Pan Tomkins Real time QRS complex –

Band Pass filter –

Low pass and high pass to remove base line drift –

Noise which arises from muscle noise and base line waner

Says desirable passband to maximise QRS is 5 – 15Hz

But [2] says other wise.

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[1]

J. Pan and W. J. Tompkins, "A Real-Time QRS Detection Algorithm," in IEEE Transactions on Biomedical Engineering, vol. BME-32, no. 3, pp. 230-236, March 1985.  
doi: 10.1109/TBME.1985.325532  
keywords: {Band pass filters;Computer displays;Databases;Detection algorithms;Detectors;Digital filters;Electrocardiography;Filtering;Interference;Noise reduction;Analog-Digital Conversion;Electrocardiography;Evaluation Studies as Topic;Filtration;Humans;Mathematics},  
URL: <http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4122029&isnumber=4122020>

[2]

N. Debbabi, S. E. Asmi and H. Arfa, "Correction of ECG baseline wander application to the Pan & Tompkins QRS detection algorithm," 2010 5th International Symposium On I/V Communications and Mobile Network, Rabat, 2010, pp. 1-4.  
doi: 10.1109/ISVC.2010.5654714  
Abstract: The ECG signal is pseudo-periodic, since the amplitude of every wave varies from a cycle to the other one during the same recording. The variation of the amplitude is related to physiological and pathological conditions of the patient. But when recording, the ECG signal is contaminated by various kinds of noise such as the patient's contraction muscles, respiration, 60 Hz interference, place of recording (ambulatory recording), which can change the positions of electrodes which record the signal. All these factors affect the signal and disrupt it, this gives a signal whose baseline is wandering. In order to obtain the best extraction of the QRS complex of an ECG signal, we will need to correct this baseline and to make it horizontal. In this paper, we will use this correction in order to use a fixed thresholding in the application of the Pan & Tompkins algorithm instead of using an adaptatif thresholding, this method reduces the processing time and complexity for the concerned algorithm.  
keywords: {bioelectric phenomena;electrocardiography;medical signal processing;signal denoising;ECG baseline wander;ECG signal;Pan & Tompkins QRS detection algorithm;adaptive thresholding;ambulatory recording;fixed thresholding;interference;patient muscle contraction;respiration;Complexity theory;Databases;Detection algorithms;Electrocardiography;Electronic mail;Muscles;Noise;ECG signal;QRS complexes;baseline;median filter},  
URL: <http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5654714&isnumber=5654712>