

## Application of Generalized Space-Time Autoregressive Model on GDP Data in West European Countries

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<b>Abstract</b>	<p>This paper provides an application of generalized space-time autoregressive (GSTAR) model on GDP data in West European countries. Preliminary model is identified by space-time ACF and space-time PACF of the sample, and model parameters are estimated using the least square method. The forecast performance is evaluated using the mean of squared forecast errors (MSFEs) based on the last ten actual data. It is found that the preliminary model is GSTAR (2; 1,1). As a comparison, the estimation and the forecast performance are also applied to the GSTAR (1;1) model which has fewer parameter. The results showed that the ASFE of GSTAR (2; 1,1) is smaller than that of the order (1; 1). However, the t-test value shows that the performance is significantly indifferent. Thus, due to the parsimony principle, the GSTAR (1; 1) model might be considered as a forecasting model.</p>
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