EPSC Abstracts,
Vol. 2, EPSC2007-A-00033, 2007
European Planetary Science Congress 2007


# The extra-atmospheric masses of small meteoric fireballs from the Prairie and the Canadian camera networks.

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Existing methods of definition of extra-atmospheric masses of small meteoric bodies according to supervision of their movement in an atmosphere contain the certain arbitrariness. Vigorous attempts to overcome a divergence of results of calculations on the basis of various approaches often lead to physically incorrect conclusions. The output consists in patient accumulation of estimations and calculations for gradual elimination uncertainties.

The equations of meteoric physics include two dimensionless parameters - factor ablation $\beta$ and factor of braking $\alpha$. In work are cited the data processing supervision of small meteors Prairie and Canadian networks, by a finding of values of parameters $\alpha$ and $\beta$ with use of a method of the least squares. Also values of heights blackout a meteor which turn out from conditions of full destruction or final braking with use of the received values of $\alpha$ and $\beta$ are considered. In prevailing number of supervision for considered meteors braking is insignificant. Results of calculations of height of blackout meteors confirm suitability of the approximations used in work for the description of movement of small meteors. In work results of calculation of extra-atmospheric masses with use of factor of braking for meteoric bodies of the spherical form with density of an ice and a stone are presented. On the basis of the received results discrepancy of photometric masses to values of masses of the input, received on observable braking proves to be true. In most cases received magnitude of masses essentially less photometric masses. Processing of supervision of small meteors Prairie and Canadian camera networks has shown, that the so-called photometric mass mismatches

values of mass of the input, defined on observable braking. Acceptance of photometric value as the mass defining braking of a body, leads to obviously underestimated values of density of substance meteoric body. The further researches on specification of interpretation of supervision, and also with the purpose of search of new channels of information about the meteoric phenomena are necessary.