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Title: Periodicity research of Indian summer monsoon rainfall

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摘要: 印度夏季风降水(ISMR)在南亚气候系统中是一个非常重要的内容,近年来对它的研究日益受到人们的重视。为了深入认识ISMR的变化特征,主要利用Scargle周期图和小波变换研究了1871-2004年间ISMR变化的周期性。结果表明,ISMR的周期性波动非常复杂,相应的周期参数具有明显的时变特征。文中还简单讨论了ISMR周期时变的可能原因。

Abstract: Indian summer monsoon rainfall (ISMR) is an important composition of the climate system in South Asia. Recently, more and more attention has been paid to research on ISMR. In order to understand deeply variable characteristics of ISMR, the authors mainly use Scargle periodogram and wave let transform to study periodicity of ISMR during 1871-2004 in present paper. Results show that variations of ISMR are very complicated, with remarkable time-variation characteristics of periodicity parameters. Finally, some possible causes about time-variation characteristics are discussed.

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