HEAD-Genuit-Stiftung

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Title:

Multidomain and context-dependent spatial approaches to acoustic well-being

Author:

Klaus Genuit

Abstract:

In the 1980s, binaural measurement technology such as an artificial head microphone was introduced to enable precise, reproducible and calibrated acoustic documentation of noise events in order to be able to make an auditory assessment after modifications or when comparing different recordings. After auditorily correct recordings of sound events were made, the desire arose to analyze the subjectively perceived auditory sound quality, including psychoacoustics, just like the human ear. With the help of psychoacoustic parameters, the auditory impression of sound events can be viewed in a more differentiated way than with the A-weighted sound pressure level alone. The relevant psychoacoustic parameters have now been standardized. The Soundscape standard ISO 12913 was the first one to normatively require binaural measurement technology and recommended psychoacoustic analysis. Based on this development, the new research project MOSAIC "Multi-dOmain and context-dependent Spatial approaches to AcoustIC well-being" was founded. The overarching goal of the research project is to promote and further develop the construct of "acoustic well-being" across disciplines, domains and scales with a cross-domain and context-dependent spatial approach. The methodological focus is on the further development of the assessment of multiple acoustic well-being variables in relation to physiological, psychological and behavioral responses.