VARIATIONS IN PRECIPITATION IN REPUBLIC OF MACEDONIA

Mihailo Zikov

University "St's Cyril and Methodius" Faculty of Natural Sciences and Mathematics, Institute of Geography, Republic of Macedonia zikov@pmf.ukim.mk

Verica Bakeva

University "St's Cyril and Methodius" Faculty of Computer Science and Engineering, Republic of Macedonia verica.bakeva@finki.ukim.mk

One of the most important meteorological element in modern climatology is the study of the regime of the multiyear changes in precipitation. Therefore, in this paper, we analyze the variations in precipitation in the Republic of Macedonia. We consider the measuring points Skopje, Stip, Demir Kapija and Prilep in the period from 1925 to 2003. Using several mathematical-statistical and analytical methods we make attempt to discover the characteristics of the structure of the multiyear variations in precipitation as the distribution of precipitation from year to year, linear trend, the extreme phenomena, the existence of cycles, e.t.c. The obtained results provide an answer to many issues related to the considered subject.

Key words: Rain-sum, variations, regression line, time-series analysis