Kinematics of a Sample of Visual Double Stars

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Abstract

The Hipparcos-Input Catalogue contains also about 8000 already known visual double stars. In the framework of this project campaign, in addition to other parameters, were also determined the parallaxes π, as well as the polar coordinates ρ and θ for double stars. On the basis of a comparison of these data to those obtained earlier from the ground based measurements (WDS Catalogue) statistical examinations of a double star sample ($1'' \leq \rho \leq 10''$) are performed.

It is shown that an exeptionally good agreement exists of the statistical distribution $\Delta\theta/\Delta t$ of the sample as function of $\rho(AU)$ and the curve $\dot{\theta} = \frac{C(\rho)}{\rho^2}$ representing the II Kepler law.