

EXPLORING THE RELATIONSHIP BETWEEN METEOR PARAMETERS BASED ON TV OBSERVATIONS

Gorbanev Yu, Shestopalov V., Leskovec R.

*The Research Institute "Astronomical Observatory" of the I.I.
Mechnikov Odessa National University, Odesa, Ukraine,
skydust@ukr.net*

Observational material obtained during the meteor patrolling in 2003-2016 at the Kryzhanovka station based on TV method was reduced.

The meteor patrol observations are carried out at the different weather conditions and on the different horizontal altitudes. The undoubted value of observations is their regularity and homogeneity.

As a results of meteor patrolling we get the TV record with a certain space and time resolution. To resolve specific tasks of the meteor astronomy as a rule one needs to use observational material collected on the large time interval. At the same time the sky quality changes not only from night to night, but also during the night.

To estimate the sky quality which could be acceptable for TV observations we developed the method which is based on the star image flickering. This method enables one to get the numerical characteristics of the sky quality.

Using our long term meteor observations we discuss the dependence between the meteor particle entry angle with respect to the Earth's atmosphere and a time on an example of the Geminides meteor shower. We make a comparison with the results of other observers and give some interpretation of the obtained results.