



Visible and infrared observations of interplanetary dust

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We are promoting observations of interplanetary dust cloud at visible and infrared wavelength. We developed a new observation system WIZARD. Since the zodiacal light is faint and very extended all over the sky, WIZARD employs a sensitive CCD which is cooled by a liquid nitrogen, and a wide field optics with spatial resolution to remove the contamination of the individual stars.

WIZARD is designed to measure the absolute brightness of the diffuse sky at visible wavelength, and to have stability of the system zero-level as well as low noise feature. We have been conducting extended observations of the zodiacal light along the ecliptic plane, for three years at NASA/ IRTF site.

We present preliminary results of our observations, as well as observations of cometary dust at ground-based telescopes, and early results by ASTRO-F/AKARI.