XIV SERBIAN-BULGARIAN ASTRONOMICAL CONFERENCE

23 – 27 September, 2024, Vrnjačka Banja, Serbia Book of Abstracts, eds. M.S. Dimitrijević, E. Semkov, Z. Simić, G. Damljanović, M. Dechev

http://doi.org/10.69646/14sbac27a

ANALYSIS OF A SELECTION OF TIME SERIES OF METEOROLOGICAL OBSERVATIONS IN BULGARIA BETWEEN 1900 – 2023

GROZDAN SHIROV¹, TSVETAN TSVETKOV¹, NIKOLA PETROV¹

¹Institute of Astronomy and National Astronomical Observatory, Bulgarian Academy of Sciences, 72 Tsarigradsko shose blvd., 1784 Sofia, Bulgaria E-mail: gshirov@astro.bas.bg

Rich archive of meteorological observations from different stations on the territory of Bulgaria, digitalized and analyzed. The main source of data is the yearbook of the National Institute of Meteorology and Hydrology by the Ministry of Environment and Water for the period of 1900 to 2023. This is the most complete as well as the only trustworthy source of data for obtaining scientific results. Our mathematical analysis is based on the monthly average value of temperature and precipitation. For the mathematical analysis we have used mainly software packages of MATLAB. For the digitalization we have used optical character recognition (OCR) packages such as Tesseract and Textract (from Amazon Web Services). Our results are oriented in search of connections between various factors influencing locally short term as well as centennially of the analyzed parameters.