## A Novel Method for Silence Removal in Sounds Produced by Percussive Instruments

Authors : B. Kishore Kumar, Rakesh Pogula, T. Kishore Kumar

**Abstract :** The steepness of an audio signal which is produced by the musical instruments, specifically percussive instruments is the perception of how high tone or low tone which can be considered as a frequency closely related to the fundamental frequency. This paper presents a novel method for silence removal and segmentation of music signals produced by the percussive instruments and the performance of proposed method is studied with the help of MATLAB simulations. This method is based on two simple features, namely the signal energy and the spectral centroid. As long as the feature sequences are extracted, a simple thresholding criterion is applied in order to remove the silence areas in the sound signal. The simulations were carried on various instruments like drum, flute and guitar and results of the proposed method were analyzed.

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Keywords : percussive instruments, spectral energy, spectral centroid, silence removal

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