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Physical properties of Lyrid meteoroids

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Abstract

We have developed a new method to describe the light curves of faint video meteors [1]. Instead of the traditionally used statistical parameter F [2] we took into account another one, Levin's parameter μ, which has a physical meaning [3]. The successful application was demonstrated on several shower and sporadic meteors [1].

The Lyrid meteor shower was intensively observed using the video technique in recent years. We have recorded several hundred of double station meters belonging to this shower.

In this paper we will present the results of this double station experiment. We are interested in the beginning heights of the meteors as well as their light curves. We will provide the comparison of those properties with other meteor showers.

We will apply above mentioned method on selected meteors with the best recorded data with the aim to determine physical properties of the meteoroids. Using such homogenous sample of the data – with same velocity and composition – we will look for the possible relations between parameters F and μ.

References

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