



Astrophysics > Instrumentation and Methods for Astrophysics

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Unidentified aerial phenomena I. Observations of events

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NASA commissioned a research team to study Unidentified Aerial Phenomena (UAP), observations of events that cannot scientifically be identified as known natural phenomena. The Main Astronomical Observatory of NAS of Ukraine conducts an independent study of UAP also. For UAP observations, we used two meteor stations. Observations were performed with colour video cameras in the daytime sky. We have developed a special observation technique, for detecting and evaluating UAP characteristics. According to our data, there are two types of UAP, which we conventionally call: (1) Cosmics, and (2) Phantoms. We note that Cosmics are luminous objects, brighter than the background of the sky. Phantoms are dark objects, with contrast from several to about 50 per cent. We observe a significant number of objects whose nature is not clear. Flights of single, group and squadrons of the ships were detected, moving at speeds from 3 to 15 degrees per second. Some bright objects exhibit regular brightness variability in the range of 10 - 20 Hz. We use colourimetry methods to determine of distance to objects and evaluate their colour characteristics. Objects RGB colours of the Adobe colour system had converted to the Johnson BVR astronomical colour system using the colour corrections. Phantom shows the colour characteristics inherent in an object with zero albedos. It is a completely black body that does not emit and absorbs all the radiation falling on it. We see an object because it shields radiation due to Rayleigh scattering. An object contrast makes it possible to estimate the distance using colourimetric methods. Phantoms are observed in the troposphere at distances up to 10 - 12 km. We estimate their size from 3 to 12 meters and speeds up to 15 km/s.

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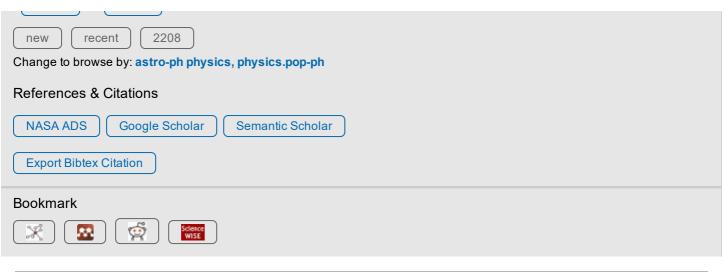
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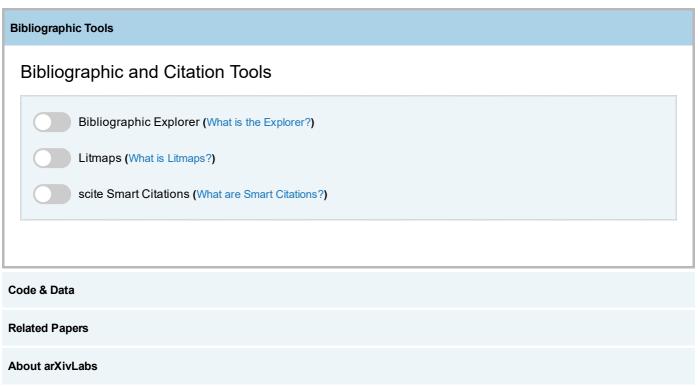
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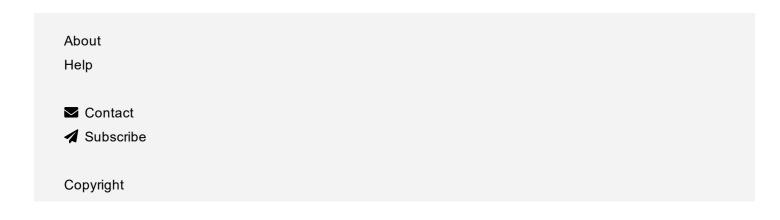
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