

REGION OF COMPARISON FOR THE SECOND ORDER MOVING AVERAGE AND PURE DIAGONAL BILINEAR PROCESSES

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ABSTRACT

The covariance structure among other properties of the pure diagonal bilinear time series process of order two is derived and compared with that of the linear moving average process of order two. Also obtained are the extrema of the autocorrelation functions of the two processes for the purpose of distinguishing between the competing models. The well known similarities in the covariance structures of pure diagonal bilinear model of order two and moving average process of order two is found to exist for certain intervals of autocorrelation coefficients of the models. Comparison of the models must be done at this common intervals.

KEYWORDS: Covariance Structures, Pure Diagonal Bilinear Time Series Model, Linear Moving Average Process, Extrema of Autocorrelation Coefficients

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