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HS AURIGAE

Detached main-sequence eclipsing binaries of type later than the sun are very rare among known systems, nearly all the later type detached binaries being subgiants of the kind listed in IBVS 1083. The only detached system with main-sequence components later than the sun that has been analyzed is YY Gem (M1).

Spectrograms of the 10th magnitude eclipsing binary HS Aur obtained at the Lick Observatory show this system to consist of two similar stars of type G8V. HS Aur had been classified as a G star by Götz and Wenzel (1962) and by McDonald (1964). The period is $9^d.8$ rather than the GCVS value of $4^d.9$, so that the two minima of the light curve must be of approximately equal depth. Emission lines of Ca^+ are not present in the spectrum. Young and Koniges (1976) have shown that emission is usually absent in main-sequence systems with periods as long as 10 days.

The principal purpose of this note is to call attention to the importance of obtaining a definitive photoelectric light curve of HS Aur on a standard color system. A complete analysis of the combined photometric and spectrographic observations should give a fundamental set of stellar parameters in a region of the H-R diagram heretofore provided definitely only by the more massive components of the visual binaries ξ Boo and 70 Oph.

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