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Parameter estimation for first-order superdiagonal bilinear time series. An algorithm for maximum likelihood procedure.

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Thanks to their possible application to a wide variety of fields including signal, demography, economics..., the bilinear time series models have acquired a great importance in the statistical literature. This paper deals with the design of a new algorithm for estimating the parameters of a particular bilinear time series model. This iterative algorithm is based on maximum likelihood method and Kalman filter algorithm. To demonstrate the efficiency of our algorithm, series of simulations were performed. (orig.)

Classification: K95
Keywords: first-order superdiagonal bilinear time series model; maximum likelihood; Kalman filter