organised Sound*, 25(2), 214–220.
<https://doi.org/10.1017/S1355771820000126>.
- Arom, S. (1991). *African polyphony and polyrhythm*. Cambridge University Press.
<https://doi.org/10.1017/CBO9780511518317>.
- Atmanspacher, H., Filk, T. (2010). A proposed test of temporal nonlocality in bistable perception. *Journal of Mathematical Psychology*, 54.
- Bakhtin, M. (1986). The Problem of Speech Genres. *Speech Genres and other Late Essays*. Ed. M. Bakhtin, Caryl Emerson and Michael Holquist. 60–102. Austin: University of Texas Press.
- Barnes, R., Jones, M.R. (2000). Expectancy, Attention and Time. *Cognitive Psychology*, 4(3), 253–311. Academic Press.
- Batista, P. A. G. (2001). *Em busca do suingue*, http://batuca.no.sapo.pt/suingue/suingue_pt.htm, Consulted on 04/04/2004.
- beim Graben, P. (2006). Pragmatic Information in Dynamic Semantics. *Mind and Matter*, 4(2).
- Benadon, F. (2006). Slicing the beat: Jazz eighth-notes as expressive microrhythm. *Ethnomusicology*, 50(1), 73–98. <https://doi.org/10.2307/20174424>
- Bengtsson, I., Gabrielsson, A. (1977). Rhythm Research in Uppsala. *Music, Room, and Acoustic*, 19–56. Stockholm: Royal Swedish Academy of Music.

- Bengtsson, I., Gabrielsson, A., Thorsén, S. (1969). Empirisk rytmforskning [Empirical Rhythm Research]. *Svensk tidskrift för musikforskning*. 48–118.
- Benson P., Kathios N., Loui P. (2024). Predictive coding in musical anhedonia: A study of groove. *PLOS ONE*, 19(4): e0301478. <https://doi.org/10.1371/journal.pone.0301478>
- Biamonte, N. (2014). Formal Functions of Metric Dissonances in Rock Music. *Music Theory Online*, 20(2).
- Bilmes, J. (1992). A Model for Musical Rhythm. *Proceedings of the ICMC*, San Jose CA.
- Bjerke, K. Y. (2010). Timbral Relationships and Microrhythmic Tension: Shaping the Groove Experience Through Sound. *Musical Rhythm in the Age of Digital Reproduction*. Ed. A. Danielsen. 85–101. Surrey and Burlington, VT: Ashgate.
- Boden, M. A. (2004). *The creative mind: Myths and mechanisms*. Psychology Press.
- Bouwer, F. L., Burgoyne, J. A., Odijk, D., Honing, H., & Grahn, J. A. (2018). What makes a rhythm complex? The influence of musical training and accent type on beat perception. *PLoS ONE*, 13(1): e0190322. <https://doi.org/10.1371/journal.pone.0190322>.
- Bowcott, N. (2017). AC/DC's Angus Young on the Rhythm Guitar Playing of Malcolm Young. *Guitar World*. November 18, 2017. (Accessed March 7, 2021).
- Bozza, A. (2009). *Why AC/DC Matters*. HarperCollins Publishers.
- Brett, T. (2020). Prince's Rhythm Programming: 1980s Music Production and the Esthetics of the LM-1 Drum Machine. *Popular Music and Society*, 43(3), 244–261. <https://doi.org/10.1080/03007766.2020.1757813>
- Brøvig-Hanssen, R., Skandvik, B., Aareskjold-Drecker, J.M., Danielsen, A. (2022). A Grid in Flux. Sound and Timing in Electronic Dance Music. *Music Theory Spectrum*, 44(1), 1–16.
- Brown, A. R. (2018). Creative improvisation with a reflexive musical bot. *Digital Creativity*, 29(1), 5–18.
- Brown, M. and Dempster, D.J. (1989). The Scientific Image of Music Theory. *Journal of Music Theory*, 33(1), 63–106.
- Busemeyer, J. R., Wang, Z. (2015). What Is Quantum Cognition, and How Is It Applied to Psychology? *Current Directions in Psychological Science*, 24(3).
- Butterfield, M. (2010). Participatory discrepancies and the perception of beats in jazz. *Music perception*, 27(3), 157–176.
- Butterfield, M. (2011). Why do jazz musicians swing their eighth notes? *Music Theory Spectrum*, 33(1), 3–26. <https://doi.org/10.1525/mts.2011.33.1.3>
- Butterfield, M. (2013). Multiparametric complexity in Charlie Parker's "Confirmation". *Musical implications: Essays in honor of Eugene Narmour*. 57–71. Eds. L.F. Bernstein, A. Rozin. Pendragon Press.

- Câmara, G.S. (2016). *Swing in early Funk and Jazz-Funk (1967-1971): micro-rhythmic and macro-structural investigations*. (Master Thesis). University of Oslo.
- Câmara, G.S., Nymoen, K., Lartillot, O., Danielsen, A. (2020a). Effects of instructed timing on electric guitar and bass sound in groove performance. *Journal of the Acoustical Society of America*, 147(2), 1028-1041. <https://doi.org/10.1121/10.0000724>
- Câmara, G.S., Nymoen, K., Lartillot, O., Danielsen, A. (2020b). Effects of instructed timing style, reference, and pattern on drum kit sound in groove-based performance. *Music Perception* 38, 1–26. <https://doi.org/10.1525/mp.2020.38.1.1>
- Cannam, C., Landone, C., Sandler, M. (2010). Sonic visualiser: An open source application for viewing, analysing, and annotating music audio files. *Proceedings of the ACM Multimedia 2010 International Conference*.
- Carlsen, K., Witek, M.A.G. (2010). Simultaneous Rhythmic Events with Different Schematic Affiliations: Microtiming and Dynamic Attending in Two Contemporary R&B Grooves. *Musical Rhythm in the Age of Digital Reproduction*. Ed. A. Danielsen. 51–68. Surrey and Burlington, VT: Ashgate.
- Chaffee, G. (1976). *Sticking Patterns*. Miami: GC Music.
- Charnas, D. (2022). *Dilla Time. The Life and Afterlife of J Dilla, the Hip-Hop Producer Who Reinvented Rhythm*. London.
- Chernoff, J. M. (1979). *African Rhythm and African Sensibility. Aesthetics and Social Action in African Musical Idioms*. Chicago: University of Chicago Press.
- Chew, G. (2001). Articulation and Phrasing. *Grove Music Online*. (Accessed March 7, 2021), <http://www.oxfordmusiconline.com/grovemusic>
- Chor, I. (2010). Microtiming and Rhythmic Structure in Clave-Based Music: A Quantitative Study. In *Musical Rhythm in the Age of Digital Reproduction*. Ed. A. Danielsen. 37–50. Ashgate Popular and Folk Music Series. Routledge.
- Clarke, E.F. (1989). The perception of expressive timing in music. *Psychological Research*, 51(1). 2–9.
- Clough, J., & Douthett, J. (1991). Maximally Even Sets. *Journal of Music Theory*, 35(1/2), 93–173. <https://doi.org/10.2307/843811>
- Cohn, R. (2016). A Platonic Model of Funky Rhythms. *Journal of the Society for Music Theory*, 22(2). <https://doi.org/10.30535/mto.22.2.1>
- Collier, G. L., Collier, J. L. (2002). A study of timing in two Louis Armstrong solos. *Music Perception*, 19(3), 463–483. <https://doi.org/10.1525/mp.2002.19.3.463>
- Corcoran, C., Frieler, K. (2021). Playing it straight: Analyzing jazz soloists' swing eighth-note distributions with the Weimar jazz database. *Music Perception*, 38(4), 372–385.
- Cook, N., Leech-Wilkinson, D. (2009). *A Musicologist's Guide to Sonic Visualiser*. CHARM Research Centre for the History and Analysis of Recorded Music. London. (Accessed March 7, 2021), <https://charm.kcl.ac.uk/>

- Cowdery, J. R. et al. (1995). [The Theory of Participatory Discrepancies: A Progress Report; Searching for Swing: Participatory Discrepancies in the Jazz Rhythm Section; Rhythm as Duration of Sounds in "Tumba Francesa"]: Responses. *Ethnomusicology*, 39(1), 73–96. <https://doi.org/10.2307/852201>
- Crispin, D., Gilmore, B. (Eds.). (2014). *Artistic Experimentation in Music: An Anthologie*. Leuven: Leuven University Press.
- Danielsen, A. (2006). *Presence and Pleasure – The Funk Grooves of James Brown and Parliament*. Middletown, CT: Wesleyan University Press.
- Danielsen, A. (2010). *Musical Rhythm in the Age of Digital Reproduction*. Surrey and Burlington, VT: Ashgate.
- Danielsen, A. (2012). The Sound of Crossover: Micro-rhythm and Sonic Pleasure in Michael Jackson's "Don't Stop 'Til You Get Enough". *Popular Music and Society*, 35, 151–168. 10.1080/03007766.2011.616298.
- Danielsen, A. (2018). Time and Time Again: Repetition and Difference in Repetitive Music. *Over and Over. Exploring Repetition in Popular Music*. Eds. O Julien and C Levaux. Bloomsbury.
- Danielsen, A. (2019). Pulse as Dynamic Attending. *The Routledge Companion to Popular Music Analysis*. Routledge, 179–189.
- Danielsen, A., Brøvig, R., Bøhler, K. K., Câmara, G. S., Haugen, M. R., E., J., London, J. (2024). There's More to Timing than Time: Investigating Musical Microrhythm Across Disciplines and Cultures. *Music Perception*, 41(3), 176–198. <https://doi.org/10.1525/mp.2024.41.3.176>
- Danielsen, A., Haugen, M. R., Jensenius, A. R. (2015). Moving to the Beat: Studying Entrainment to Micro-Rhythmic Changes in Pulse by Motion Capture. *Timing and Time Perception*, 3, 133–154.
- Danielsen, A., Nymoén, K., Anderson, E., Câmara, G., Langerød, M., Thompson, M., London, J. (2019). Where is the beat in that note? effects of attack, duration, and frequency on the perceived timing of musical and quasi-musical sounds. *Journal of Experimental Psychology: Human Perception and Performance*, 45, 402–418. <https://doi.org/10.1037/xhp0000611>
- Danielsen, A., Câmara, G.S. (2018). Groove. *The Oxford Handbook of Critical Concepts in Music Theory*. 271-294. Eds. A. Rehding, S. Rings. New York.
- Danielsen, A., Waadeland, C., Witek, M.A.G. & Sundt, H. (2015) Effects of instructed timing and tempo on snare drum sound in drum kit performance. *The Journal of the Acoustical Society of America*, 138. 10.1121/1.4930950.
- Davies, M.E.P.; Madison, G., Silva, P., Goyon, F. (2013). The effect of microtiming deviations on the perception of groove in short rhythms. *Music perception: An interdisciplinary journal*, 30(5), 497–510. University of California Press.
- Diaz, Z. (2018). Analysis of sampling techniques by J Dilla in *Donuts* (Electronic Theses and Dissertations, 197). <https://scholarworks.sfasu.edu/etds/197>
- Dolan, B. (2009). *Inventing Entertainment. The Player Piano and the Origins of an American Musical Industry*. Lanham.

- Doleac, B. (2013). Strictly Second Line: Funk, Jazz, and the New Orleans Beat. *Ethnomusicology Review*, 18. UCLA: GSA Publications. <https://ethnomusicologyreview.ucla.edu> (Accessed March 7, 2021).
- Duinker, B. (2022). Functions of Expressive Timing in Hip-Hop Flow. *Journal of Popular Music Studies*, 34(1), 90–117. doi:10.1525/jpms.2022.34.1.90
- During, J. (1997). Rythmes ovoïdes et quadrature du cycle. *Cahiers d'ethnomusicologie. Anciennement Cahiers de musiques traditionnelles* (10), 17–36.
- Dutilleul, P. et al. (2002). Time Segment Processing. *DAFX – Digital Audio Effects*. Ed. U. Zölzer. Wiley & Sons.
- Dworsky, A., Sansby, B. (2015). *A Rhythmic Vocabulary*. Dancing Hands Music.
- Ehm, W., Bach, M., Kornmeier, J. (2011). Ambiguous figures and binding: EEG frequency modulations during multistable perception. *Psychophysiology*, 48.
- Englehart, M., Durieux, A. (2006). *AC/DC: Maximum Rock & Roll. The Ultimate Story of the World's Greatest Rock-And-Roll Band*. HarperCollins Publishers.
- Ferguson, H. (1975). *Keyboard Interpretation from the Fourteenth to the Nineteenth Century. An Introduction*. Oxford University Press.
- Filk, T. (2020). *'Quantum' And 'Quantum-Like' – An Introduction to Quantum Theory and its Applications in Cognitive and Social Sciences*. Institute of Advanced Studies, Köszeg.
- Foote, J. (2000). Automatic Audio Segmentation Using a Measure of Audio Novelty. *Proc. of IEEE, International Conference on Multimedia and Expo*, 1.
- Foote, J., Cooper, M. (2003). Summarizing Popular Music via Structural Similarity Analysis. *2003 IEEE Workshop on Applications of Signal Processing to Audio and Acoustics*. New Paltz, NY, October 19–22.
- Foster, D., Dixon, S. (2021). Filosax: A dataset of annotated jazz saxophone recordings. *22nd International Society for Music Information Retrieval Conference*.
- Frane, A. (2017). Swing Rhythm in Classic Drum Breaks From Hip-Hop's Breakbeat Canon. *Music Perception*, 34(3), 291.
- Frane, A. V., Shams, L. (2017). Effects of tempo, swing density, and listener's drumming experience, on swing detection thresholds for drum rhythms. *Journal of the Acoustical Society of America*, 141(6), 4200–4208. <https://doi.org/10.1121/1.4984285>
- Freeman, P., Lacey, L. (2002). Swing and groove: contextual rhythmic nuance in live performance. *Proceedings of the 7th International Conference on Music Perception and Cognition*. Eds. C. Stevens et al. Sydney: Casual Productions, 548–550.
- Friberg, A. & Sundström, A. (2002). Swing ratios and ensemble timing in jazz performance: Evidence for a common rhythmic pattern. *Music Perception*, 19(3), 333–349. <https://doi.org/10.1525/mp.2002.19.3.333>

- Friberg, A., Bresin, R., Sundberg, J. (2006). Overview of the KTH rule system for musical performance. *Advances in Cognitive Psychology*, 2(2–3).
- Friberg, A., Sundberg, J. (1993). Perception of Just Noticeable Time Displacement of a Tone Presented in a Metrical Sequence at Different Tempos. *Speech, Music and Hearing Quarterly Progress and Status Report*, 34(2–3), 49–56. KTH Vetenskap och konst.
- Friberg, A., Sundberg, J. (1995). Time discrimination in a monotonic, isochronous sequence. *Journal of the Acoustical Society of America*, 98, 2524–2531. <https://doi.org/10.1121/1.413218>
- Fricke J. P. & Louven, C. (2009) Psychoakustische Grundlagen des Musikhörens. *Musikpsychologie*. Ed. H. Bruhn, R. Kopiez, A. C. Lehmann. Reinbek bei Hamburg, 2. Aufl.
- Friedland, E. (1999). Get Great Time! 13 Groovy Ways to Make Your Playing Click. *Bass Player*, 10(4). 42-83.
- Frühauf, J., Kopiez, R., Platz, F. (2013). Music on the timing grid: The influence of microtiming on the perceived groove quality of a simple drum pattern performance. *Musicae Scientiae*, 17(2), 246–260. <https://doi.org/10.1177/1029864913486793>
- Gabrielsson, A. (1985). Interplay between Analysis and Synthesis in Studies of Music Performance and Music Experience. *Music Perception*, 3(1), 59–86. <https://doi.org/10.2307/40285322>
- Gerischer, C. (2003). *O Suingue Baiano. Mikrorhythmische Phänomene in baianischer Perkussion*. Frankfurt: Peter Lang.
- Gerischer, C. (2006). Suingue Baiano. Rhythmic Feeling and Microrhythmic Phenomena in Brazilian Percussion. *Ethnomusicology*, 50(1), 99–119.
- Gilbers, S. (2021). *Ambitionz az a Ridah: 2Pac's changing accent and flow in light of regional variation in African-American English speech and hip-hop music*. University of Groningen.
- Gilbers, S., Hoeksema, N., de Bot, K., Lowie, W. (2019). *Regional Variation in West and East Coast African-American English Prosody and Rap Flows*. *Lang Speech*, 23830919881479. doi:10.1177/0023830919881479
- Glass, D. (2011). Drummers. Ian Paice: Influence. *Modern Drummer*. Online article. (Accessed March 8, 2021), <https://www.moderndrummer.com/>
- Glass, D. (2013). Birth of Rock Backbeats and Straight Eighths. *Drum! Play Better Now*. July 16, 2013. Online article. (Accessed March 8, 2021), <https://drummagazine.com/>
- Gouyon, F. (2007). Microtiming in 'Samba de Roda' - Preliminary experiments with polyphonic audio. *SBCM Proceedings*
- Gracyk, T. (1996). *Rhythm and Noise: An Aesthetic of Rock*. London: Tauris.
- Graeff, N. (2014). Fundamentos rítmicos africanos para a pesquisa da música afro-brasileira: O exemplo do Samba de Roda. *Música e Cultura*, 9(1).
- Graf, W. (1980). Vergleichende Musikwissenschaft, Gesammelte Aufsätze. Ed. Franz Födermayr. *Acta Ethnologica et Linguistica*, 50. Vienna.

- Guillot, G. (2004). *Symptômes d'une organisation musicale incomprise : génétique et diffusion du rythme du samba moderne*. (Master). François-Rabelais University, Tours.
- Guillot, G. (2008). Analyse des variations de gongué d'une toada de maracatu nação (Brésil) - Cycle et variation. *Musimédiane*.
- Guillot, G. (2011). *Des objets musicaux implicites à leur didactisation formelle exogène: transposition didactique interne du suíngue brasileiro en France*. (Ph.D). Université Paris- Sorbonne (Paris IV).
- Guillot, G. (2022). Multi-level Anisochrony in Afro-Brazilian music. *GMTH Proceedings*, 406–421. <https://doi.org/10.31751/p.200>
- Guillot, G. (2022a). Persistence of common traits in Afro-Brazilian musical traditions despite the diversity of social-cultural contexts. *Understanding America: the essential contribution of Afro- American music to the sociocultural meaning of the continent*. Publication Center of the Pontifical Catholic University of Ecuador.
- Guillot, G. (2022b). *La dimension culturelle dans l'aménagement du milieu au sein des processus ethnodidactiques mis en œuvre dans la transmission de musiques afro-brésiliennes au Brésil et en France*. *Journal de Recherche en Education Musicale*, 13(1), 5–23.
- Hasty, C. F. (1997). *Meter as Rhythm*. Oxford University Press.
- Haugen, M. R. (2017). Investigating Musical Meter as Shape: Two Case Studies of Brazilian Samba and Norwegian Telespringar. *Proceedings of the 25th Anniversary Conference of the European Society for the Cognitive Sciences of Music*. 67–74. Ed. E. Van Dyck.
- Haugen, M. R., Danielsen, A. (2020). Effect of tempo on relative note durations in a performed samba groove. *Journal of New Music Research*, 49(4), 349–361. <https://doi.org/10.1080/09298215.2020.1767655>
- Hefling, S. E. (1993). *Rhythmic Alteration in Seventeenth- and Eighteenth-Century Music: Notes Inégales and Overdotting*. New York: Schirmer Books.
- Hennig H., Fleischmann, R. et al. (2011). The Nature and Perception of Fluctuations in Human Musical Rhythms. *PLoS ONE*, 6(10): e26457
- Hirsh, I. J. (1959). Auditory perception of temporal order. *Journal of the Acoustical Society of America*, 31(6), 759–767. <https://doi.org/10.1121/1.1907782>.
- Hodeir, A. (1956) *Jazz: its evolution and essence*. (D. Noakes, Trans.). New York: Grove.
- Honing, H. (2012). Structure and Interpretation of Rhythm in Music. *The Psychology of Music* (3rd ed., 367–404). Ed. D. Deutsch. Academic Press, Elsevier.
- Hosken, F. (2021). *The Pocket: A Theory of Beats as Domain*. ProQuest Dissertations Publishing.
- Hughes, T.S. (2003). *Groove and flow: Six analytical essays on the music of Stevie Wonder*. ProQuest Dissertations Publishing.

- Iyer, V. (1998). *Microstructures of Feel, Macrostructures of Sound: Embodied Cognition in West African and African-American Musics* [viewed 21 June 2015]. <http://archive.cnmat.berkeley.edu/People/Vijay/04.%20Music%20and%20Embodiment.html#anchor239805>
- Iyer, V. (2002). Embodied mind, situated cognition, and expressive microtiming in African- American music. *Music Perception*, 19(3), 387–414. <https://doi.org/10.1525/mp.2002.19.3.387>
- Jacobsen, E., & Danielsen, A. (2023). “Hard” or “soft”: Shaping microtiming through sonic features in jazz-related groove performance. *Journal of Jazz Studies*, 14(2), 153–185. <https://doi.org/10.14713/jjs.v14i2.258>
- Jacoby, N., McDermott, J. H. (2017). Integer Ratio Priors on Musical Rhythm Revealed Cross-culturally by Iterated Reproduction. *Current Biology*, 27(3), 359–370. <https://doi.org/10.1016/j.cub.2016.12.031>
- Janata, P., Tomic, S.T., Haberman, J. (2011). Sensorimotor Coupling in Music and the Psychology of the Groove. *Journal of Experimental Psychology General*, 141(1), 54–75.
- Jankowsky, R. C. (2013). Rhythmic Elasticity, Metric Ambiguity, and Ritual Teleology in Tunisian Stambeli. *Analytical Approaches to World Music*, 3(1).
- Jerold, B. (2014). *Notes Inégales: A Definitive New Parameter*. *Early Music*, 42(2), 273–289.
- Johansson, M. (2010). The Concept of Rhythmic Tolerance: Examining Flexible Grooves in Scandinavian Folk Fiddling. *Musical Rhythm in the Age of Digital Reproduction*. Ed. A. Danielsen. 69–83. Surrey and Burlington, VT: Ashgate.
- Jones, M. R. (2008). Musical time. *The oxford handbook of music psychology*. 81–92. Eds. S. Hallam, I. Cross, M.Thaut. Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780199298457.013.0008>
- Jones, M.R. (2004). Attention and Timing. *Ecological Psychoacoustics*. Ed. J. G. Neuhoff. 49–85. Academic Press.
- Keil, C. (1966). Motion and Feeling Through Music. *Journal of Aesthetics and Art Criticism*, 24, 337-349.
- Keil, C. (1987). Participatory Discrepancies and the Power of Music. *Cultural Anthropology*, 2(3), 275–283.
- Keil, C. (1995). The Theory of Participatory Discrepancies. A Progress Report. *Ethnomusicology*, 39, 1–20.
- Keil, C., Feld, S. (1994). *Music Grooves: Essays and Dialogues*. University of Chicago Press.
- Keller, H. (1955). *Phrasierung und Artikulation [Phrasing and Articulation: A Contribution to a Rhetoric of Music, with 152 Musical Examples]*. (L. Gerdine, Trans. 1965). Barrie and Rockliff.
- Kozak, M. (2020). *Enacting musical time: The bodily experience of new music*. Oxford University Press. <https://doi.org/10.1093/oso/9780190080204.001.0001>

- Krebs, H. (1999). *Fantasy Pieces: Metrical Dissonance in the Music of Robert Schumann*. Oxford University Press.
- Krottinger A., Loui P. (2021.) Rhythm and groove as cognitive mechanisms of dance intervention in Parkinson's disease. *PLOS ONE*, 16(5): e0249933. <https://doi.org/10.1371/journal.pone.0249933>
- Krumhansl, C. L. (2000). *Rhythm and pitch in music cognition*. *Psychological Bulletin*, 126(1), 159–179.
- Kubik, G. (1979). Angolan Traits in Black Music, Games and Dances of Brazil. A Study of African Cultural Extensions Overseas. *Estudos de Antropologia Cultural*, 10. Lisboa: Junta de Investigações Científicas do Ultramar.
- Kučinskas, D. (ed.) (2021). *Ethnic Piano Rolls in the United States. Between Folk, Foreign and National Music*. Cambridge.
- Kvifte, T. (2004). Description of grooves and syntax/process dialectics. *Studia Musicologica Norvegica*, 30(1), 54–74.
- Large, E.W., Jones, M.R. (1999). Dynamics of Attending: How People Track Time-Varying Events. *Psychological Review*, 106(1) 119–159.
- Lartillot, O. (2003). Discovering pertinent pattern through perceptual heuristics: Why and how, *International Conference on Music Information Retrieval*. Baltimore.
- Lartillot, O., Cereghetti, D. et al. (2013). A Simple, High-Yield Method For Assessing Structural Novelty, *Proc. 3rd Int. Conference on Music and Emotion (ICME3)*. Jyväskylä.
- Lederman, N., Holland, S., Mulholland, P. (2021). A principled approach to the development of drum improvisation skills through interaction with a conversational agent: A design study with professional drummers. *PPIG*.
- Lerch, A., Arthur, C., Pati, A., Gururani, S. (2021). An interdisciplinary review of music performance analysis. *Transactions of the International Society for Music Information Retrieval*, 3(1), 221–245. <https://doi.org/10.5334/tismir.53>
- Lilja, E. (2009). *Theory and Analysis of Classic Heavy Metal Harmony*. (Doctor). IAML Finland.
- Lindsay, K. A. (2006). *Rhythm Analyzer - A Technical Look at Swing Rhythm in Music*. (Thesis for Master of Science in Mathematics and Computer Science). Ashland-Oregon. Not published.
- Lindsay, K. A., and Nordquist, P. R. (2006). A technical look at swing rhythm in music. *Journal of Acoustical Society of America*, 120.
- London, J. (2001). Rhythm. *Grove Music Online*. (Accessed March 7, 2021) <http://www.oxfordmusiconline.com/grovemusic>
- London, J. (2012). *Hearing in Time: Psychological Aspects of Musical Meter*. Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780199744374.001.0001>

- Madison, G. (2006). Experiencing Groove Induced by Music: Consistency and Phenomenology. *Music Perception*, 24(2), 201–208. University of California Press.
- Manaris, B., Hughes, D., Vassilandonakis, Y. (2011). Monterey mirror: combining Markov models, genetic algorithms, and power laws. *IEEE Congress on Evolutionary Computation*, 33–40.
- Mccormick, S. (2018). James Brown and The Invention of Funk Music. *Disc Makers Blog*. [viewed 7 June 2023]. <https://blog.discmakers.com/2018/10/james-brown-and-the-invention-of-funk-music/#:~:text=Although%20%E2%80%9CPapa's%20Got%20a%20Brand,that%20gets%20the%20ball%20rolling>
- McFee, B., Raffel, C., Liang, D., Ellis, D. P., McVicar, M., Battenberg, E., Nieto, O. (2015). librosa: Audio and music signal analysis in Python. *SciPy*.
- Mcguiness, A. (2005). *Microtiming deviations in groove*. (Master). Australian National University.
- McParland, R. (2018). *Myth and Magic in Heavy Metal Music*. McFarland.
- Moelants, D. (1997). A Framework for the Subsymbolic Description of Meter. *Music, gestalt, and computing. Studies in cognitive and systematic musicology*. Ed. M. Leman. Berlin [u.a.]: Springer (Lecture notes in computer science, 1317 : Lecture notes in artificial intelligence), 263–276.
- Moles, A. (1968). Information und Redundanz. *Kunst und Kybernetik*. Ed. H. Ronge. Cologne.
- Moles, A. (1971). *Informationstheorie und ästhetische Wahrnehmung*. Cologne.
- Moore, A. F. (2001). Hard Rock. *Grove Music Online*. (Accessed March 7, 2021) <http://www.oxfordmusiconline.com/grovemusic>
- Moore, S. (2013). *Stanton Moore on John Bohnham's Influences*. <https://drummagazine.com/stanton-moore-on-john-bonhams-influences/>
- Morrison, L. (2021). Rhythm Quantization. Notes on the History of a Technocultural Practice. *The Oxford Handbook of Time in Music*, Eds. M. Doffmann, E. Payne, T. Young. Oxford, 341–365.
- Mounir, M., Karsmakers, P., Waterschoot, T. (2021). Musical note onset detection based on a spectral sparsity measure. *EURASIP Journal on Audio, Speech, and Music Processing*, vol. 2021, 1–17.
- Mukuna, K. W. (1979). *Contribuição bantu na música popular brasileira*. São Paulo: Global.
- Naveda, L., Gouyon, F., Guedes, C., Leman, M. (2011). Microtiming Patterns and Interactions with Musical Properties in Samba Music. *Journal of New Music Research*, 40(3), 225–238, <https://doi.org/10.1080/09298215.2011.603833>
- Nilsen, J. I. (2012). *Kvintoler som grunnleggende underdeling*. (Master). University of Agder, Kristiansand.
- Nilsen, J. I. (2021). *1-2-3-4-5: Pa°sporet av grooven*. (Ph.D). University of Agder, Kristiansand.
- Nketia, J.H.K. (1974). *The music of Africa*. New York: W. W. Norton.

- Novotney, E. D. (1998). *The 3:2 relationship as the Foundation of Timelines in West African Musics*. (Ph.D). University of Illinois, Urbana.
- Oddekalv, K. A. (2022). *What Makes the Shit Dope? The Techniques and Analysis of Rap Flows*. (Ph.D). University of Oslo, Oslo.
- Ohriner, M. (2018). Expressive Timing. *The Oxford handbook of critical concepts in music theory*. Eds. A. Rehding, S. Rings. Oxford University Press.
- Ohriner, M. (2019). Lyric, rhythm, and non-alignment in the second verse of Kendrick Lamar's "Momma". *Music Theory Online*, 25(1).
- Oliver, R.A. (2015). *Rebecoming analogue: groove, breakbeats and sampling*. (Ph.D). University of Hull.
- Ospina Romero, S. (2019). Ghosts in the Machine and Other Tales Around a 'Marvelous Invention'. Player Pianos in Latin America in the Early Twentieth Century. *Journal of the American Musicological Society*, 72(1), 1–42.
- Penel, A., Drake, C. (2004). Timing variations in music production. *Perception & Psychophysics*, 66(4).
- Pfleiderer, M. (2010). Dimensionen der Groove-Erfahrung. Eine empirische Studie. *PopScriptum*, 11. <https://edoc.hu-berlin.de/handle/18452/21062>
- Pfleiderer, M., Frieler, K., Abeßer, J., Zaddach, W.-G., Burkhart, B. (Eds.). (2017). *Inside the Jazzomat: New perspectives for jazz research*. Mainz: Schott Campus. urn:nbn:de:101:1-201711151872
- Polak, R. (2010). Rhythmic Feel as Meter: Non-Isochronous Beat Subdivision in Jembe Music from Mali. *Music Theory Online*, 16(4), 1–26.
- Polak, R. (2022): Non-isochronous Metre in Music from Mali. *The Oxford Handbook of Time in Music*. Eds. M. Doffman, E. Payne, T. Young. Oxford: Oxford University Press, 252–274.
- Polak, R., London, J. (2014). Timing and Meter in Mande Drumming from Mali. *Music Theory Online*, 20(1).
- Polak, R., London, J., Jacoby, N. (2016). Both isochronous and non-isochronous metrical subdivision afford precise and stable ensemble entrainment: A corpus study of malian jembe drumming. *Frontiers in Neuroscience*, 10, 1–11. <https://doi.org/10.3389/fnins.2016.00285>
- Pöppel, E. (1997). A hierarchical model of temporal perception. *Trends in Cognitive Sciences*, 1(2).
- Pressing, J. (2002). Black Atlantic Rhythm: Its Computational and Transcultural Foundations. *Music Perception*, 19(3).
- Pressnitzer, D., Hupé, J. M (2006). Temporal Dynamics of Auditory and Visual Bistability Reveal Common Principles of Perceptual Organization. *Current Biology*, 16.
- Pressnitzer, D., Suied, C., Shamma, S.A. (2011). Auditory Scene Analysis: The Sweet Music of Ambiguity. *frontiers in Human Neuroscience*. Review Article published: 14 Dec.

- Prögler, J. A. (1995). Searching for Swing. Participatory Discrepancies in the Jazz Rhythm Section. *Ethnomusicology*, 39(1), 21–54.
- Prögler, J.A. (1995). Searching for swing: Participatory discrepancies in the jazz rhythm section. *Ethnomusicology*, 39(1), 21–54.
- Rasch, R.A. (1988). Timing and Synchronization in Ensemble Performance. *Generative Process in Music: The Psychology of Performance, Improvisation, and Composition*. Eds. J.A. Sloboda. 70–90. Oxford: Clarendon Press.
- RIAA (The Recording Industry Association of America) (2019). *Gold & Platinum*. (Accessed March 7, 2021), <https://www.riaa.com/gold-platinum/>
- Roads, C. (2001) *Microsound*. MIT, The MIT Press.
https://monoskop.org/images/d/d1/Roads_Curtis_Microsound.pdf
- Roholt, T. C. (2014). *Groove: a phenomenology of rhythmic nuance*. New York: Bloomsbury Academic.
- Rothman, J. (1984). *Rock Drumming with Quintuplets*. J.R.Publications.
- Rouard, S., Massa, F., De´fossez, A. (2023). Hybrid transformers for music source separation. *International Conference on Acoustics, Speech and Signal Processing*. IEEE, 1–5.
- Sandroni, C. (1997). *O feitiço decente – Transformações do samba no Rio de Janeiro (1917-1933)*. (Brazilian version of Ph. D thesis).
- Sasaki, T., Suetomi, D., Nakajima Y. et al. (2002). Time–shrinking, its propagation, and Gestalt principles. *Perception & Psychophysics*, 64(6).
- Scarth, G., Curry, O. (2013). *Daw and Drum Machine Swing*. Online article. July 1, 2013. (Accessed March 7, 2021), <http://www.attackmagazine.com/>
- Schuller, G. (1968). *Early Jazz: Its Roots and Musical Development*. New York: Oxford University Press.
- Seaver, N. (2011). ‘This Is Not a Copy’. Mechanical Fidelity and the Re-Enacting Piano. *differences*, 22(2–3), 54–73.
- Senn, O. & Kilchenmann, L. (2011). The Secret Ingredient: State of affairs and Future Directions in Groove Studies. *Music-Space-Chord-Image: Festschrift for Dorothea Baumann’s 65th Birthday*. Ed. A. Baldassarre. Bern: Peter Lang.
- Senn, O., Bechtold, T., Rose, D., Câmara, G. S., Düvel, N., Jerjen, R., Kilchenmann, L., Hoesl, F., Baldassarre, A., Alessandri, E. (2020). Experience of Groove Questionnaire: Instrument Development and Initial Validation. *Music Perception*, 38(1), 46–65.
- Silva, J. (2021). Mechanical Instruments and Everyday Life. The Player Piano in Portugal. *Popular Music*, 40(1), 58–74.
- Sioros, G. (2023). Polyrhythmic modeling of non-isochronous and microtiming patterns. *Proceedings of the 24th International Society for Music Information Retrieval Conference*. International Society for Music Information Retrieval Conference, Milan, Italy.

- Sioros, G., Madison, G., Cocharro, D., Danielsen, A., & Gouyon, F. (2022). Syncopation and Groove in Polyphonic Music: Patterns Matter. *Music Perception*, 39(5), 503–531. <https://doi.org/10.1525/mp.2022.39.5.503>
- Smalley, D. (1997). Spectromorphology: Explaining sound-shapes. *Organised Sound*, 2(2), 107–126. <https://doi.org/10.1017/S1355771897009059>
- Snelson, J. (2001). Shuffle. *Grove Music Online*. (Accessed March 7, 2021), <http://www.oxfordmusiconline.com/grovemusic>
- Spitzer, M. (2008). *Musik im Kopf*. Schattauer Verlag,
- Spring, Howard. (2014). Swing. *Grove Music Online*. (Accessed March 7, 2021), <http://www.oxfordmusiconline.com/grovemusic>
- Stewart, A. (2000). Funky drummer. New Orleans, James Brown, and the rhythmic transformation of American popular music. *Popular Music*, 19(3), 293–318.
- Stobart, H., Cross, I. (2000). The Andean Anacrusis? rhythmic structure and perception in Easter songs of Northern Potosí, Bolivia. *British Journal of Ethnomusicology*, 9(2), 63–94.
- Stover, C. D. (2009). *A theory of flexible rhythmic spaces for diasporic African music* (doi/10.7560/LAMR37202) [Ph.D, University of Washington]. <https://doi.org//10.7560/LAMR37202>
- Suisman, D. (2009). *Selling Sounds. The Commercial Revolution in American Music*. Cambridge.
- Tagg, P. (2012). *Music's Meanings: A Modern Musicology for Non-Musos*. New York & Huddersfield: The Mass Media Music Scholar's Press.
- ten Hoopen, G., Sasaki T., Nakajima Y., et al. (2006). Time-Shrinking And Categorical Temporal Ratio Perception: Evidence For A 1:1 Temporal Category. *Music Perception*, 24(1).
- Thiemel, M. (2001). "Dynamics". *Grove Music Online*. (Accessed March 7, 2021), <http://www.oxfordmusiconline.com/grovemusic>
- Thoresen, L. (2001). Spectromorphological analysis of sound objects: An adaptation of Pierre Schaeffer's typomorphology. *EMS Proceedings*.
- Tichko P., Page N., Kim J.C., Large E.W., Loui P. (2022). Neural Entrainment to Musical Pulse in Naturalistic Music Is Preserved in Aging: Implications for Music-Based Interventions. *Brain Sciences*, 12(12), 1676. <https://doi.org/10.3390/brainsci12121676>
- Todd, N. P. (1994). Meter, Grouping and the Uncertainty Principle: A Unified Theory of Meter Perception. *European Society for the Cognitive Sciences of Music, Proc. of the 3rd I.C.M.P.C.*
- Toussaint, G. T. (2005). The Euclidean algorithm generates traditional musical rhythms. *Proceedings of BRIDGES: Mathematical Connections in Art, Music and Science*, 47–56.
- Toussaint, G. T. (2013). *The Geometry of Musical Rhythm: What Makes a 'Good' Rhythm Good?* Chapman and Hall/CRC.

- Vatin, X. (2005). *Rites et musiques de possession à Bahia*. Recherches Amériques latines, L'Harmattan.
- Waadeland, C.H. (2006). Strategies in Empirical Studies of Swing Groove. *Studia Musicologica Norvegica*, 32 (Dec.), 169–191. Universitetsforlaget.
- Wahlström, K. (2015). The Groove of Hard Rock and Heavy Metal. *Modern Heavy Metal: Markets, Practices and Cultures*. Eds. T. Karjalainen, K. Kärki. Conference paper. Aalto University.
- Wahlström, K. (2022). *Student-Centered Musical Expertise in Popular Music Pedagogy and Hard Rock Groove – a Design-Based and Psychodynamic Approach*. (Doctor). University of Helsinki.
- Washburn, C, and Fabbri, F. (2003). Riff. *Continuum Encyclopedia of Popular Music of the World. Volume II: Performance and Production*. Eds. J. Shepherd, D. Horn, D. Laing, P. Oliver, P. Wicke. 529–593. London: Continuum.
- Waterman, R. A. (1952). African Influence on the Music of the Americas. *Acculturation in the Americas: Proceedings and Selected Papers of the Twenty-Ninth International Congress of Americanists*. University of Chicago Press, 207–218.
- Weizsäcker, E.U. von (1974). Erstmaligkeit und Bestätigung als Komponenten der pragmatischen Information. *Offene Systeme I*. Ed. E.U. von Weizsäcker. Stuttgart.
- Whitall, G. (2013). Groove. *Grove Music Online*. (Accessed March 7, 2021), <http://www.oxfordmusiconline.com/grovemusic>
- Widmer, G., Goebel, W. (2004). Computational Models of Expressive Music Performance: The State of the Art. *Journal of New Music research*, 33(3).
- Will, U. (2011). Prospects for a Reorientation in Cognitive Ethnomusicology. *Selbstreflexion in der Musik/Wissenschaft. Referate des Kölner Symposions 2007: im Gedenken an Rüdiger Schumacher*. Eds. W. Steinbeck, R. Schumacher. Kassel: Gustav Bosse Verlag (Kölner Beiträge zur Musikwissenschaft, Bd. 16), 193–211.
- Wittmann, M. & Pöppel, E. (1999/2000). Temporal Mechanisms of the Brain as Fundamentals of Communication – With Special Reference to Music Perception and Performance. (Abstract). *Musicae Scientiae*, 3.
- Wright M., Berdahl E. (2006). Towards Machine Learning of Expressive Microtiming in Brazilian Drumming. *Proceedings of the 2006 International Computer Music Conference (ICMC)*. 572-575.
- Wright, M., (2008). <http://cnmat.berkeley.edu/~matt/publications.html>
- Yeston, M. (1976). *The Stratification of Musical Rhythm*. Yale University Press.
- Zeiner-Henriksen, H. T. (2010). *The "PoumTchak" Pattern*. (Ph.D). University of Oslo, Oslo.
- Zera, J., Green, D. M. (1993). Detecting temporal asynchrony with asynchronous standards. *Journal of the Acoustical Society of America*. <https://doi.org/10.1121/1.406816>

Zoeller, M, (2017). *Mental quantum features. Rhythmuswahrnehmung und Psychoakustik – Vorschlag für ein Forschungsprojekt*. Berlin

Zoeller, M. (2013). *Patentschrift, Bezeichnung: Vorrichtung und Verfahren zur Modulation von digitalen Audiosignalen*. DPMA, D. 10 2010 061 367. München.