



# International Journal of Biomedical Imaging

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## A Wavelet Packets Approach to Electrocardiograph Baseline Drift Cancellation

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### Abstract

Baseline wander elimination is considered a classical problem. In electrocardiography (ECG) signals, baseline drift can influence the accurate diagnosis of heart disease such as ischemia and arrhythmia. We present a wavelet-transform- (WT-) based search algorithm using the energy of the signal in different scales to isolate baseline wander from the ECG signal. The algorithm computes wavelet packet coefficients and then in each scale the energy of the signal is calculated. Comparison is made and the branch of the wavelet binary tree corresponding to higher energy wavelet spaces is chosen. This algorithm is tested using the data record from MIT/BIH database and excellent results are obtained.