ON PC SOLUTIONS OF PARMA\((p, q)\) MODELS

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Abstract: This note is concerned with the existence of periodically correlated solutions for the PARMA\((p, q)\) system

\[ x_n = \phi_1^n x_{n-1} + \phi_2^n x_{n-2} + \ldots \\
+ \phi_p^n x_{n-p} + \xi_n + \theta_1^n \xi_{n-1} \ldots + \theta_q^n \xi_{n-q}, \quad n \in \mathbb{Z}, \]

where \(\xi_n\) is a white noise and the varying coefficients \(\phi_i^n\) and \(\theta_i^n\) are periodic in \(n\) with period \(T\). Conditions which ensure the existence of periodically correlated solutions for such systems are obtained.

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