

BOX & JENKINS METHODOLOGY TO FORECASTING OF AVERAGE MONTHLY TEMPERATURE OF BAURU CITY (SP)

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- *ABSTRACT: In this paper was applied the Box & Jenkins methodology to obtain a statistical model which allowed forecasting the future values of monthly average temperature of Bauru city in São Paulo state. The data set utilized include information of twelve years of average temperature (January 2001 to December 2012). By the Akaike Information Criterion (AIC) we selected 6 SARIMA models and the choice of best model occurred with indicator of Mean Square Error (MSE), calculated by the quadratic sum of difference between the real values and the forecasting values obtained for the temperature values of monthly of 2013. Furthermore, we analyzed the statistical significance of model coefficients and residuals white noise. The model chosen was the SARIMA $(0,0,1)_x(2,1,1)_{12}$, due the accurate forecasts and satisfactory statistical results.*
- *Key words: Statistical; modeling; seasonality; SARIMA.*

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