



Heat waves in Romania. Regional features, changes and estimated impact

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Climate changes, including changes in extreme weather events, have currently become one of the major social, economic and environmental threats. The main aim of this study is to present the spatio-temporal features and changes that occurred in heat waves in Romania over a period of 53 years: 1961-2013. The identification of heat waves was made considering the maximum daily temperature data series recorded in 22 weather stations based on the 95th percentile threshold, and a minimum duration of three consecutive days. Four parameters of the heat waves were considered for further analysis: heat waves number, heat waves day frequency, heat waves mean duration, and heat waves maximum duration. The main results are: the most numerous and the longest heat waves are specific to the Southern and Western regions of Romania, while the less and the shortest ones were recorded in the Southeast part of the country; in terms of trends, most of the slopes calculated are positive and the great majority of weather stations recorded increasing trends to all heat waves parameters (77-95 %) and more than 70 % of the slopes were found statistically significant.