

Fusion of Static and Transitional Information of Cepstral and Spectral Features for Music Genre Classification

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Abstract

In this paper, an automatic music genre classification approach which integrates the features derived from static and transitional information of cepstral (MFCC) and spectral (OSC) features will be proposed. MFCC and OSC capture the characteristics of one audio frame. Therefore, the transitional information, including delta-MFCC, delta-OSC, delta-delta-MFCC, and delta-delta-OSC, are then extracted and combined with MFCC and OSC to improve the classification accuracy. Two information fusion techniques, including feature level fusion and decision level fusion, are developed to combine the extracted feature vectors. Experiments conducted on the music database employed in the ISMIR2004 Audio Description Contest have shown that the proposed approach can achieve a classification accuracy of 84.23%, which is better than the winner of the ISMIR2004 Music Genre Classification Contest.

Keyword :