

[ㄷGC-15] The study of ring galaxies and their environment

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We present preliminary results of a statistical study on ring galaxies using the SDSS DR7 dataset. The purpose of this study is to investigate the correlation between the formation of outer ring and the environments of their galaxies through the searching ring galaxies in the mass database. For our study, we have selected about 25,308 galaxies having axial ratio > 60 , radius $> 6''$ and $z < 0.05$ from SDSS DR7. By inspecting these candidate galaxies as direct visual, we have found about 531 candidates of ring galaxies. We are selecting actual ring galaxies through SPIRAL package in IRAF in first.

[ㄷGC-16] Subaru observation of EGS in Z_R-band

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EGS is a famous extragalactic fields which has multi-wavelength data and studied well. To discriminate high- z QSO at $z > 7$ from dwarf stars, $i-Y$ vs $Y-J$ color-color selection is very efficient. Also we found $i-z$ vs $z-Y$ selection is good method for high- z QSO selection from our previous work through Y -band observation of extragalactic fields. To discover $z > 7$, which is one of main goal of CEOU, we observe EGS field in Z_R-band using Suprim-Cam of Subaru telescope. We use Z_R-band installed in Suprime-Cam. Its center wavelength is $0.98\mu\text{m}$ and show almost similar characteristics near to Y -band. On a photometric night of grey moon 30th June, seeing is 0.5 arcsecond and depth is 24.5mag(Vega). We observed 2.5deg² area of EGS with 5 dithered 120 second exposure time by tiling them into 10 tiles. We reduced data using SDFRED package developed for Suprime-Cam data and Sextractor to detect astronomical sources. We present details of observation, reduction process and result of observation.