[구ST-05] The Galactic Center: Not an Active Galactic Nucleus

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We present 10 μm - 35 μm *Spitzer* spectra of the interstellar medium in the Central Molecular Zone (CMZ), the central 210 pc x 60 pc of the Galactic center (GC). We present maps of the CMZ in ionic and H_2 emission, covering a more extensive area than earlier spectroscopic surveys in this region. The radial velocities and intensities of ionic lines and H_2 suggest that most of the H_2 0-0 S(0) emission comes from gas along the line-of-sight, as found by previous work. We compare diagnostic line ratios measured in the *Spitzer* Infrared Nearby Galaxies Survey (SINGS) to our data. Previous work shows that forbidden line ratios can distinguish star-forming galaxies from LINERs and AGNs. Our GC line ratios agree with star-forming galaxies and not with LINERs or AGNs.

[구ST-06] Photometric properties of the globular cluster system of the massive elliptical galaxy M86

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We present a photometric study of the globular clusters (GCs) in the giant elliptical galaxy M86 in the Virgo Cluster, using the Washington CT_1 images taken at the KPNO 4 m telescope. The color distribution of the GCs in M86 is bimodal. The radial number density profile of the blue GCs decreases more slowly as the galactocentric distance increases than that of the red GCs. The density profile of the red GCs is similar to the surface brightness profile of M86 stellar halo. The blue GCs have a roughly circular spatial distribution, while the red GCs have a spatial distribution somewhat elongated, which is consistent with the distribution of the galaxy stellar light. M86 GCs have the negative radial color gradient because the number ratio of the blue GCs to the red GCs increases as galactocentric radius increases. The mean color of the red GCs is similar to that of the stellar halo. The bright blue GCs in the outer region of M86 reveal a blue tilt that the mean colors of the blue GCs get redder as they get brighter. We discuss these results in comparison with other giant elliptical galaxies in the Virgo Cluster.