Separation of singing voice from music accompaniment for monaural recordings.

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**Abstract**: Separating singing voice from music accompaniment is very useful in many applications, such as lyrics recognition and alignment, singer identification, and music information retrieval. Although speech separation has been extensively studied for decades, singing voice separation has been little investigated. We propose a system to separate singing
Separation of singing voice from music accompaniment for monaural recordings. Our system consists of three stages. The singing voice detection stage partitions and classifies an input into vocal and non-vocal portions. For vocal portions, the predominant pitch detection stage detects the pitch of the singing voice and then the separation stage uses the detected pitch to group the time-frequency segments of the singing voice. Quantitative results show that the system performs the separation task successfully.

Descriptors: AUDITORY PERCEPTION, PSYCHOACOUSTICS, AUDITORY SIGNALS

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