Near Infrared CMDs of M22

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We present the near infrared CMDs of galactic globular cluster M22. The JHK, 2.2μm continnum, and CO images of M22 were obtained by using the CFHTIR camera during the June 2001 CFHT observing run. The image quality was 0.7 arcsec in all filters. The CMDs show modest (a few hundredths of a mag) scatter, and extend to the main sequence turn-off. A key part of this infrared CMDs investigation is the use of the metallicity sensitive 2.3μm CO index to identify bulge stars that, if not removed from the data, will bias metallicity and distance estimates. The slope of the red giant branch and the brightness of the RGB-bump of the infrared CMDs will be used to determine more accurate metallicity and distance of the cluster.

Tidal Tails around the Young Globular Clusters Pal 3 and Pal 4

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We have investigated the spatial extent and structure of the remote young Galactic globular clusters (GCs) Pal 3 and Pal 4 using deep wide-field VI CCD photometry. Observations were made with CFH12K at the prime focus of the CFH 3.5m telescope. Our study covers a total area of 1.65 and 1.32 square degrees around the center of the Pal 3 and Pal 4, respectively, and reaches three magnitudes below the horizontal branch (V ~ 25). We searched for the evidence of the existence of tidal debris which were found in some GCs due to tidal interactions with the Galactic plane in the form of large and extended deformation. We have found a hint of tidal tails around these two GCs from the spatial distribution of red giant-branch, red horizontal-branch, and subgiant branch stars and their luminosity functions. The orientation of the tails can provide an important key for the determination of the cluster's Galactic orbit.