

Russian Space Astrometrical Experiment “Svecha”

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General goals of the “Svecha” space experiment are:

- 1). Astrometrical catalog of all objects (coordinates, proper motions and parallaxes) with precision of $25 \mu\text{as}$ for objects to 16^m and with precision of $100 \mu\text{as}$ for objects to 20^m .
- 2). Catalog of multiband photometry (10–16 filters) with precision of 0.001^m for all objects to 18^m and with precision of 0.01^m for objects to 22^m .
- 3). Catalog of radial velocities for all objects brighter than $18 - 19^m$ in 4–6 spectral intervals independently.
- 4). Medial resolution spectral catalog ($R = 1/1000 - 1/3000$) for all objects to 12^m (and to $16 - 18^m$ selectively).

The experiment will be based on an autonomous satellite on geosynchronous orbit.

The mission is at the theoretical stage of development.

The construction of the satellite and astrophysical applications will be discussed.