

[P-043/ST-7] Variable Stars in the LMC Globular Clusters: NGC 2257 & NGC 2210

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We obtained B,V CCD images taken with CTIO 0.9-m telescope for the LMC globular clusters NGC 2257 & NGC 2210 on 14 nights in December 2007 and January 2008, and for the NGC 2257, NGC 2210, NGC 1466 and Reticulum on 9 nights in December 2008. Now, photometry and searching variable stars in the NGC 2257 and NGC 2210 was finished. We are writing three parts of papers for NGC 2257 and the first part was submitted to AJ. The first paper for NGC 2257 described the new data and compared it with the older data, and discussed the five new variable stars. The total number of variable stars now stands at forty-seven: 23 RRab stars, four of which show Blazhko amplitude variations; 20 RRc stars, one showing clear Blazhko variations and another showing possible Blazhko variations; the three RRd stars, all having the dominant period about 0.36 day and period ratios $P1/P0 \sim 0.7450$; and the LPV star located near the tip of the red giant branch. There are about 50 variable stars in NGC 2210. The preliminary results for the NGC 2210 would be presented.

[P-044/ST-8] SUBARU/FOCAS MOS of M87 Globular Clusters

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We present spectra of more than 100 globular clusters of M87, a Virgo giant elliptical, obtained using SUBARU/FOCAS MOS mode. We measure Lick indices (Burstein et al. 1984, Trager et al. 1998) within the spectral range of our GC sample, and using these indices, we derive fundamental parameters of the M87 GC system, such as ages, metallicities, and elemental abundances both empirically as well as using Simple Stellar Population (SSP) Models. The properties of GCs acquired from the spectra are used to test the recent theoretical prediction of a significant inflection along the colour-metallicity relations (Yoon et al. 2006). This non-linear nature of the colour-metallicity relation will shed new light on the interpretation of the GC colour bimodality. The robustness of our results are being tested against measurement errors, the choice of a SSP model, and sample selection towards the goal of obtaining more accurate information on properties of M87 GC system and the host galaxy.