

Kuiper-Belt Objects: Distribution of Orbital Elements and Observational Selection Effects

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The influence of the observational selection effects in the set of the known Edgeworth-Kuiper belt objects is investigated. The most important observational selection effect is closely connected with the fact that discoveries of the objects were done i) near their orbital nodes, or, ii) objects with small inclinations are known. Concentration of perihelia of the known Edgeworth- Kuiper belt objects corresponds to the direction of vernal equinox. The decrease of the concentration in some region(s) may be caused by observational selection effects (together with the fact that greater part of objects with higher absolute magnitudes is observed). Radial distribution of EKO in perihelion distance corresponds to constant linear density – this would suggest not ecliptically concentrated form of the cloud of EKOs.