

[AK-03] **Preliminary Results from NEP-Wide Survey of AKARI**

이형목¹, 김성진¹, Takehiko Wada²,
 Hideo Matsuhara², 임명신¹, 이명균¹
¹Seoul National University, ²ISAS, JAXA

NEP-Wide is one of the Large Area Surveys of AKARI Space Telescope. It covers about 5.8 sq. deg. circular area centered on North Ecliptic Pole with 9 photometric bands from 2 to 24 micron, consisting of 446 pointing observations. A preliminary catalogue has been produced in 8 AKARI IRC bands from 2 to 18 micron.

The entire sample consists of about 97000 sources that are detected at least in one band. These sources include stars and galaxies of various types. The stars occupy very narrow range in near infrared colors and can be easily separated from extragalactic sources that have much wider color ranges. The source count at 15 micron band is very consistent with the previous works based on NEP-Deep data. The counts in other mid-infrared bands such as 7, 9, 11, and 18 microns are carried out, and the implications of the results will be presented.

This work is based on observations with AKARI, a JAXA project with the participation of ESA.

[AK-04] **Reduction of the AKARI's NEP-Wide Survey Data**

김성진¹, Takehiko Wada², Shinki Oyabu²,
 Yoshifusa Ita², 임명신¹, 이형목¹, Hideo Matsuhara²
¹Seoul National University, ²ISAS, JAXA

NEP-Wide is one of the Large Area Surveys of AKARI Space Telescope. It covers about 5.8 sq. deg. circular area centered on North Ecliptic Pole with 9 photometric bands from 2 to 24 micron, consisting of 446 pointing observations. The preprocessing such as corrections for dark, flat and aspect ratio as well as the astrometry have been conducted by the IRC pipeline version 071017. Using the preprocessed data, we have produced the mosaic images of all bands except for 24 micron using SWarp software. Then band-merged image has been made for the detection of sources. We have carried out aperture photometry at positions where sources have been found on mosaic image data of each band. Both source detection and aperture photometry were done using SExtractor in dual mode operation. The preliminary catalogue contains about 97000 sources.

This work is based on observations with AKARI, a JAXA project with the participation of ESA.