[포GC-30] Search for galaxy clusters in SA22

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The galaxy cluster is a good laboratory to test the cosmological model as well as the evolution of galaxies in the dense region. However the lack of wide and deep near-IR datasets has prevented to identify galaxy clusters at z>1. Here we merge a wide, deep near-IR datasets of UKIDSS DXS (J and K bands) and IMS (J band) with the CFHT Legacy Survey (CFHTLS) ugriz catalogue to detect galaxy clusters. We identify candidate galaxy clusters at z>0.8, where the near-IR dataset plays an important role to detect galaxies efficiently. The cluster mass is also estimated based on the cluster richness and the semi-analytical cosmological simulation.

[포GC-31] Missing Type I AGNs in the local universe

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Type I AGNs are classified by the presence of broad emission lines while Type II AGNs show narrow emission lines only. All-sky surveys such as SDSS provide large AGN samples for statistical studies. However, the AGN samples suffer selection bias due to the incomplete selection criteria. To investigate the missing Type I AGNs in optical spectroscopic surveys, we start with a sample of SDSS Type II AGNs at $0.02 < z < 0.05$, using the MPA-JHU SDSS DR7 catalog. We search for the hidden broad Hα component with both visual inspection and the multi-component spectral decomposition method. Out of 1383 Type II AGNs, we find a total of 62 missing Type I AGNs (~4.5%). The sample has mean black hole mass, log (M_{BH}/M_{SUN})=6.48±0.53, and luminosity, log $(L_{Hα}/erg\ s^{-1})$=40.52±0.33, with Eddington ratio, log (L_{bol}/L_{Edd})=-1.51±0.41. We will describe the sample and present the M_{BH}-σ_*, and M_{BH}-M_* relations of the sample in the context of the BH-galaxy coevolution.