高流量负荷下基于支持向量机的空间数据聚类方法

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摘　要：目前通常采用聚合法和分裂法对空间数据进行分类处理及分层次解析，其分析速度不高，局限性较大.为了加快空间数据聚类速度，提高数据分类的准确率，提出一种基于支持向量机的空间数据聚类方法，首先对空间数据进行预处理，根据小波多窗普特特征过滤筛除冗余数据，其次划分过滤后数据的子区间，作为查询数据时的限定条件提取数据，根据空间数据的具体特征，将描述空间数据个体的集合划分为一系列相互独立的组，确定数据集的空间分布规律，实现聚合空间数据.实验结果证明，所提方法对空间数据具有很高的分类效率，且准确率较高.

关键词：空间数据聚类；支持向量机；空间分布规律

Spatial Data Clustering Method Based on Support Vector Machine Under High Traffic Load

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Abstract：At present, the method of aggregation and splitting is used for spatial data classification and hierarchical analysis. The analysis speed is not high and the limitation is large. In order to speed up the spatial data clustering speed, improve the accuracy of data classification, this paper presents a spatial data clustering method based on support vector machine, firstly, spatial data preprocessing based on wavelet multi window feature pute filtering sieving redundant data, then filtered according to the number of divided subintervals, as defining data extraction condition query data when, according to the specific characteristics of spatial data, the spatial data describing the individual collection into a series of independent groups, determine the spatial distribution of the data set, to realize spatial data aggregation. The experimental results show that the proposed method has high classification efficiency and high accuracy.

Key words： spatial data clustering; support vector machine; spatial distribution

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