Abstract

Modeling through back-propagation neural network to identify internal dynamics of chaotic motion during the prediction is a challenging task still today. While huge number of contributions is found in the literature. However, real applications of it are rarely visible. Two basic shortcomings have been observed. First optimization of its parameters is an effort and second reaching global minima during training period is a temporal timidity. Often these are impractical to achieve. In this study modeling of rainfall data time series (chaos) through back-propagation network is prepared. The parameters are optimized in this application and also obtained global minima. It is found the model reached in its global minima at 900000 epochs. At this point model was finally trained afterward model has shown negative influence. These experimental results are presented in this paper.

References

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Index Terms

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Keywords
Back-propagation; neural network; global minima; prediction; chaos; internal dynamics