研究报告

植被归一化指数(NDVI)及气候因子相关起伏型时间序列变化分析

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摘要

利用中国大陆1km分辨率的月NDVI数据和相应的400个国家标准气象站点的月降水、月均温数据，依据中国气象局提出的气候分区,探讨了不同气候区NDVI与气候因子之间的时、空变化格局.结果表明，各月份降水与NDVI相关性均显著相关；起伏型时间序列模型能很好地拟合相关性的时间序列的动态变化，NDVI与降水的相关性拟合结果好于与温度相关性的拟合结果，全国范围内，与降水相关性拟合的R^2为0.91，与温度相关性拟合的R^2为0.86.

关键词　NDVI；降水；气温；起伏型时间序列；模拟
分类号

Wave-type time series variation of the correlation between NDVI and climatic factors

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Abstract

Based on the 1992~1996 data of 1km monthly NDVI and those of the monthly precipitation and mean temperature collected by 400 standard meteorological stations in China,this paper analyzed the temporal and spatial dynamic changes of the correlation between NDVI and climatic factors in different climate districts of this country.The results showed that there was a significant correlation between monthly precipitations and NDVI.The wave type time series model could simulate well the temporal dynamic changes of the correlation between NDVI and climatic factors,and the simulated results of the correlation between NDVI and precipitation was better than that between NDVI and temperature.The correlation coefficients (R^2) were 0.91 and 0.86,respectively for the whole country.

Key words

NDVI　Precipitation, Temperature, Wave-type time series, Simulation

通讯作者

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