Automatic Segmentation of the Clean Speech Signal

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Abstract : Speech Segmentation is the measure of the change point detection for partitioning an input speech signal into regions each of which accords to only one speaker. In this paper, we apply two features based on multi-scale product (MP) of the clean speech, namely the spectral centroid of MP, and the zero crossings rate of MP. We focus on multi-scale product analysis as an important tool for segmentation extraction. The multi-scale product is based on making the product of the speech wavelet transform coefficients at three successive dyadic scales. We have evaluated our method on the Keele database. Experimental results show the effectiveness of our method presenting a good performance. It shows that the two simple features can find word boundaries, and extracted the segments of the clean speech.

Keywords : multiscale product, spectral centroid, speech segmentation, zero crossings rate
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