

## عنوان مقاله:

A Particle Swarm Optimization Algorithm for Forecasting Based on Time Variant fuzzy Time Series

## محل انتشار:

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## خلاصه مقاله:

Fuzzy time series have been developed during the last decade to improve the forecast accuracy. Many algorithms have been applied in this approach of forecasting such as high order time invariant fuzzy time series. In this paper, we present a hybrid algorithm to deal with the forecasting problem based on time variant fuzzy time series and particle swarm optimization algorithm, as a highly efficient and a new evolutionary computation technique inspired by birds' flight and communication behaviors. The proposed algorithm determines the length of each interval in the universe of discourse and degree of membership values, simultaneously. Two numerical data sets are selected to illustrate the proposed method and compare the forecasting accuracy with four fuzzy time series methods. The results indicate that the proposed algorithm satisfactorily competes well with similar approaches.

## کلمات کلیدی:

Forecasting, Fuzzy Time Series, Time Variant, Particle Swarm Optimization

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