

교 분석함으로써 조선왕조실록에 기재된 혜성 관측 자료의 사실성과 독자성을 판별하고 그에 대한 천문학적 의의를 살펴본다.

Washington CCD Photometry of The Bulge Globular Cluster NGC6624

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We present Washington CCD photometry of NGC 6624 which lies in the very central region of the Galaxy. The color-magnitude diagram of this cluster shows clumpy red horizontal branch and well defined gently-sloping giant branch, and the color-magnitude diagram of the nearby comparison field shows the bulge and disk populations.

We have estimated the metallicities of the cluster giants using the two-color diagrams, obtaining a value for the mean metallicity of $[Fe/H] = -0.56 \pm 0.14$ dex.

The distance of NGC 6624 is determined using the HB brightness of NGC 6624, which is $T_1(HB) = 15.51 \pm 0.10$ ($V(HB) = 16.09 \pm 0.10$). The absolute HB magnitude of NGC 6624 is estimated using the calibration $M_V(RR) = 0.82 \pm 0.17 [Fe/H]$, to be $M_V(RR) = 0.72$. Assuming $E(B-V) = 0.26$, the distance modulus of NGC 6624 is derived to be $(m-M)_0 = 14.51 \pm 0.12$ ($d = 8.09 \pm 0.37$ kpc) and the corresponding galactocentric distance is $R_{GC} = 1.27$ kpc. The metallicity of NGC 6624 we derived is consistent with the $[Fe/H]-R_{GC}$ relations of the globular clusters in our Galaxy.

Fitting the isochrone to the HST data obtained by Sosin & King [1995, AJ, 109, 639], we estimate the age of NGC 6624 to be $t = 13 \pm 2$ Gyrs. This value is much smaller than the estimate by Richtler et al [1994, A&A, 290, 412], 18 Gyrs. The difference between these two estimates appears to be primarily due to the different metallicities used in the two studies. The age of 13 Gyrs we derived here is smaller to those of other bulge globular clusters (NGC 6553, NGC 5927).

On the Profiles and the Polarization of Raman Scattered Emission Lines in Symbiotic Stars

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A Monte Carlo method is used to calculate the profiles and the polarization of the Raman scattered O VI lines ($\lambda \lambda 6827, 7088$) in symbiotic stars, which are believed to be a binary