Geophysical Research Abstracts
Vol. 16, EGU2014-1518, 2014
EGU General Assembly 2014

Trends of cold and heat waves in Serbia

Miroslava Unkašević and Ivana Tošić
Institute for Meteorology, University of Belgrade - Faculty of Physics, Belgrade, Serbia (miroslava.unkasevic@ff.bg.ac.rs)

The series of the daily minimum and maximum temperatures at fifteen stations in Serbia were used to calculate the cold and warm spell duration indicators, from which the duration and severity of the cold and heat waves were estimated. The trend analysis for all seasons was presented using the data from 1949 to 2012.
The most important result of this study is the significant decreasing trends in the frequency of cold waves and increasing trends of heat waves in Serbia. An analysis of the daily minimum temperatures almost at all meteorological stations revealed that the longest and most severe cold waves were observed in winter of 1956, spring of 1987, summer of 1962 and 1996, and during the autumn 1983 and 1988. The longest and most severe heat waves, based on the analysis of the daily maximum temperatures, were recorded in winter of 2007, spring of 2003, summer of 2012, and after 1989 during the autumn. The longest heat waves observed in 2012 did not reach the severity of the heat waves in 2007 at ten of fifteen stations. The obtained results indicated that the warming in Serbia was more related to increase in frequency of heat waves than to reduction in cold waves.