



## **Application of SVR models to forecast the volatility of the exchange rates**

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### **Abstract:**

The Support Vector Regression model is considered as one of the most important machine learning method of regression. It deals with high-dimensional and/or incomplete data and often demonstrate performances superior to other techniques including Neural Networks. It is designed to have a good power of generalization and an overall stable behavior, implying a good out-of-sample performance. In the paper we propose a methodology for dynamic modelling and forecasting of covariance matrices based on Support Vector Regression. We analyse exchange rates from the Forex market and show that the variance and covariance forecasts formulated with the proposed approach are more accurate, than the forecasts from standard multivariate GARCH models.

**Keywords:** Support Vector Regression, exchange rates, variance forecasting, high and low prices.