

[S07-4] Kinematics of Globular Clusters
in Giant Elliptical Galaxy NGC 4636

H. S. Park¹, M. G. Lee¹, E. Kim², S. C. Kim^{1,3}, H. S. Hwang¹,
N. Arimoto⁴, C. Ikuta⁴, Y. Yamada⁶, M. Onodera⁶, K. Ohta⁷, N. Tamura⁷,
Y. Ohyama⁵, Y. Saito⁵

¹*Astronomy Program, SEES, Seoul National University, KOREA*

²*Smithsonian Astrophysical Observatory, Center for Astrophysics, USA*

³*Korea Astronomy & Space Science Institute, KOREA* ⁴*National Astronomical
Observatory of Japan, JAPAN,* ⁵*Subaru Telescope, USA*

⁶*Institute of Astronomy, School of Science, University of Tokyo, JAPAN*

⁷*Dept. of Astronomy, Faculty of Science, Kyoto University, JAPAN*

We present a kinematic study of globular clusters (GCs) in NGC 4636, a giant elliptical galaxy in Virgo cluster. The target globular cluster candidates were selected from the deep wide-field Washington CCD images taken with the KPNO 4-m Telescope, and their spectra were obtained with the Multi-Object Spectroscopy (MOS) of Faint Object Camera and Spectrograph (FOCAS) on the SUBARU 8.2-m Telescope. Radial velocities were estimated for all samples to see the kinematics of the GC system. And the kinematic difference between the metal-poor GCs and the metal-rich GCs were also investigated. Using the dynamical model with radial distribution data of GCs and mass profile of NGC 4636, we inferred the orbital properties of the GC system in this galaxy. These results provide strong constraints to the formation of NGC 4636 and its GC system.

[S08-1] Characteristics and Performance of a Fast CCD Camera:
DALSTA IM30P

Young-Min Seo, Ki-Woong Park, Jongchul Chae
Astronom Program, SEES, Seoul National University

We have been developing a solar observing system based on a fast CCD camera IM30P made by the DALSA company. Here we examine and present the characteristics and performance of the camera. For this we have analyzed a number of images of a flat wall illuminated by a constant light source. As a result we found that in the default operating mode 1) the bias level is 49 ADU/pix, 2) the dark current is about 8 ADU/s/pix, 3) the readout noise is 1.3 ADU, and 4) the gain is about 42 electrons/ADU. The CCD detector is found to have a linearity with a deviation smaller than 6 %, and a uniform sensitivity better than 1%. These parameters will be used as basic inputs in the analysis of data to be taken by the camera.