

基于地统计学的降雨侵蚀力插值方法研究——以江苏省为例

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Geostatistics-Based Spatial Interpolation Method for Study of Rainfall Erosivity——A Case Study of Jiangsu

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摘要

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摘要 利用江苏省2001—2006年260个站点的自动记录降雨资料,运用卜氏算法计算各站点多年平均降雨侵蚀力,并结合地统计学进行分析与误差对比,结果显示在二阶、球型半变异函数模型参数条件下,普通Kriging插值方法的模拟精度较高,在江苏省具有较好的适用性;基于水土保持工作中雨量站点的选址原则共选取了21个代表站,通过优选出的普通Kriging插值方法对代表站的代表性进行了验证,结果显示选址方法可行。

关键词: 降雨侵蚀力 地统计 插值 江苏

Abstract: The research on choice of spatial interpolation methods for studying spatial and temporal distribution of erosivity has positive significance to forecasting of soil loss and planning for soil and water conservation. Based on the rainfall records of the 260 stations in Jiangsu Province from 2001 to 2006, mean rainfall erosivity of each station over the years was worked out using Bu-algorithm, and analyzed and compared with geostatistics for errors. Results show that the ordinary Kriging method, with the presence of parameters of the second-order, spherical semi-variogram model, performed better than other interpolation methods, and it fits with Jiangsu Province quite well. Based on the principles for location of the rainfall stations of the soil and water conservation project, the chosen ordinary Kriging method was used to verify the locations of some representative stations. It was found that the site selection method was feasible.

Keywords: rainfall erosivity geostatistics interpolation Jiangsu

Received 2010-11-03;

Fund:

江苏省水利厅资助项目(20080912032)

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引用本文:

李璐, 姜小三, 孙永远. 基于地统计学的降雨侵蚀力插值方法研究——以江苏省为例[J] 生态与农村环境学报, 2011, V27(1): 88-92

LI Lu, JIANG Xiao-San, SUN Yong-Yuan. Geostatistics-Based Spatial Interpolation Method for Study of Rainfall Erosivity——A Case Study of Jiangsu[J] Journal of Ecology and Rural Environment, 2011, V27(1): 88-92

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