

than the known heating rates near and just above the homopause. It is suggested that a thermospheric wind of 1 km/sec could supply the required heating around 10 microbar via Joule heating.

Blueshift Features Seen in S VI 933 and H I 931 Lines

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We present observational characteristics of blueshift features seen in H I 931 and S VI 933 lines. These lines were taken with spatial resolutions of $1.2''$ across the slit and $2''$ along the slit. The data cover a quiet region with an area of $100'' \times 100''$ located near the disk center. The integration time of 110 seconds was taken to ensure good count statistics. The spatial extent of the blueshift features is found to be about $2''$. A total of 5 events was detected with significant blueshifts in 110 seconds which yields a birthrate of the blueshift features of $10^{-21} \text{cm}^{-2} \text{s}^{-1}$.

Highly broadened S VI 933 lines observed during the event comprise two distinct components, one of which is blueshifted with Doppler shift, ranging from 50 km s^{-1} to 100 km s^{-1} and with line width much larger than the quiet sun average. The redshifted components, however, has Doppler shift and line width, both of which are nearly the same as the quiet sun average.

The H I 931 lines, on the other hand, are found to be easily decomposed into a pair of equally redshifted and blueshifted component, ranging from 10 to 40 km s^{-1} and with line width, nearly identical to the quiet sun average.

These spectroscopic characteristics strongly suggest that the blueshift features may have been driven from the lower transition region and below where H I Lyman lines are formed.

조선왕조실록에 기재된 200년(1392년-1607년)

동안의 혜성 관측 기록

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조선왕조실록에 기재된 태조 원년(1392년)부터 선조 말(1607)까지의 혜성 관측 기록을 조사하였다. 이 기록을 중국고대천상기록총집과 천문 소프트웨어 DANCE에 수록되어있는 혜성 자료와 비

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