



The University of Chicago
Department of Statistics
Master's Seminar

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Test of Correlations in Time Series

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ABSTRACT

Testing the adequacy of a time series model plays an important role in time series modeling. “An asymptotic theory for sample covariances of Bernoulli shifts” presents us with the asymptotic theory for sample covariances of random processes. Based on the asymptotic theory, this paper proposes a new test method for the diagnostic checking of the linear models. Consideration is given to the comparison of its empirical significance level and empirical power with the well-known Ljung Box test. Additionally, this paper gives an extension of the new test method to the testing of conditional heteroscedasticity, and compares it with the McLeod & Li test.