



Trend or jump in recent surface air temperature time series in the Balkans?

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Changes in the mean annual air temperature measured at 67 meteorological stations in the Balkans during the last 48 (from 1961 to 2008) to 158 (from 1851 to 2008) years were investigated. This presentation is an attempt to show variability of regional climate using available relatively long-term time series of mean annual air temperature. The problem of causes (anthropogenic or natural) of the air temperature increase in the analysed region will not be discussed. The main purpose is to analyse records of air temperature during the 20th century in order to identify timing and magnitude of increase of air temperature observed in last twentieth years. Methods of rescaled adjusted partial sums (RAPS), regression and correlation analyses as well as F- and t-tests are used in order to describe changes in air temperature regimes. The analyses indicated that the most frequently statistically significant changes started in 1988 (at 34 gauging station or 50.7 %) and in 1992 (at 16 gauging station or 23.9 %). It was calculated that the increases of average mean annual air temperatures in period before and after warming is 0.807 °C ranging from the minimum value of -0.11 °C (decreasing) to the maximum value of 1.56 °C (increasing).