Generalizations of the subject-independent feature set for music-induced emotion recognition

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Electroencephalogram (EEG)-based emotion recognition has been an intensely growing field. Yet, how to achieve acceptable accuracy on a practical system with as fewer electrodes as possible is less concerned. This study evaluates a set of subject-independent features, based on differential power asymmetry of symmetric electrode pairs [1], with emphasis on its applicability to subject variability in music-induced emotion classification problem. Results of this study have evidently validated the feasibility of using subject-independent EEG features to classify four emotional states with acceptable accuracy in second-scale temporal resolution. These features could be generalized across subjects to detect emotion induced by music excerpts not limited to the music database that was used to derive the emotion-specific features