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OPTIMAL WAVELET SELECTION FOR ANALYZING SANSKRIT DEVINE SOUND "OM"

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Abstract

Before some decades, Yogis and meditating professional affirmed that chanting "OM" improves our concentration, gives peace and steadiness to our mind, reduces the mental stress and clears all worldly thoughts. Although, it's required to verify importance of mantra chanting systematically, no schemes have demonstrated yet. In order to confirm the significance of OM chanting, time-frequency analysis is performed on the OM chant signal. Since speech is nonstationary, we have utilized Discrete Wavelet Transforms (DWT) instead of Fourier transform for the Time-frequency analysis. A suitable criterion used for selecting optimal wavelets, is the energy retained in the first N/2 coefficients. Based on this criterion alone the 24 wavelets have been tested in order to select optimal wavelet for analyzing Devine sound "OM". Results of energy retained in the first N/2 coefficients using 24 wavelets were computed and presented in this paper. The objective is to efficiently analyze joint time-frequency representation of acoustic generated by "OM" to understand why it improves our concentration.