

[구ST-05] Spectroscopic Property of the Globular Clusters in Giant Elliptical Galaxy M86

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We present a spectroscopic study of the globular clusters (GCs) in the giant elliptical galaxy (gE) M86 in the Virgo galaxy cluster. Using the spectra obtained from the Multi-Object Spectroscopy (MOS) mode of Faint Object Camera and Spectrograph (FOCAS) on the Subaru Telescope, we measured the radial velocities of 25 GCs, the metallicities of 16 GCs, and the ages of 8 GCs in M86. The mean velocity and the velocity dispersion of the GCs are $\langle v_p \rangle = -354 \pm 80$ km/s and $\sigma_p = 292 \pm 32$ km/s, respectively. The M86 GC system shows some rotation with a large uncertainty and the velocity dispersion of the blue GC system is 60 km/s larger than that of the red GC system. The mean metallicity and age of M86 GCs are $\langle [\text{Fe}/\text{H}] \rangle = -1.13 \pm 0.47$ and $\langle t \rangle = 9.7 \pm 4.0$ Gyr, respectively. We found one GC younger than 5 Gyr. We discuss the spectroscopic results of the M86 GC system in comparison with the GC systems in other gEs.

[표ST-06] Finding Hidden Star Clusters Using the WISE

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We present a survey for finding hidden star clusters using the WISE data. There are more than two thousand star clusters in the current catalogs of star clusters in the Milky Way Galaxy. However, there are still numerous star clusters remaining to be discovered, especially, along the Milky Way. The WISE, NIR to MIR all sky survey, is an efficient source to find star clusters obscured by dust along the Milky Way. Taking the advantage of the power of WISE, we survey a wide area at $||l| < 30^\circ$ and $|b| < 6^\circ$, toward to the central region of the Milky Way to find new star clusters. To find cluster candidates, we used two kinds of method: the visual inspection and the brightness density investigation. We will report the progress of this survey.