luminous lines, but I had to open the jaws a good deal to get what I could see at first, and, consequently, the lines would be diffused somewhat, still I think I should have seen them. The prominence I examined was a very high narrow one, almost to my eye like a bit of the Sun through a chink in brightness and colour (I could see no tinge of colour), and somewhat zigzagged like a flash of lightning. It must have been three minutes high, for it was on the preceding side of the Sun near the vertex, and was a marked object, both in the last photo-plate just before the Sun reappeared, and to the eye.

"Captain Branfill saw the prominences coloured, as did two other gentlemen, but one in my Observatory (like myself) only saw it white. I should, however, say that for long I never saw *α Orionis* markedly red, nor *Antares*, and I may not catch red soon, though I cannot conceive this being so.

"In conclusion, I may note that the darkness was very slight, and the colour not half so gloomy as in the eclipse of 1857, which was partial at Delhi, where I was then."

On the Cluster in Perseus. By Dr. O. Pihl.

I have the honour of laying before the Society the results of a micrometric examination of the Stellar Cluster in *Perseus*, commonly designated 65 *Bode* or 34 *Messier*, which I have been prosecuting since the year 1860, with a view to obtain, within comparatively small probable errors, a mensuration of all the more conspicuous stars, sufficiently exact to serve as a basis for investigating, at some remote date, the mechanism of the system.

The instrument employed is a Refractor, with $3\frac{1}{4}$ inch aperture, by H. Krog, of Bergen, equatoreally mounted by Lohmeyer of Hamburg. Owing to the stars under examination, with three or four exceptions, being of a magnitude too low for the employment of a wire-micrometer with illuminated field, and the instrument not being provided with an arrangement for the illumination of the wires upon a dark field, I have been reduced to the exclusive use of bar-micrometers (Boguslawski's), with magnifying powers of 40 and 120, and to a ring-micrometer, with a magnifying power of 40; the latter, however, has been used to a less extent.

All the measurements have been referred to one particular star (No. 25 in the list) on the southern side of the group; the *absolute* position of which, as well as that of the secondary star (No. 33) on the northern side, required for using the Boguslawski micrometer, has been determined by recent observations by Argelander and Fearnley, as also by myself.

From these two fundamental stars a triangulation of the whole group has been performed, principally with the bar-micrometer, and in effecting this I have, for convenience, in addition to the

two above-named stars, employed nineteen others, partly for obtaining the Right Ascension and partly for the Declination. These stars have been examined with special care with reference to the two fundamental stars; and the probable error of their positions in that co-ordinate, for the determination of which for other stars they have been employed, does not generally amount to $0''{\cdot}25$ of Great Circle.

A number of observations have been taken with the ring-micrometer, mostly with a specific object in view; for instance, the determination of very small differences in Declination. The total number of stars whose positions have been measured is 85; the probable errors in no case amount to $0''{\cdot}5$ of arc of Great Circle in either co-ordinate; the mean probable error being in R.A. $= 0''{\cdot}298$, and in Decl. $0''{\cdot}309$. The positions in R.A. and in Decl. have in the majority of cases been obtained by separate observations, the number of which, exclusive of those taken for obtaining the absolute positions, is as follows:—For R.A. 541 sets in all, or 65 on an average for each star; for Decl. 461 sets in all, or 5·5 on an average for each star; but of the latter observations, 418 have been taken with the bar-micrometer, and with that number of sets in either of the two opposite oblique positions of the bar. Each set consists, in the majority of cases, of from six to eight passages across the field.

So large a number of observations was necessary in order to ensure the accuracy required, more especially as the limited size of the instrument and the nature of the micrometers employed are not favourable for obtaining exact results with but few observations.

Having no Meridian Circle at my disposal, I have had to adopt a circuitous and somewhat laborious method for determining the absolute position of the group, and for that purpose resorted to γ *Andromedæ*, the position and proper motion of which have been closely determined by several of the most distinguished of modern astronomers;* this star, at a distance of about 38^m preceding the centre of the group, having a Declination of about $30'$ of arc south of two of the larger stars in the system.

By means of the ring-micrometer (with a mean radius of $1023''{\cdot}79$) the Declination of these two stars, with reference to γ *Andromedæ*, was found by eleven passages of each. The Right Ascension of three other stars, more favourably situated for that purpose than the two above-named, was determined, on an average, by eight passages of each.

However, being sensible of the numerous chances of error in this mode of determining the position with comparative exactness, I applied to my friend, Professor Fearnley, Director of the Royal Observatory, Christiania, who, by means of the Meridian Circle, kindly obtained the positions of two of the northern, and two of

* Mädler: "Der Fixsternhimmel," p. 23.

the southern, stars, including the two fundamental stars (Nos. 25 and 33), referred to above.

Having noticed in the *Astronomische Beobachtungen* of the Bonn Observatory, that three of the northern stars in the group had been measured by the Meridian Circle of that establishment, among which were the two observed by Professor Fearnley, I wrote to Professor Argelander, who most obligingly furnished me with his positions, as also with the Right Ascension of two other stars. On my own measurements of Right Ascension of the above three stars, by means of γ *Andromedæ*, whose position had been determined with a probable error of $0^s{\cdot}023$, I felt safe in placing a considerable degree of reliance; and as Argelander's and Fearnley's positions, in that co-ordinate, of one of the two stars obtained by both, did not agree very well, whereas my positions, both for this star and for the second measured by those astronomers, — and with regard to which they agree closely, — was not far from the mean of their results ($0^s{\cdot}094$ and $0^s{\cdot}058$ respectively), I have felt justified in using my own results, as well as those of Argelander and Fearnley, for finally determining the absolute Right Ascension.

But in finding the absolute Declination, I have totally rejected my own results, determined by γ *Andromedæ*, which, however, within $2''$ agree with the mean of Argelander and Fearnley's positions: for in this co-ordinate two causes of error are present which cannot be eliminated, viz., the error arising from the error in value of the dimensions of the ring of the micrometer, and the error to be anticipated from the vast difference between the intensity of light in γ *Andromedæ* and of the stars compared with it, — an error which, with so large a difference in Declination, could not be neutralised by measuring the pairs of stars in the upper and lower part of the ring alternately.

By combining Argelander's and Fearnley's results with my own, the ultimate value obtained in Right Ascension varies in four stars from $+0^s{\cdot}219$ to $+0^s{\cdot}328$, and in one (No. 33) the difference is $-0^s{\cdot}011$ from those of Argelander's. It may, however, be observed, that the first four of these stars have been observed by Argelander only on one evening, and upon only one to three wires, whereas the last has been observed on two occasions, and, on one of these, upon seven wires. On the other hand, the above ultimate value varies from $-0^s{\cdot}105$ to $-0^s{\cdot}247$ from Fearnley's Right Ascensions.

By combining the positions in Declination of the four stars measured by Fearnley, and of the two by Argelander, with my own *relative* positions of these stars, the resulting values vary from $+0''{\cdot}50$ to $-1''{\cdot}30$ from Fearnley's, and are $+0''{\cdot}08$ and $2''{\cdot}28$, respectively, at variance with Argelander's positions; the former difference being for the star No. 33, observed by Argelander with the four microscopes, whereas the latter was observed with only one.

The main object of my investigation being to determine the

relative positions of the individual stars, they have all, as previously observed, been referred to a single star (No. 25) in the southern part of the group.

In the following Catalogue the positions with respect to that star are, therefore, given,—in R.A. in seconds of time, and in Decl. in seconds of arc,—but separate columns also contain the absolute positions.

The Probable Error of each position is specified: with regard to R.A. this error is expressed in time, and in an adjacent column reduced to arcs of Great Circle.

In the calculation of the Probable Errors, due reference has been paid to the relative value of each observation entering into the calculation; the formula employed being

$$\text{P. E.} = 0{\cdot}67449 \sqrt{\frac{n \Sigma \Delta^2}{(n-1)\left(\frac{1}{p_1}+\frac{1}{p_1} \cdot\cdot \frac{1}{p^n}\right)(p_1 + p_2 \cdots p_n)}},$$

or, for sets with each observation of equal value, the reduced form,

$$\text{P. E.} = 0{\cdot}67449 \sqrt{\frac{\Sigma \Delta^2}{n(n-1)}},$$

n denoting the number of observations, and $p_1\ p_2 \cdots p_{n_2}$ the relative values of the separate observations entering into the calculation.

The constants employed for the calculation of Precession are those of Bessel.

With regard to the magnitude of the stars, I have endeavoured to express them according to Argelander's standard.

The Positions of Bessel in the last column of the Table are reduced from those given in the *Königsberger Beobachtungen*, vol. xvii.: for Zone 529, the corrections given in Cat. II. by Weisse, have been taken into account. It will be observed, that these positions, and specially the positions *inter se* of these seven stars of Bessel's, are, within amounts not altogether slight, at variance with those I have found to exist at the present time. I am aware that it would be premature to conclude from these differences any proper motions of the stars; but, at the same time, the differences are, no doubt, large enough to deserve special notice. In Declination, for instance, Bessel's position for No. 12 differs $-9''{\cdot}67$ from mine; for No. 25 $-2''{\cdot}01$; for No. 60 $+2''{\cdot}41$; for No. 82 $-7''{\cdot}04$, &c. Bessel's difference in Declination between No. 12 and No. 60 is, therefore, upwards of $12''$, and between No. 60 and No. 82, about $9''{\cdot}5$ at variance with mine,—differences which appear somewhat suspicious. They are, undoubtedly, very large, if supposed to arise merely from errors in observation,—considering that Bessel's mean Probable Errors in Declination in his Zone Observations are, so far as I am aware, only about $1''{\cdot}5$, and that the mean Probable Error in my ob-

servations of these stars is only 0″·21. It might be inferred that, as Bessel's Declinations are, in all cases but one,— namely, in that of No. 60, more southerly than those obtained by means of Argelander and Fearnley's Meridian Observations,— the exception, as regards No. 60, may be owing to an error in the reading off of the Declination of that star,— a supposition which the Declination given by Lalande would seem to corroborate. But, on the other hand, it may be remarked that Bessel has measured Nos. 25 and 60 on the same evening, and, consequently, the one immediately after the other, and that yet he has placed No. 60 3″·30 *north* of No. 25; while now it is, according to my measurement, 0″·93, and, according to Fearnley, even 2″·75 *south* of it. Now, if the probable error of a single star in Bessel's Zone Observations is in Decl. = 1″·5, the mean probable error of the above seven stars would be 0″·6. But the mean Declination of Bessel's seven stars is 4″·27 south of the mean Declination now determined. Is it probable that this difference is owing merely to errors in observation, or to errors in the constants, notwithstanding Weisse's revision of Bessel's Tables of Reduction, and to no physical change? Of course this cannot now be answered; but I trust that the examination, the results of which are contained in the preceding Catalogue, may, on some future investigation, be the means of successfully solving the problem, as regards the mutual proper motions of the stars in this extensive system.

On the Plate representing the group, I have, in addition to the stars measured, marked all other stars (117 in number), which, under the most favourable circumstances, can be seen or sighted in my instrument. Their positions have no claim to accuracy beyond that of careful sketches. The 85 stars numbered on the plate have alone been measured and laid down accordingly.

Tulliubjerget, Christiania, June 26, 1868.

No.	Mag.	Right Ascension. No. of Obs.	Mean R.A. 1865·0.	R.A. refer. to No 25.	Prob. Error. Secs. of Time.	Secs. of Gt. Circ.	Yearly Precession. 1865·0.	Secul. Change.	Declination. No. of Obs.	Mean Decl. 1865 0.
			h m s		s	″	s	s		° ′ ″
1	10.4	7	2 31 50·286	−62·682	0·041	0·46	3·8172	+0·0396	4	42 13 26·20
2	9.9	6	56·069	56·899	·039	·43	·8181	·0396	4	42 14 36·90
3	10.4	4	59·086	53·882	·027	·30	·8192	·0396	6	42 16 35·73
4	10.1	4	32 10·725	42·243	·018	·20	·8162	·0397	4	42 7 59·28
5	9.8	4	11·886	41·082	·024	·27	·8222	·0398	4	42 21 36·72
6	10.7	5	13·974	38·994	·026	·29	·8158	·0395	4	42 6 39·84
7	8.8	8	19·383	33·585	·020	·23	·8209	·0397	6	42 17 21·12
8	10.3	4	19·813	33·155	·022	·25	·8196	·0396	4	42 14 23·34
9	8.7	9	22·844	30·124	·020	·23	·8221	·0398	5	42 19 25·98
10	9·7	4	24·871	28·097	·015	·17	·8241	·0399	5	42 23 46·18
11	10.0	5	27·534	25·434	·039	·43	·8161	·0394	4	42 5 5·09

No.	Mag.	No. of Obs.	Right Ascension. Mean R.A 1865·0.	R.A. refer. to No. 25.	Prob. Error. Secs. of Time.	Secs. of Gt. Circ.	Yearly Precession. 1865·0	Secul. Change.	Declination. No. of Obs.	Mean Decl. 1865·0.
			h m s	s	s	″	s	s		° ′ ″
12	8.7	18	2 32 32·123	−20·845	0·014	0·16	3·8168	+0·0394	7	42 5 46·83
13	10.7	4	34·017	18·951	·018	·20	·8252	·0399	4	42 24 47·47
14	10.7	6	34·329	18·639	·043	·48	·8248	·0399	4	42 23 52·69
15	10.5	4	37·448	15·520	·020	·23	·8251	·0399	7	42 23 59·74
16	9.5	6	38·312	14·656	·032	·36	·8184	·0395	6	42 8 38·24
17	10.7	4	40·601	12·367	·019	·22	·8258	·0399	6	42 25 4·02
18	9.3	7	41·075	11·893	·021	·24	·8226	·0397	5	42 17 47·81
19	10.5	4	41·392	11·576	·018	·21	·8211	·0396	4	42 14 13·07
20	10.7	5	43·664	9·304	·041	·46	·8254	·0398	4	42 23 43·36
21	10.4	4	44·106	8·862	·023	·26	·8141	·0392	5	41 57 37·58
22	9.4	4	44·486	8·482	·016	·18	·8213	·0396	4	42 14 12·17
23	9.4	4	45·978	6·990	·022	·25	·8220	·0396	4	42 15 41·94
24	9.9	8	50·211	2·757	·034	·38	·8149	·0392	4	41 58 45·01
25	8.0	...	52·968	0·000	...	...	·8160	·0393	...	42 0 45·47
26	9.3	4	59·345	+6·377	·027	·30	·8273	·0399	4	42 25 28·01
27	9.4	6	59.695	6·727	·021	·24	·8240	·0397	7	42 17 55·06
28	10.0	5	33 0·820	7 852	·042	·47	·8195	·0395	5	42 7 29·99
29	9.6	4	1·897	8·929	·017	·19	·8213	·0396	5	42 11 29·00
30	10.2	7	7·743	14·775	·033	·37	·8201	·0395	5	42 8 6·28
31	8.3	18	8·780	15·812	·015	·17	·8218	·0396	10	42 11 26·20
32	10.6	4	10.974	18·006	·029	·33	·8243	·0397	5	42 16 48·47
33	7.8	...	14·345	21·377	...	...	·8284	·0399	...	42 25 36·01
34	10.1	5	15·326	22·358	·022	·25	·8196	·0394	5	42 5 33·85
35	8.0	4	16·896	23·928	·013	·15	·8229	·0396	8	42 12 35·76
36	8.0	20	18·637	25·669	015	·17	·8230	·0396	5	42 12 43·60
37	10.2	5	19·779	26·811	·038	·42	·8195	·0394	4	42 4 29·36
38	8.9	6	22·090	29·122	·030	·33	·8221	·0395	5	42 10 7·27
39	10.4	5	23·773	30·805	·031	·34	·8161	·0392	4	41 56 8·23
40	9.2	11	25·007	32·039	·029	·32	·8171	·0392	9	41 58 0·42
41	7.7	10	26·080	33·112	·013	·15	·8213	·0395	13	42 7 39·70
42	9.8	4	26·755	33·787	·032	·35	·8229	·0395	5	42 11 10·52
43	8.8	6	30·434	37·466	·023	·26	·8249	·0396	8	42 15 11·04
44	10.3	5	30·660	37·692	·035	·39	·8228	·0395	4	42 10 25·06
45	9.3	9	32·355	39·387	·028	·31	·8238	·0396	4	42 12 26·87
46	8.7	6	33·330	40·362	·030	·33	·8228	·0395	7	42 10 2·33
47	7.7	12	33·487	40·519	·012	·14	·8216	·0395	12	42 7 11·67
48	8.3	7	33·590	40·622	·025	·28	·8237	·0396	5	42 11 55·33
49	10.2	5	33·809	40·841	·024	·27	·8196	·0393	4	42 2 30·64
50	8.6	4	34·085	41·117	·028	·31	·8260	·0397	6	42 17 12·91
51	9.3	7	34·181	41·213	·037	·41	·8264	·0397	7	42 17 4·96
52	10.3	5	36·532	43·564	·043	·48	·8266	·0397	4	42 18 1·07
53	10.4	6	37·863	44·895	·031	·34	·8193	·0393	4	42 1 19·71

No.	Mag.	No. of Obs.	Right Ascension. Mean R.A. 1865·0	R.A. refer. to No. 25.	Prob. Error. Secs. of Time.	Secs. of Gt. Circ.	Yearly Precession. 1865·0	Secul. Change.	Declination. No. of Obs.	Mean Decl. 1865·0.
			h m s		s	″	s	s		° ′ ″
54	8.3	6	2 33 42·248	−49·280	0·028	0·31	3·8237	+0·0395	7	42 10 51·93
55	10·2	5	43·564	50·596	·038	·42	·8197	·0393	4	42 1 16·17
56	8.4	9	47·272	54·304	·019	·22	·8241	·0395	6	42 10 45·66
57	10.2	6	50·397	57·429	·021	·24	·8202	·0393	5	42 1 19·84
58	9·3	5	50.576	57·608	·025	·28	·8300	·0398	4	42 23 35·67
59	10.3	7	54·887	61·919	·037	·41	·8244	·0395	4	42 10 ·04
60	7.2	11	55·659	62·691	·020	·23	·8203	·0393	18	42 0 44·55
61	9.4	4	56·031	63·063	·023	·26	·8288	·0397	4	42 20 5·37
62	10.2	5	58·912	65·944	·032	·35	·8268	·0396	4	42 15 5·63
63	10.4	6	34 4·415	71·447	·037	·41	·8270	·0396	8	42 14 46·39
64	7.9	12	5·362	72·394	·019	·22	·8270	·0396	8	42 14 31·39
65	10.1	5	5·643	72·675	·030	·33	·8239	·0394	6	42 7 16·80
66	9.9	6	8·012	75·044	·027	·30	·8235	·0394	5	42 6 6·00
67	10.2	6	11·328	78·360	·024	·27	·8211	·0393	5	42 0 11·09
68	10.3	6	11·547	78·579	·035	·39	·8249	·0395	4	42 8 47·03
69	9.5	5	12·381	79·413	·032	·35	·8220	·0393	4	42 2 3·63
70	10.6	4	13·592	80·624	·011	·13	·8208	·0393	6	41 59 10·01
71	10.0	7	15·761	82·793	·035	·39	·8277	·0396	5	42 14 27·08
72	9.9	4	18·916	85·948	·016	·18	·8299	·0397	4	42 19 2·93
73	8.3	20	20·089	87·121	·015	·17	·8331	·0399	12	42 26 0·83
74	10.6	7	30·646	97·678	·031	·34	·8222	·0393	5	41 59 50·82
75	10.6	7	33·387	100·419	·029	·32	·8233	·0393	5	42 0 40·55
76	9.8	4	34·478	101·510	·010	·12	·8326	·0398	6	42 22 29·63
77	9 8	4	36·242	103·274	·032	·35	·8299	·0396	4	42 16 16·67
78	9.6	5	38·466	105·498	·038	·42	·8285	·0395	4	42 12 46·40
79	10.4	6	38·823	105·855	·030	·33	·8268	·0394	4	42 8 52·13
80	8.7	7	45·071	112·103	·023	·26	·8285	·0395	6	42 11 46·00
81	10.0	5	50·147	117·179	·036	·40	·8295	·0395	5	42 13 8·90
82	8.4	12	52·256	119·288	·025	·28	·8250	·0393	9	42 2 40·22
83	10.0	7	35 1·011	128·043	·036	·40	·8295	·0395	4	42 11 29·25
84	10.7	4	5·836	132·868	·027	·30	·8300	·0395	4	42 11 58·55
85	10.3	6	2 35 19·026	−146·058	0·039	0·43	3·8314	+0·0395	4	42 12 48·52

No.	Decl. refer. to No. 25.	Prob. Error.	Yearly Precession. 1865·0.	Secul. Change.	Positions found by other Observers reduced to 1865·0. Mean R.A.	Mean Decl.
	″	″	″	″	h m s	″ ′ ″
1	+ 760·73	0·24	15·811	−0·350		
2	+ 831·43	·31	·806	·350		
3	+ 950·29	·46	·803	·350		
4	+ 433·81	·44	·793	·351		
5	+ 1251·25	·21	·792	·351		
6	+ 354·37	·41	·790	·351		

No.	Decl. refer. to No 25.	Prob. Error.	Yearly Precession. 1865·0	Secul. Change.	Positions found by other Observers reduced to 1865·0. Mean R.A.	Mean Decl.	
	″	″	″	″	h m s	° ′ ″	
7	+ 995·65	0·13	15·785	−0·351	2 32 19·109	..	Argelander 1860·9
8	+ 817·87	·34	·784	·351			
9	+1120·51	·21	·782	·351	2 32 22·571	42 19 23·70	Argelander 1860·9
10	+1380·71	·42	·779	·351			
11	+ 259·62	·17	·777	·351			
12	+ 301·36	·30	·774	·351	2 32 32·076	42 5 37·16	Bessel 1831·9
13	+1442·00	·39	·772	·351			
14	+1387·22	·09	·771	·352			
15	+1394·27	·42	·769	·352			
16	+ 472·77	·36	·767	·352			
17	+1458·55	·41	·766	·352			
18	+1022·34	·24	·765	·352	2 32 40·856	...	Argelander 1860·9
19	+ 807·60	·26	·765	·352			
20	+1377·89	·43	·763	·352			
21	− 187·89	·48	·762	·352			
22	+ 806·70	·29	·762	·352			
23	+ 896·47	·22	·761	·352			
24	− 120·46	·35	·757	·352			
25	0·00	...	·754	·352	2 32 53·044	42 0 43·46	Bessel 1831·9
					2 32 53·215	42 0 46·77	Fearnley 1865·1
26	+1482·54	·39	·749	·352			
27	+1029·59	·36	·748	·352			
28	+ 404·52	·22	·747	·352			
29	+ 643·53	·34	·746	·352			
30	+ 440·81	·33	·741	·353			
31	+ 640·73	·23	·740	·353			
32	+ 963·00	·31	·738	·353			
33	+1490·54	...	·735	·353	2 33 14·356	42 25 35·93	Arg.1860·9&1861·1
					2 33 14·450	42 25 36·40	Fearnley 1865·1
34	+ 288·38	·30	·734	·353			
35	+ 710·29	·28	·732	·353	2 33 17·070	42 12 30·98	Bessel 1831·9
36	+ 718·13	·32	·731	·353	2 33 18·358	42 12 38·44	Bessel 1831·9
37	+ 223·89	·20	·729	·353			
38	+ 561·80	·28	·728	·353			
39	− 277·24	·40	·727	·353			
40	− 165·05	·17	·725	·353			
41	+ 414·23	·18	·724	·353	2 33 26·236	42 7 36·10	Bessel 1831·9
42	+ 625·05	·34	·724	·353			
43	+ 865·57	·28	·721	·353			
44	+ 579·59	·45	·720	·354			
45	+ 701·40	·29	·719	·354			
46	+ 556·86	·31	·718	·354			
47	+ 386·20	·17	·718	·354			
48	+ 669·86	·21	·718	·354			

No.	Decl. refer. to No. 25.	Prob. Error.	Yearly Precession. 1865·0.	Secul. Change.	Positions found by other Observers reduced to 1865·0. Mean R.A.	Mean Decl.	
	′	″	″	′	h m s	″ ′ ′	
49	+ 105·17	0·18	15·717	−0·354			
50	+ 987·44	·40	·717	·354			
51	+1039·49	·38	·717	·354			
52	+1035·60	·41	·715	·354			
53	+ 34·24	·41	·714	·354			
54	+ 606·46	·34	·711	·354			
55	+ 30·70	·45	·708	·354			
56	+ 600·19	·24	·705	·354			
57	+ 34·37	·20	·703	·354			
58	+1370·20	·19	·702	·354			
59	+ 562·57	·35	·698	·354	2 33 55·136	42 0 43·89	Lalande 1790?
60	− 0·92	·10	·698	·354	2 33 56·066	42 0 46·96	Bessel 1831·9
61	+1159·90	·18	·697	·354	2 33 55·860	42 0 44·05	Fearnley 1865·1
62	+ 860·16	·44	·695	·355			
63	+ 840·92	·40	·690	·355			
64	+ 825·92	·20	·689	·355	2 34 3·600	42 14 29·69	Lalande 1790?
65	+ 391·33	·47	·688	·355			
66	+ 320·53	·30	·687	·355			
67	− 34·38	·27	·683	·355			
68	+ 481·56	·37	·683	·355			
69	+ 78·16	·21	·683	·355			
70	− 95·46	·47	·681	·355			
71	+ 821·61	·26	·679	·355			
72	+1097·46	·38	·677	·356			
73	+1515·36	·16	·675	·356	2 34 19·761	(42 25 57·43) computed	Argelander 1861·1
74	− 54·65	·43	·666	·356	2 34 20·230	42 26 1·20	Fearnley 1865·1
75	+ 55·08	·41	·663	·356			
76	+1304·16	·46	·662	·356			
77	+ 931·20	·19	·661	·356			
78	+ 720·93	·15	·659	·356			
79	+ 486·66	·45	·658	·356			
80	+ 660·53	·29	·653	·356			
81	+ 743·43	·20	·648	·357			
82	+ 114·75	·24	·646	·357	2 34 52·444	42 2 33·18	Bessel 1831·9
83	+ 643·78	·45	·638	·357			
84	+ 673·08	·42	·634	·357			
85	+ 723·05	0·27	15·622	−0·358			