

Dust and meteoroid trails: observations and evolution

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Interrelation between comets and meteoroids is one of the interesting topics to understand the origin and evolution of cometary dust. Although the existence of dust trails is well known in the field of meteor science for many years, the knowledge is limited to the specific comets. Recently, wide-field CCD camera allows us to obtain the direct images of dust trails [1]. Since the remote observations are the only way to obtain the synoptic view of dust trails for all observable comets, it is effective to know how the particles ejected from the comets and dynamically evolved. In this presentation, we present initial results from dust trail survey performed by three ground-based observatories. These include the survey result by three observatories; Kiso 1.05 Schmidt, UH 2.24m and CFHT 3.6m, and the comparison with dynamical model for several comets.

Keywords: Comet, Meteoroid, Interplanetary Medium



Figure 1. Comet 67P/Churyumov-Gerasimenko and its dust trail

References

- [1] M. Ishiguro, et al. *ApJ* **572**, L117 (2002)