

**MODERN METHOD OF CREATE AND RESEARCH THE  
LARGE ASTROMETRIC CATALOGS.**

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In this work we present some problems of creation new high-density astrometric catalog of more than one billion positions and absolute proper motions objects obtained from the SuperCOSMOS Science Archive. Removing the junk detections, cross-identification large dataset, astrometric reduction and star-galaxy classification are very important tasks in this work.

Some methods for astrometric and kinematics research of large catalogs have been describe. For analysis astrometric catalogs we present the method described by Roland Wielen. Using three or more independent catalogues, it is easy to estimate the external accuracy of each of them. The kinematics studies of the Galaxy we using classical Ogorodnikov-Milne model and mathematics method of Vector Spherical Harmonics.

For provide quick access to modern astronomical catalogs that contains data for celestial objects including stars, galaxies, quasars and others objects has been developed database.