ACOUSTICS2008/2169 Updates on Prominent Discrete Tone Procedures in ISO 7779, ECMA 74, and ANSI S1.13

Robert Hellweg 13 Pine Tree Road, Wellesley, MA 02482, USA

There are two alternative procedures for determining if a tone is prominent, i.e. a "prominent discrete tone" in ISO 7779, ECMA 74 and ANSI S1.13: the Tone to Noise Ratio (TNR) method and the Prominence Ratio (PR) method. Both of these procedures have been used by the computer industry for more than a decade. Recent revisions to these procedures have refined the calculation of the critical bandwidth and modified the both procedures for low level tones. This paper describes these changes and the rationale behind them. Examples are presented that demonstrate the features of each procedure. The paper presents an overview on the applicability and limitations of each procedure.