ANALYSIS OF RHYTHMS IN EXPERIMENTAL SIGNALS

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Abstract. We compare algorithms designed to extract quasi-periodic signal components and estimate the amplitude, phase, stability, and other characteristics of the rhythm in a sliding window in the presence of data gaps. Each algorithm relies on its own rhythm model, therefore, depending on the research objectives, it is necessary to use different algorithms. The described set of algorithms is implemented in a software package WinABD, which includes a time series database management system, a powerful research complex and an interactive data visualization environment.

Keywords: rhythm, hidden periodicity, parameter estimation, algorithm, WinABD.