

HIGH RESOLUTION ELECTROCARDIOGRAPHY MEASUREMENT AND ANALYSIS

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Abstract

High resolution electrocardiography offers relatively new, non-invasive and non-expensive method for examination of heart electrical activity, especially for risk stratification of cardiac arrhythmias. In the paper measurement requirements and method of ECG signal analysis in time and frequency domain are discussed. The review of clinical study performed during last years is presented and most valuable results are compared and discussed. It was shown that high-resolution ECG is useful for some clinical application but it still have to be developed for more accurate and reliable use. Finally, the most promising trends in method development are discussed and new advanced method for data processing and analysis are specified.

Keywords: high resolution electrocardiography, signal acquisition, time domain analysis, frequency analysis, clinical evaluation