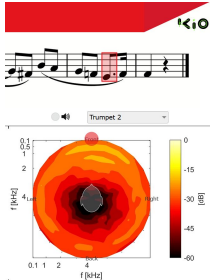


NEWSLETTER 2025

RESEARCH ACTIVITIES

International project “Analysis, Creation, and Teaching Orchestration – ACTOR”

The ACTOR Partnership proposes to enhance attention to timbre and orchestration by bringing its musical use to the forefront of scholarship, practice, and public awareness with world-class artists, humanists, and scientists. This partnership links North American and European orchestration practice and pedagogy, stimulates the development of new creativity-enhancing digital tools for learning, creating, and studying orchestration practice and sensitizes young audiences and students to the wonders and complexities of high-quality music.



Current work at ETI includes research on blending of orchestral sounds and the interaction between the audience, musicians, and performance spaces. A new tool, the Detmold Musical Instrument Timbre Explorer (DmiTE), offers a systematic, audio-visual exploration of musical sound radiation.

Recording in the Digital Performance Room with Tom Beghin & analysis with DmiTE

More information at: <https://www.actorproject.org>



Guitar-building Workshop



Students from the M.Sc. program "Music Acoustics" learned to build their own electric guitar or bass in a workshop offered by the architect Alvaro Balderrama, M.Eng. from TH OWL

wiki.audio – Open Knowledge for Audio and Acoustics

wiki.audio is a free platform for acoustics and audio engineering. Initiated by the VDT and inspired by Eberhard Sengpiel, it provides expert-reviewed content developed under clear editorial standards in cooperation with universities and professional associations. Since 2021, wiki.audio has expanded internationally with multilingual contributions. Students, professionals, and enthusiasts are welcome to join and help build a reliable reference for the global audio community.

Supervisor: Prof. Dr.-Ing. Malte Kob
Research assistant: Margareta Urbaniak, M.Sc.

Join the project: apply@wiki.audio

WikiAUDIO



NEWSLETTER 2025

RECENT PUBLICATIONS

- Jithin Thilakan, Otavio Colella Gomes, Eckard Mommertz & Malte Kob, "Pilot study on the perceptual quality of close-mic recordings in auralization of a string ensemble", *Proceedings of Meetings on Acoustics* 49, 2022
- Stefan Sentpali, Malte Kob, Johanna Bronek, Stephan Pitsch, Ennes Sarradj, Johannes Weinzierl, Sebastian Greisinger, Maximilian Miltenberger & Monika Gatt, "Ausbildung in der Akustik", *Akustik Journal* 02/22, 48, 2022
- Malte Kob, Dustin Eddy & Kim Efert, „Anwendung digitaler Techniken für die Übertragung und Vermittlung von Musik“, in: „Lehre unter Strom. Digitale Perspektiven für Lehrende an Musikhochschulen“, Karolin Schmitt-Weidmann (Hrsg.), wolke verlag Hofheim, 83-94, 2023
- Lucas Heidemann, Dorothea Lincke, Karin Loh, Nils Meyer-Kahlen, Benjamin Müller, Jan Selzer & Jithin Thilakan, "Promovieren in der Akustik", *Akustik Journal* 5, 7-19, 2023
- Timo Grothe, Johannes Baumgart & Cornelis J. Nederveen, "A transfer matrix for the input impedance of weakly tapered, dissipative cones as of wind instruments (L)", *Journal of the Acoustical Society of America* 154(1), 463–466, 2023
- Jithin Thilakan, Balamurali B. T., Sarun P. M. & Jer-Ming Chen, "Vocal Tract Resonance Detection at Low Frequencies: Improving Physical and Transducer Configurations", *Sensors* 23, 939, 2023
- Augustin Ernout & Timo Grothe, "Experimental study of the effects of the long chimney of a closed tonehole on the sound of a bassoon", *The Journal of the Acoustical Society of America* 153, 1229-1240, 2023
- Kim K. Blaschke, Susanne Schwickert & Malte Kob, „Schallabsorptionseigenschaften von Lehmoberflächen“, *Bauphysik* 45 (6), 289-296, 2023
- Jithin Thilakan, Balu T. Balamurali, Jer Ming Chen & Malte Kob, „Classification of the perceptual impression of source-level blending between violins in a joint performance“, *Acta Acustica* 7(62), 2023, DOI: 10.1051/aacus/2023050
- Jithin Thilakan, "Acoustic and perceptual aspects of sound sources in the formation of ensemble sound", Dissertation, Detmold University of Music, 2024, DOI: 10.48474/200
- Malte Kob, „Einfluss der Raumakustik auf das Musizieren“, in: "Raumakustik. Wie man Räume hörgerecht besser gestaltet", Fabio Kaiser, Francesca Tonetti (Hrsg.), Carl Hanser, 2024, ISBN: 978-3446480841
- Malte Kob & Tobias Andreas Weege, „Wie sind frühe Aufnahmen zu interpretieren?“, in: "Computergestützte Archivierung von Tonträgern“, Rolf Baader (Hrsg.), Springer Vieweg, 363-379, 2024, DOI: 10.1007/978-3-031-49640-0_16
- Jithin Thilakan, Balamurali B. T., Otavio Colella Gomes, Jer-Ming Chen & Malte Kob, "Exploring the role of room acoustic environments in the perception of musical blending“, *Journal of the Acoustical Society of America* 157(2), 738–754, 2025, DOI: 10.1121/10.0035563
- Boris B. Bolles, Tobias A. Weege & Malte Kob, "Analysis and modeling of mechano-acoustical recording and playback devices and their interaction with the singing voice", in: "Technologien des Singens", Rebecca Grotjahn, Malte Kob, Karin Martensen (Hrsg.), Allitera, 2025, ISBN: 978-3962335199
- Malte Kob, Jithin Thilakan & Timo Grothe, "Comparison of simulated and measured wind instrument directivities using a point source approach", *Proceedings of Meetings on Acoustics*, accepted

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