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# Frequency of occurrence of drought in southern part of Romania. Correlations with air circulations types

C. Burada (1,2), S. Stefan (1), N. Barbu (1), and L. Velea (3)

(1) University of Bucharest, Faculty of Physics, Dept. of Atmospheric Physics, 405, Atomiştilor Street, P.O.BOX MG-11, RO-077125 Măgurele, Romania, (2) National Meteorological Administration, Regional Meteorological Center Craiova, 3A, Brestei Str., Craiova, Romania (burada_cristina@yahoo.com), (3) National Meteorological Administration, Bucharest, Romania

The aim of this paper is to determine the potential impact of climate changes in southern Romania in the last fifty years. In order to achieve this objective we analysed precipitation amounts using Weighted Anomaly Standardized Precipitation index, which is a method recommended by WMO both for the significant results obtained and for the ease of calculation. We found the drought periods and the areas affected by dryness (and/or aridity, if case, using also Angot Index, de Martonne index and Precipitation Concentration Index) and then we calculated and analysed the annual, semestrial and seasonal frequencies of these periods, as well as their tendency of evolution. In the second part of the work we evaluated the air circulation types over Romania using objectives methods (the WLKC733 and GWTcatalogues from COST733 project) and we determined the frequency of each type. Finally we found some good correlations (positive as well as negative) between monthly amounts of precipitations and the most frequent air circulation types.

Keywords: air circulation types, drought periods, trends, southern Romania