

Spatial Audio Player Using Musical Genre Classification

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Abstract : In this paper, we propose a smart music player that combines the musical genre classification and the spatial audio processing. The musical genre is classified based on content analysis of the musical segment detected from the audio stream. In parallel with the classification, the spatial audio quality is achieved by adding an artificial reverberation in a virtual acoustic space to the input mono sound. Thereafter, the spatial sound is boosted with the given frequency gains based on the musical genre when played back. Experiments measured the accuracy of detecting the musical segment from the audio stream and its musical genre classification. A listening test was performed based on the virtual acoustic space based spatial audio processing.

Keywords : automatic equalization, genre classification, music segment detection, spatial audio processing

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