

Periodograms of superimposed epochs in search for hidden rhythms in experimental data time series

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Abstract. Three procedures for calculation of the periodograms of superimposed epochs aimed at revealing and investigating periodical components with nonharmonic signal form are described. Examples of the periodograms and Fourier spectra calculated for model time series with known properties are presented. Comparative efficiency of the procedures for studies of signals of various forms is discussed. The analysis results of some experimental data will be given in a different paper in an issue of the journal.

Keywords: hidden periodicity, periodogram, Fourier spectrum, comparative efficiency, time series model.