

学术探讨

## 混沌时间序列改进的加权一阶局域预测法

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**摘要** 加权一阶局域预测法是目前最常用的一种混沌时间序列预测方法。基于延迟坐标相空间重构理论, 提出了混沌时间序列改进的加权一阶局域预测法。仿真结果表明该方法的多步预测性能与一步预测性能明显好于加权一阶局域预测法的多步预测性能与一步预测性能。

**关键词** [加权一阶局域预测法](#) [相空间重构](#) [混沌时间序列](#)

分类号

## Improved adding weight first order local prediction method for chaotic time series

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### Abstract

Adding weight first order local prediction method is the most usually used method to predict chaotic time series. Based on phase space delay-coordinate reconstruction of a chaotic dynamics system, an improved adding weight first order local prediction method is proposed to predict chaotic time series in this paper. Simulation results show that the improved method can effectively make multi-step and one-step prediction of chaotic time series and the multi-step prediction performance and one-step prediction accuracy of the improved method are superior to those of the adding weight first order local prediction method.

**Key words** [adding weight first order local prediction method](#) [phase space reconstruction](#) [chaotic time series](#)

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