

Abstract

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analysis of non-stationary electrocardiogram signals using iterative wavelet decomposition

ecg signal is acting an important role in the principal diagnosis, prognosis survival analysis of heart diseases. this paper will present a model for integrating integer packet wavelet transform with iterative signal subspace separation denoising in the analysis of the ecg. a proposed model will be introduced for ecg feature extraction detection of small variations deformation in ecg signals. a model will be presented for the separation of a desired signal subspace of arbitrary dimensions from noisy, possibly degenerate, multichannel mixtures of signal noise. an important advantage of this method is that it can separate the subspaces without losing the dimensions main characteristics of the signals, which is an important issue for deformation analysis of noisy ecg signals. experimental results show a robust ability of detecting variations analysis of different ecg signals.