[포GC-07] Kinematics of Satellite Systems of Galaxies: Prograde and Retrograde Motion

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We present a kinematic analysis of galactic satellite systems using the Sloan Digital Sky Survey (SDSS) data. We have searched for galactic satellite systems in SDSS DR4plus sample and have compared the physical parameters of the satellite galaxies in prograde and retrograde orbits. We have found that the fraction of prograde satellites decreases in the inner region, but increases in the outer region. Retrograde satellites are, on average, brighter than prograde satellites. For early-type satellites, retrograde galaxies appear to exhibit stronger star formation than prograde galaxies. For late-type satellites, dispersion in (u-r) colors for retrograde galaxies is larger than that for prograde galaxies. We have found no significant difference of structure parameters between prograde and retrograde galaxies. These differences between prograde and retrograde satellite galaxies will help us constrain the galaxy formation models.

[포GC-08] CIB Observational Plan with MIRIS

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The main payload of STSAT-3, MIRIS (Multipurpose InfraRed Imaging System) has the space observation camera with a wide field of view (3.67 deg. x 3.67 deg.) and the wavelength coverage from 0.9 to 2 μm. To reduce a thermal noise, we will cool down the telescope to 200K by a radiative cooling method. We will perform the CIB (Cosmic Infrared Background) observations in two wide bands (I and H band) and use one blank filter position to calibrate a dark level. Our primary target will be the North Ecliptic Pole (NEP) region which was already observed by the AKARI telescope, however, covered with central small regions (~ 6 sq. deg.). SEP (South Ecliptic Pole), SGP (South Galactic Pole) and NGP (North Galactic Pole) are also under consideration. In our observations, 10 deg. x 10 deg. wide region will be covered. Our goals are to reveal the large-scale (degree scale) CIB fluctuation detected by the IRTS (Infrared Telescope in Space) mission and to measure an absolute CIB level. Our observations will enable us to understand the origin of CIB.