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## Identification of meteorite particles from AMOS data using the new user-friendly software interface.

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All-sky camera systems such as the AMOS network, record a large number of fireball events. By using multi-station triangulation method obtain information about trajectory of the body in the description change in altitude and velocity over time. Based on the characteristic of the object trajectory can determine important physical properties as the input mass of the meteoroid or the final mass of meteorites, and thus the probability of the formation and impact of particles on the Earth's surface. For this purpose, we used the method of dimensionless coefficients  $\alpha$  (ballistic coefficient) and  $\beta$  (mass loss coefficient), which define the impact of the dynamical and physical properties of meteoroids on the searched input/final masses.

Large number of recorded fireballs requires automatic data processing and their effective reduction. For this purpose, we have created a program with a user interface that works with data from all-sky fireballs cameras (in our case we focus on data from the Slovak AMOS system), defines the values of  $\alpha$ - $\beta$  coefficients and evaluates the probability of the meteorite formation with specific mass during the flight through the atmosphere. The program gives an interactive settings of physical parameters of the body and thus defines impact on the required values of body input/final masses. This algorithms was created for the purpose of user-friendly processing of scientific data, and the same time serves for the selecting suitable candidates for the formation and impact of dust particles and meteorites on the Earth's surface.