

Heterogeneity of sporadic meteor complex as the rich data for possible prediction of comets, asteroids and other bodies (ESA SP-500)

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Abstract

A quasi-thomography procedure application to the goniometric data of a meteor radar has allowed confidently to allocate showers and microshowers by compact groupings of angular coordinates of radiants, velocities and dates of detection of meteors and it has increased accuracy of radar radiant measurements up to $2^\circ \times 2^\circ$. Results of nonstop goniometric observation in December 1993, 1998 and 2001 were analyzed. In December 1998 we have found out 74 small meteor showers. Apart from them we have detected 211 micro showers, the part from which was grouped together with the small showers. Maps of radiant distribution of the allocated showers on celestial sphere are constructed. A nature of appearance of a radiant accumulation ("clouds") near Geminids radiant is discussed. The knowledge of orbits of a many showers and microshowers is some kind of the indication of the purpose for search of their parents body.
