THEORETICAL PREDICTION OF PERIODICALLY CORRELATED SEQUENCES

Andrzej Makagon

Abstract: The paper deals with a spectral analysis and prediction of periodically correlated (PC) sequences. In particular, a moving average representation of a predictor is obtained and its coefficients are described in the language of outer factors of spectral line densities of the sequence. A comprehensive and self-contained overview of the spectral theory of PC sequences is included. The developed technique is used to compute the spectrum and an optimal moving average representation of a PC solution to a PARMA system of equations.


Key words and phrases: Periodically Correlated Sequence, Prediction, PARMA System, Stationary Sequence.