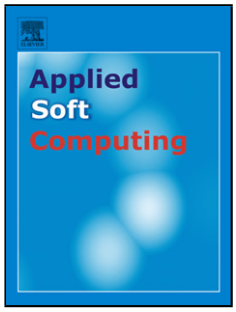


Title: A novel high-order weighted fuzzy time series model and its application in nonlinear time series prediction

Authors: Ping Jiang, Qingli Dong, Peizhi Li

PII: S1568-4946(17)30058-3
DOI: http://dx.doi.org/doi:10.1016/j.asoc.2017.01.043
Reference: ASOC 4037

To appear in: *Applied Soft Computing*

Received date: 13-9-2016
Revised date: 5-1-2017
Accepted date: 22-1-2017

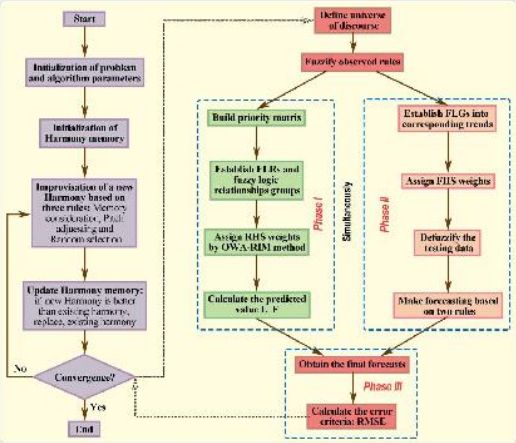
Please cite this article as: Ping Jiang, Qingli Dong, Peizhi Li, A novel high-order weighted fuzzy time series model and its application in nonlinear time series prediction, Applied Soft Computing Journal http://dx.doi.org/10.1016/j.asoc.2017.01.043

A novel high-order weighted fuzzy time series model and its application in nonlinear time series prediction

Ping Jiang, Qingli Dong *, Peizhi Li

School of Statistics, Dongbei University of Finance and Economics, Dalian 116025, China

* Corresponding author.
E-mail address: isaacdon525@gmail.com (Q. Dong).



Highlights

- A novel high-order weighted fuzzy time series forecasting model is developed.
- HS algorithm are employed to optimize the division of the universe of discourse.
- RIM quantifiers are employed to obtain the weights of ordered weighted aggregation.
- Weights of RHS of FLGs are used to compensate the presence of bias in prediction.
- Simulation studies in real world demonstrate the superiority of the proposed