

[GC-20] Gas and Stellar Kinematics of 9 Pseudo Bulge Galaxies

Kooksup Jo & Jong-Hak Woo
Seoul National University

We present the spatially resolved kinematics of ionized gas and stars along the major axis of 9 pseudo bulge galaxies. Using the high quality long-slit spectra obtained with the FOCAS at the Subaru telescope, we measured the flux, velocity, and velocity dispersion of the [OIII] and $H\beta$ lines to determine the size of the narrow-line region, rotation curve, and the radial profile of velocity dispersions. We compare ionized gas kinematics and stellar kinematics to investigate whether ionized gas shows any signs of outflows and whether stars and ionized gas show the same sigma-dip feature (i.e., decrease of velocity dispersion) at the very center.

[GC-21] Hubble Space Telescope's Near-IR and Optical Photometry of Globular Cluster Systems in the Fornax and Virgo Clusters of Galaxies

Hyejeon Cho¹, John P. Blakeslee², and Young-Wook Lee¹

¹*Department of Astronomy and Center for Galaxy Evolution Research, Yonsei University, Korea,* ²*Herzberg Institute of Astrophysics, National Research Council of Canada (NRC-HIA), Canada*

We present space-based near-IR (NIR) and optical photometry of globular clusters (GCs) of 16 early-type galaxies in the Fornax and Virgo Clusters. The NIR imaging data for the nearby galaxies was acquired with the IR Channel of the Wide Field Camera 3 (WFC3/IR) in the F110W (J_{110}) and F160W (H_{160}) bandpasses. We introduce the full sample of our WFC3/IR program, describe data reductions and photometric measurements including GC candidate selection criteria, and then show selected GCs' color-magnitude diagrams. The tilted features in the diagrams related to the morphological types of host galaxies are discussed in the context of galaxy formation and evolution histories. Combining F475W (g_{475}) and F850LP (z_{850}) data taken from the Advanced Camera for Surveys Virgo and Fornax Cluster Surveys with our NIR data, we investigate the bimodality in optical-NIR color distribution and the nonlinear feature of the optical-NIR color relation as a function of optical color for these extragalactic GC systems.