are being determined. For 99 Herculis, 55 plates have been taken on 48 nights with the 40-inch Yerkes refractor during the past thirty years. From these plates a parallax of $^{\circ}.066 \pm ^{\circ}.006$ (p.e.) and the mass of the fainter component in terms of the total mass of $.400 \pm .011$ (p.e.) have been determined.

These results agree closely with results obtained recently at the Sproul Observatory. If we combine the latest available data for this system we find that the brighter component of spectral class F8 has an absolute visual magnitude of 4.25 and a mass of .83 that of the sun. This indicates that the brighter component is less luminous and less massive than a star of the same spectral class belonging to the main sequence. For the fainter component no spectrum is available and while its luminosity is still somewhat uncertain its mass corresponds to a dK5 star.

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Edmondson, Frank K. The galactic rotation effect in tenth magnitude K stars.

Radial velocities of 708 tenth magnitude K stars contained in the McCormick proper motion catalogues have been measured. The majority of the observations have been made with the 82-inch McDonald reflector, and the remainder with the Mount Wilson 60-inch. Of these stars 125 have been observed two or more times. Standard stars have been observed frequently in order to check the systematic accuracy of the velocities.

The present paper gives first a preliminary discussion of 372 K stars between galactic latitudes $+30^{\circ} 57'$ and $-30^{\circ} 57'$, and between photovisual magnitudes 10.0 and 11.0. Of these 372 stars, 60 are dwarfs and 213 are giants, according to luminosity classifications made by Miss Edith Janssen working under the supervision of Dr. Vyssotsky. Ninety-nine stars are as yet unclassified.

The dwarfs were grouped into 11 normal places, and the giants into 17. Using the unsmoothed normals, separate least-squares solutions were made for solar motion and galactic rotation. The results are shown in Table I, and some of Redman's results are quoted for comparison. It is interesting to note that Redman's giants were no further away than the dwarfs in the present investigation. The negative K-term found by Redman is also found for the giants here, whereas the dwarfs give a positive value.

An absorption of one magnitude per kiloparsec was assumed in estimating the distances, leading to $A = 18.2$ for the giants. R. E. Wilson's discussion gave 17.7 and Vyssotsky's recent value is 19.0.

TABLE I. GALACTIC ROTATION EFFECT FOR K STARS

	Redman D.A.O. vol. 4		Red- man D.A.O. vol. 6	FKE (dwarfs)	FKE (giants)
$\bar{r}$	Sol. 2	Sol. 4	230	200	850
K	-5.9	-5.2	—	+2.9	-5.8
V_o	15.6	(20)	21.5	18.9	20.5
L	(22°)	(22°)	32°	17°	19°
rA	3.8	5.4	1.9	5.6	15.4
l_o	350°	358°	17°	333°	328°

The large velocity dispersion reported at the Madison meeting has been confirmed by the additional data now at hand. Table II gives the results. The dispersions have been computed both with and without the high velocity stars. The figures for all stars, high velocity included, may be compared with the values given at Madison ($\sigma_a = \pm 29.5 \pm 1.7$, $\sigma_b = \pm 27.2 \pm 1.6$, $\sigma_c = \pm 32.1 \pm 2.2$).

The general least-squares solution for the entire group of stars is now being set up, and will be completed as soon as Miss Janssen and Dr. Vyssotsky have finished the luminosity classifications.

TABLE II. VELOCITY DISPERSION FOR TENTH MAGNITUDE K STARS

	a-axis	b-axis	c-axis
Giants	$\pm 29.9 \pm 2.6$ (71)	$\pm 36.3 \pm 5.0$ (29)	$\pm 29.8 \pm 3.2$ (48)
	25.7 2.4 (67)	25.1 3.5 (26)	20.3 2.4 (44)
Dwarfs	$\pm 24.8 \pm 4.5$ (18)	$\pm 31.9 \pm 6.3$ (14)	$\pm 28.4 \pm 3.9$ (30)
			22.0 3.9 (28)
All	$\pm 30.9 \pm 2.2$ (106)	$\pm 28.4 \pm 2.4$ (78)	$\pm 28.5 \pm 2.2$ (91)
	25.2 1.9 (98)	22.4 2.0 (75)	21.5 1.7 (85)

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Eggen, Olin J. Photoelectric magnitudes and colors in the Coma and Hyades clusters.

Photoelectric magnitudes and colors of stars in the Hyades and Coma Berenices clusters have been determined with the Washburn Observatory photomultiplier photometer and recorder. Three control stars, representing the extreme values of the colors of all stars measured, were observed periodically during each run on the clusters, and the extinction factors for both color and magnitude were interpolated for each star from these observed values. Both the colors and