

**[GC-09] Metallicity, age, and alpha-element of the globular clusters
in the Virgo giant elliptical galaxy NGC 4636**

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We present a spectroscopic study of the globular clusters (GCs) in the giant elliptical galaxy (gE) NGC 4636 in the Virgo cluster. Line indices of GCs in NGC 4636 are measured from the integrated spectra obtained with Faint Object Camera and Spectrograph (FOCAS) on the Subaru Telescope. We derive the [Fe/H] of the GCs in NGC 4636 using Brodie & Huchra (1990) method. The [Z/H], age, and alpha-element of the GCs are obtained from the comparison of the Lick line indices with the SSP model grid. We investigate the distribution and radial variation of the metallicity, age, and alpha-element of NGC 4636 GCs. The metallicity distribution of NGC 4636 GCs shows a bimodality. The chemical properties of these GCs show little radial variation. These results will be discussed with regard to the formation and evolution of NGC 4636.

[GC-10] Spectroscopy Of Globular Clusters In M87

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We have performed a spectroscopic study of globular cluster (GC) system associated with the Virgo cD galaxy M87 using the Subaru/FOCAS MOS mode. We derive ages, metallicities and abundance ratios from the GC spectra using Simple Stellar Population (SSP) models. The metallicity distribution function (MDF) obtained empirically based on Milky Way GCs is consistent with the MDF derived from SSP models. A comparison with a meta-analysis using literature data sample of 15 other GC systems shows good agreement with our results. The properties of GCs acquired from the spectra will be used to test the recent theoretical prediction of a significant inflection along the colour-metallicity relations (Yoon et al. 2006). If confirmed, the non-linearity of the relations would shed new light on the interpretation of the GC colour bimodality. The robustness of our results is being tested against the choice of a SSP model, measurement errors and sample selection towards the goal of better understanding the formation history of GCs and host galaxy.