

A NEW SAMPLE OF FAINT HALO B STARS

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1. Summary

This poster reports the isolation of a new, complete sample of 24 faint halo B stars. These B stars were selected as blue- and ultraviolet-excess objects in the US survey at high Galactic latitudes (Usher and Mitchell 1990), and were given preliminary classifications using low-resolution spectrophotometry. The new sample is complete over 206 square degrees of sky to faint magnitude completeness limits in the range $B = 16.5$ and $B = 18.3$.

Stromgren color indices for the US B stars have been derived from the spectrophotometry through numerically convolved filters (Howell 1986). The colors have been used to help define the red completeness limit of the sample at $(b - y) = -0.01$, at the B9.5/A0 classification boundary. In addition, surface gravity and temperature estimates useful for separating the hotter B stars from sdB stars have been provided by atmospheric model fitting to the existing spectra (cf. Saffer *et al.* 1994).

References

- Howell, S.B. (1986) *Astronomical Journal*, **91**, 171.
Saffer, R.A. *et al.* (1994) *Astrophysical Journal*, **432**, 351.
Usher, P.D. and Mitchell, K.J. (1990) *Astrophysical Journal Supplement*, **74**, 885.