

[AK07] A Report on the Reduction of AKARI IRC All-Sky Survey Data
for Zodiacal Emission

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The all-sky survey being conducted by AKARI, the Japanese infrared space observatory launched on February 22, 2006, will provide us with a wonderful opportunity, following IRAS and COBE, to make detailed observations of the zodiacal emission (ZE). Advantages of AKARI to her predecessors are evident in the sense of much improved spatial resolution and detection sensitivity. Currently we are in the process of reducing the ZE brightness from the InfraRed Camera (IRC) survey observations. The raw data from the camera aboard AKARI require corrections for the following features: i) wavy signal fluctuations caused by internal electronics, ii) discrepancies in the reset anomaly and the detector's linearity between their laboratory experiments and on-flight measurements, and iii) the Earth light scattered into IRC by the telescope baffle. These features have little effect on point source photometry, but do have much impact on the photometry of extended sources like the ZE. We will present our correction strategies and some very preliminary results of the reduction.

[AK08] A Multiband Optical Survey of the North Ecliptic Pole Region

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We present a five (u,g,r,i,z) band optical photometry survey of the North Ecliptic Pole (NEP) region based on deep observations made with MegaCam at CFHT. The total number of sources brighter than $r=23$ mag is about 56,000 including both point sources and extended sources. From the investigation of photometric properties using the color-magnitude diagrams and color-color diagrams, we have found that the extended sources can be reliably separated from the point sources using (u-r) and (g-z) colors, even for the faint sources. The photometry data generated from this survey will be used in combination with the IR data provided by AKARI for the identification of IR sources.