

**RELATIVE-COORDINATE DETERMINATION FOR VISUAL
DOUBLE STARS BY APPLYING FOURIER TRANSFORMS**V. RADOVIĆ¹ R. PAVLOVIĆ² and Z. CVETKOVIĆ²

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Abstract. Here we discuss a software developed for the purpose of determining the relative coordinates (position angle θ and separation ρ) for visual double or multiple stars. It is based on application of the Fourier transforms in treating CCD frames of these systems. The objective was to determine the relative coordinates automatically to an extent as large as possible. In this way the time needed for the treatment of many CCD frames becomes shorter. The abilities and limitations of the software are also examined. Besides, the possibility of improving it is also considered. The software has been tested and checked on a sample containing CCD frames of 165 double or multiple stars, obtained with the 2m telescope at NAO Rozhen in Bulgaria in October 2011. The results have been compared to the corresponding results obtained by applying different softwares and the agreement is very good.

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