

The direction of the proper motion of Grb 34 as given by PORTER has been corrected by $+^{\circ}4\cdot$ for orbital motion (*A. N.* 4543, 190, 117; 1911) supposing the primary to have double the mass of the secondary.

The motion of α Aquilae has already been compared with that of the Hyades by HERBERT C. WILSON (*Lick Bull.* 214, 7, 64; 1912), but the point of convergence adopted gave too great a difference between calculated and observed direction of the proper motion.

On the motion of the clusters χ and h Persei, by *Ejnar Hertzsprung.*

In *A. J.* 648, 27, 187; 1913 W. S. ADAMS and A. VAN MAANEN have determined the radial velocities of 14 stars in or near the clusters χ and h Persei. They found that 9 out of these 14 stars have radial velocities of about -43 km/s and therefore probably are physically connected. They further state that: „Two of the stars *B. D.* + $56^{\circ}438$ and *B. D.* + $56^{\circ}593$ show rather a large deviation from the mean, but perhaps no larger than might be expected for observations on faint stars having spectra of the type *B 8.*”

Nevertheless it is of interest to see, to which consequences we are lead by supposing that the 9 stars really move parallel to each other and that the discordances found in the radial velocities are due to perspective effect. A least square solution thus gave the following calculated value of the radial velocity in an arbitrary direction

$$V = -299\cdot0 \sin \delta + 604\cdot9 \cos \delta \cos \alpha - 240\cdot7 \cos \delta \sin \alpha \text{ km/s} = C_2$$

corresponding to a total motion of about 700 km/s in the direction $22\frac{1}{2}^{\circ}$, $+25^{\circ}$.

There are too few observations to judge of the value of this somewhat improbable result. It may be wholly illusory. But still it contains a strong

TABLE I.

BD	α (1900)			δ (1900)	O	O-43'4	C_2	O- C_2
	o	h	m s					
+ 57 494	2	1	41	+ 57 56'9	-41'1	+ 2'3	-41'3	+ '2
56 438	2	4	31	57 10'4	-36'3	+ 7'1	-38'0	+ 1'7
56 470	2	9	47	56 33'8	-40'2	+ 3'2	-39'4	- '8
56 471	2	9	52	56 35'4	-41'3	+ 2'1	-39'7	-1'6
56 522	2	12	3	56 40'4	-43'1	+ '3	-43'2	+ '1
56 530	2	12	12	56 42'4	-44'6	- 1'2	-43'7	- '9
56 568	2	14	51	56 47'1	-47'4 *)	- 4'0	-47'7	+ '3
56 593	2	15	55	56 55'8	-51'4	- 8'0	-50'3	-1'1
55 612	2	18	12	56 9'4	-44'8	- 1'4	-46'9	+ 2'1

invitation to take the question up for further investigation, because, as shown in Table I, the supposition that all the 9 radial velocities ought to be equal

*) Mean with PLASKETT'S value.

gives $19\cdot2 = (\pm 4\cdot4 \text{ km/s})^2$ for the mean square of $O-C$, while this square is reduced to $2\cdot1 = (\pm 1\cdot45 \text{ km/s})^2$ when perspective effect is assumed.

TABLE 2.

BD	α (1900)	δ (1900)	vis. mag.	spectrum H.D.
+ 56 ^o 424	h m	o ' "	m	B 8 ac
58 397	1 59'4	2 6'0	8'0	A 2 ac
57 519	2 6'0	58 20	8'2	A 0 _p c
57 522	6'6	58 6	6'50	B 9
57 526	7'9	58 1	7'65	A 0 _p c
56 475	8'9	57 50	7'8	B 2 _p c
56 478	10'0	56 15	7'7	B 8 c?
55 588	10'2	56 19	8'9	B 9 _p c
56 591	13'8	55 27	6'84	A 0 c?
54 539	15'8	56 47	7'46	B 9
56 621	18'3	54 48	7'51	A 0 ac
57 568	19'2	56 47	7'42	B 1 c?
57 576	19'6	57 14	7'32	A 2 _p c
57 582	22'8	57 22	7'30	B 3
57 594	24'6	57 15	7'20	A 0 _p ac
59 535	28'9	57 38	7'98	B 9 _p c
57 634	36'3	59 24	7'71	B c
	40'0	57 15	8'0	

Table 2 contains a list of 17 stars recommended in this connection for determination of their radial velocities. If e.g. the star *B. D.* + $57^{\circ}568$ to the north-east of χ and h Persei proves to have a radial velocity about 10 km/s more negative than the mean of the 9 stars (i. e. of about -53 km/s) then the probability that the stars belonging to the clusters show appreciable perspective change in radial velocity is considerably increased. Similarly the star *B. D.* + $56^{\circ}424$ should have a radial velocity about 10 km/s more positive than the mean (i. e. of about -33 km/s).

Finally attention may be called to the following 3 stars of similar peculiar spectrum, viz. *B 5p* with narrow lines, lying within 1° from each other and about 7° from χ and h Persei:

B. D.	α (1900)	δ (1900)	vis. magn.
+ 63 ^o 274	h m	m	m
+ 63 ^o 310	1 55'6	+ 63 ^o 54'	5'62
+ 63 ^o 315	2 7'6	63 34	8'0
	2 11'1	63 58	7'05