

数据库与信息处理

## 基于数据挖掘的网络论坛话题热度趋势预报

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摘要

利用小波分析和神经网络相结合的方法进行网络论坛话题热度趋势的预报。该方法主要是对由帖子的点击数(或回复数)所形成的原始时间序列进行小波多尺度分析,产生一系列子序列并进行评价,并通过BP神经网络进行类别训练,找出使得类内距离最小、类间距离最大的若干系数作为特征系数。对于未知类别的时间序列,把其特征系数送入神经网络进行预测。实验结果表明,将该方法用于网络论坛话题的热度趋势预测,可得出良好的预测精度。

关键词 [时间序列](#) [小波分析](#) [神经网络](#)

分类号

## Hot trend prediction of network forum topic based on data mining

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### Abstract

In this paper,a method was proposed,which combined wavelet multi-resolution decomposition and neural networks to forecast network forum topic hot trend.That was first,using wavelet multi-resolution to decompose the original time series formed from click numbers or reply numbers of forum post,to create a series of wavelet coefficients of the sub-series.Then,through BP neural networks to classify the hot post and normal post,coefficients were selected from all wavelet coefficients to form a feature coefficients set,which best enlarged the distance between different classes and reduced the distance within same classes.For the unknown time series,their feature coefficients were sent neural networks to forecast.This proposed method was tested to make better prediction accuracy for network forum topic hot trend.

Key words [time series](#) [wavelet analysis](#) [neural network](#)

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