

# TREND OF EXTREME TEMPERATURE IN SOUTHWEST CHINA IN RECENT 41 YEARS

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Based on the maximal/minimum daily precipitation data of 90 meteorological stations of Southwest China during 1970-2010, used 4 extreme temperature indices defined by the world meteorological organization. The F test, Mann-Kendall test and wavelet analysis are used to analyze the temporal and spatial distributions of extreme temperature events in Southwest China in recent 41 years. The results indicate that in recent 41 years, hot days and cold days are symmetrical in local places, hot nights and cold nights are symmetrical in most areas. In recent 41 years hot extreme indices showed significant increasing trend; cold extreme indices showed significant decreasing trend. There were significant mutations of hot days and cold nights around 2004 and 1994; there was a mutation of cold days around 1997; hot nights did not exist a mutation. The periodic oscillation of hot extreme indices and cold extreme indices were not the same, but all of them existed a four year period oscillation.

Key words : Southwest China; extreme temperature; variation trend

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