

Identification of Classes of Bilinear Time Series Models

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Abstract : In this paper, two classes of bilinear time series model are obtained under certain conditions from the general bilinear autoregressive moving average model. Bilinear Autoregressive (BAR) and Bilinear Moving Average (BMA) Models have been identified. From the general bilinear model, BAR and BMA models have been proved to exist for $q = Q = 0, \Rightarrow j = 0$, and $p = P = 0, \Rightarrow i = 0$ respectively. These models are found useful in modelling most of the economic and financial data.

Keywords : autoregressive model, bilinear autoregressive model, bilinear moving average model, moving average model

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