

THE PARALLAXES OF U GEM VARIABLES

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An Allegheny parallax series of SS Cyg, consisting of 52 exposures obtained on 15 nights, was recently measured on the PDS microphotometer at the David Dunlap Observatory, and a value of $+0''.022 \pm 0''.006$ (m.e.) derived for the absolute parallax. This is close to the mean of the two previous discordant measures for this star given in the table below. The weighted mean of the three determinations implies that the absolute magnitude, at quiescent phase, of the star is between 7.0 and 9.0 formally at a 90% confidence level. Recent parallax determinations made at Lick by Vasilevskis et al. (1975) for three other stars, listed below along with the Mt. Wilson value for U Gem, imply even fainter absolute magnitudes.

SS Cyg	$0''.019 \pm 0''.005$	M=8.2	from	$-0''.012 \pm 0''.012$	(Mt. Wilson)
				0.032 ± 0.010	(Yerkes)
				0.022 ± 0.006	(Allegheny)
U Gem	0.007 ± 0.004	M=8.6	from	0.012 ± 0.010	(Mt. Wilson)
				0.006 ± 0.005	(Lick)
SS Aur	0.010 ± 0.004	M=9.8			(Lick)
EQ Mon	0.015 ± 0.006	M=11.5			(Lick)

Individually, all of these determinations are quite weak due to the small values involved but, collectively, they imply that the U Gem stars are at least as faint as the value $M_v = +7.5$ found by Kraft and Luyten (1965) from a secular parallax solution.

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REFERENCES

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Vasilevskis, S., Harlan, E.A., Klemola, A.R., and Wirtanen, C.A. 1975, *Publ. Lick Obs.*, 23, part V