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Recent analysis on asteroidal thermophysical property revealed that there is a tendency that their thermal inertia decrease with their sizes at least for main belt asteroids. However, little is known about the thermal properties of comet-like bodies. In this work we utilized a simple thermophysical model to calculate the thermal inertia of a bare nucleus of comet P/2006 HR30 (Siding Spring) and an asteroid in comet-like orbit 4015 Wilson—Harrington from AKARI observation data. It is also shown that the determination of their thermal inertia is very sensitive to their spin vector, while the diameter is rather easy to be constrained to a certain range by combining multi-wavelength observational data. Thus, we set diameter and hence the geometric albedo as fixed parameters, and inferred the spin vector and thermal inertia of the targets. Further detailed analyses on these cometary bodies will shed light on our understanding of the detailed surfacial characteristics of them.

[포 SS-08] Relationship between solar flares and halo CMEs using stereoscopic observations

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To find the relationship between solar flares and halo CMEs using stereoscopic observations, we investigate 182 flare-associated halo CMEs among 306 front-side halo CMEs from 2009 to 2013. We have determined the 3D parameters (radial speed and angular width) of these CMEs by applying StereoCAT to multi-spacecraft data (SOHO and STEREO). For this work, we use flare parameters (peak flux and fluence) taken from GOES X-ray flare list and 2D CME parameters (projected speed, apparent angular width, and kinetic energy) taken from CDAW SOHO LASCO CME catalog. Major results from this study are as follows. First, the relationship between flare peak flux (or fluence) and CME speed is almost same for both 2D and 3D cases. Second, there is a possible correlation between flare fluence and CME width, which is more evident in 3D case than 2D one. Third, the flare fluence is well correlated with CME kinetic energy (CC=0.63). Fourth, there is an upper limit of CME kinetic energy for a given flare fluence (or peak flux). For example, a possible CME kinetic energy ranges from 1030.6 to 1033 erg for a given X1.0 class flare. Our results will be discussed in view of the physical mechanism of solar eruptions.