

技术应用

结合UPSCALING技术与对象多特征的土地利用覆盖信息提取研究

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摘要:

应用SPOT融合数据, 以北京密云地区为例, 提出了整合Upscaling技术与对象多特征方法的新思路, 通过基于半变异函数的

空间变异特征分析, 建立了面向对象多特征与多分辨率数据集的多尺度分类决策树, 并对自动分类效率进行了初步探讨。

关键词: UPSCALING 半变异函数 对象多特征 多分辨率数据集 土地利用/覆盖

THE EXTRACTION OF LAND-USE/COVER INFORMATION IN COMBINATION WITH UPSCALING METHODS AND OBJECT MULTI-FEATURES

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Abstract:

On the basis of a case study in Miyun area of Beijing, a new strategy of classification of land-

use/cover integrated with the up-scaling methods and object multi-features in the high resolution SPOT fused image

was introduced. Multi-resolution dataset was built using up-scaling methods, and optimal resolution images were

selected by semi-variance analysis. Relevant optimal spatial resolution images were adopted for different classes.

Object multi-features, which included spectral information, generic shape features, class related features, and

new computed features, were introduced. A multi-scale decision tree was set up based on object multi-features, and

different classes were extracted from multi-resolution images. Afterwards, further discussion and comparison for

improving the efficiency and accuracy of classification were presented. The results show that the proposed image

analysis approach can successfully decrease the heterogeneity, smooth the noise influence, reduce computational

and storage burdens and improve the classification efficiency in the high spatial resolution image.

Keywords: Up-scaling Semi-variance Object Multi-features Multi-resolution Database Land use / cover

扩展功能

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