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NORMALIZING TRANSFORMATIONS OF SOME STATISTICS OF GAUSSIAN ARMA PROCESSES*

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Abstract. In this paper, the authors investigate Edgeworth type expansions of certain transformations of some statistics of Gaussian ARMA processes. They also investigate transformations which will make the second order part of the Edgeworth expansions vanish. Some numerical studies are made and they show that the above transformations give better approximations than the usual approximation.

Key words and phrases: Edgeworth expansion, Fisher's z-transformation, Gaussian ARMA process, maximum likelihood estimator, periodogram, quasi-maximum likelihood estimator, spectral density.