

THE VELOCITY IN THE LINE OF SIGHT OF ϵ LEONIS.

By W. H. WRIGHT.

IN this JOURNAL, **II**, 307, Mr. W. S. Adams announced the variable velocity of ϵ *Leonis* (1900, $\alpha = 9^h 40^m.2$, $\delta = +24^\circ 14'.1$). The announcement was made on the basis of fifteen spectrograms secured with a spectroscope attached to the forty-inch refractor of the Yerkes Observatory.

Below are given the results of the measurements of all the spectrograms of this star obtained with the Mills spectrograph. At the time of receiving Mr. Adams' article the first five had been secured. As they showed no range which might not be due to accidental errors of observation, the remaining three observations were made for the purpose of confirming the variation.

		Gr. M. T.	Velocity	
1897	April 8	16 ^h .3	+5 [*]	
1898	Jan. 26	20 .4	+4.4	
1898	Feb. 3	20 .2	+4.2	
1898	Feb. 8	20 .1	+6.9	
1900	Jan. 16	23 .8	+5.4	
1900	May 24	16 .8	+5.0	
1900	May 28	17 .0	+4.8	
1900	May 30	16 .8	+4.9	

It will be seen that the measurements give no evidence of variable velocity. The agreement of the determinations cannot be due to a purely fortuitous distribution of the observations between two points on the velocity curve having equal velocity, as will be seen by comparing the intervals between epochs of

^{*} Rough measurements of a poor plate, not to be used in the final discussion of the star's motion.

observation with the period which Mr. Adams assigns—two and a quarter days.

LICK OBSERVATORY,
UNIVERSITY OF CALIFORNIA,
June 2, 1900.

NOTE.—In the absence of Mr. Adams, who made the observations and measurements of ϵ *Leonis* during the usual winter vacation of the undersigned, it seems proper that a statement should be given as to the accordance of measures made by Mr. Adams upon spectrum plates of other stars considered to be of uniform radial velocity. As far as known, the instrumental conditions were precisely the same as for the spectrograms of ϵ *Leonis*. The dates are those on which the spectrograms were taken.

γ <i>Andromedae</i> ¹			α <i>Canis Minoris</i>		
1899	Sept. 27	—13.8 km	1899	Nov. 3	—6.9 km
	Nov. 28	—15.1		Nov. 28	—4.2
	Dec. 7	—14.6			
	Dec. 23	—16.9			
α <i>Arietis</i>			γ <i>Leonis</i>		
1899	Oct. 6	—20.5	1899	Dec. 7	—39.2
	Dec. 23	—20.7		Dec. 23	—40.3
ϵ <i>Aurigae</i>			α <i>Lyræ</i>		
1899	Nov. 28	—0.2	1899	Oct. 18	—19.6
	Dec. 6	+0.1		Oct. 18	—18.1
	Dec. 7	+0.3			
			α <i>Ursæ Majoris</i>		
			1899	Dec. 7	—11.5
			1900	Jan. 28	— 9.8

EDWIN B. FROST.

ERRATA.

VOL. XI, April 1900. The formula $m_p = [7.20386]PV^3$, which appears in the text on p. 249, should terminate the second footnote on that page. On p. 250, line 8, of Addendum, for " $m=6$ " read " $m > 6$."