

Assessment of Voice using Acoustic Analysis

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Abstract

Acoustic analysis of voice is potentially useful for objective assessment and characterization of voice disorders. However, before extracting acoustic measures of voice it is firstly pertinent to ask; what do we mean by voice? In describing *voice*, the perceptual impression formed by the listener or the physical characteristics of the production mechanism may be of primary interest. With this in mind specific correlations with perception and source production are worthy of attention. The voiced speech signal recorded using a microphone comprises a glottal source signal, which has been resonated and radiated. Hence this signal is only indirectly related to the underlying source production mechanism. Furthermore it is only indirectly related to the perception of voice quality because auditory processing is not considered. Indices commonly extracted from the acoustic speech waveform include HNR, jitter and shimmer. This presentation inquires into how these measures relate to physical and perceptual characterizations and into how progress on these and related issues can be advanced through COST 2103.