

184th Meeting of the Acoustical Society of America

8 – 12 May 2023

Place:

Chicago, Illinois/USA

Title:

Applications of the Psychoacoustic Tonality Method

Authors:

Roland Sottek, Thiago Lobato

Abstract:

Psychoacoustic tonality calculated using the Sottek Hearing Model is an established method, standardized in ECMA 418-2 that can be used in various product assessments to identify and quantify prominent tonal components.

The perception and evaluation of sound events containing such components has become increasingly important, e.g., in the field of vehicle acoustics to evaluate tonality due to alternative powertrains, or in information technology (IT) equipment due to hard disk noise. In addition, many products contain fans, e.g., IT equipment, household appliances, and air conditioning systems in buildings. Noticeable noise can emanate from these fans.

However, there is no central publication describing most applications of the method, so its capabilities are not widely known. The goal of this article is to fill this gap by presenting the method clearly and concisely and highlighting its various applications in industry. By providing a comprehensive overview of the method and its applications, we aim to help practitioners improve the quality of their audio designs by making them aware of the benefits of psychoacoustic tonality.

Find more event abstracts in our [>> abstracts archive <<](#)