

# ASTRONOMISCHE NACHRICHTEN.

Nr. 4242.

Band 177.

18.

## Beobachtungen von Planeten

am Utrechter Refraktor (Öffnung = 26 cm, Fokallänge = 319 cm, Vergr. = 94).

1907	M.Z.Utrecht	$\Delta\alpha$	$\Delta\delta$	Vgl.	$\alpha$ app.	Parall.	$\delta$ app.	Parall.	Red. ad l. app.	*
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### (8) Flora.

Jan.	11	9 <sup>h</sup> 4 <sup>m</sup> 0 <sup>s</sup>	— 0 <sup>m</sup> 45 <sup>s</sup> 67	— 12' 29".9	10,5	7 <sup>h</sup> 39 <sup>m</sup> 1 <sup>s</sup> 47	— 0 <sup>s</sup> 27	+ 21° 43' 48".9	+ 4".7	+ 0 <sup>s</sup> 51	— 6".4	1
	13	7 53 32	— 0 17.81	— 8 8.8	12,6	7 36 45.36	— 0.32	+ 21 56 49.0	+ 5.1	+ 0.55	— 6.4	2
	17	11 56 7	— 0 11.59	— 9 6.0	12,4	7 31 56.42	+ 0.01	+ 22 23 46.8	+ 3.9	+ 0.60	— 6.2	3
	19	11 57 57	— 0 27.94	+ 0 11.9	16,4	7 29 41.43	+ 0.03	+ 22 36 11.3	+ 3.9	+ 0.61	— 6.2	4
	22	11 29 2	— 0 50.40	— 11 6.9	8,4	7 26 26.53	+ 0.01	+ 22 53 58.4	+ 3.8	+ 0.61	— 6.0	5
	23	8 38 17	—	— 6 0.5	—,3	—	—	+ 22 59 4.7	+ 4.2	—	— 6.1	5
	26	7 52 43	— 1 32.38	+ 0 38.8	6,3	7 22 30.26	— 0.25	+ 23 15 32.9	+ 4.3	+ 0.64	— 5.9	6
	30	11 25 32	— 0 9.93	+ 1 1.5	12,4	7 18 39.88	+ 0.06	+ 23 36 46.1	+ 3.6	+ 0.66	— 5.8	7
Febr.	6	12 3 13	+ 0 56.18	— 6 50.1	6,3	7 13 22.24	+ 0.15	+ 24 7 46.0	+ 3.6	+ 0.61	— 5.3	8
	7	12 19 37	+ 0 17.44	— 2 42.1	10,3	7 12 43.50	+ 0.18	+ 24 11 53.9	+ 3.7	+ 0.61	— 5.4	8

### (511) Davida.

Febr.	7	11 46 29	— 0 3.78	+ 2 22.6	28,5	10 0 39.36	9.060 <sub>n</sub>	+ 26 21 24.1	0.593	+ 0.70	— 7.1	9
März	3	9 21 34	— 0 49.05	— 9 38.2	6,3	9 42 6.96	9.235 <sub>n</sub>	+ 29 12 14.0	0.563	+ 0.86	— 4.8	10
	4	9 43 13	— 1 29.74	— 5 31.7	8,3	9 41 26.27	9.106 <sub>n</sub>	+ 29 16 20.7	0.549	+ 0.86	— 4.6	10

### (11) Parthenope.

März	3	10 37 54	+ 1 56.26	— 4 48.4	6,3	10 55 51.15	9.174 <sub>n</sub>	+ 11 31 35.6	0.764	+ 0.87	— 6.7	11
	4	12 38 12	+ 0 57.28	+ 2 42.5	12,3	10 54 52.17	8.677	+ 11 39 6.5	0.739	+ 0.87	— 6.7	11
	5	8 55 12	+ 0 11.37	+ 8 31.6	12,3	10 54 6.26	9.512 <sub>n</sub>	+ 11 44 55.6	0.798	+ 0.87	— 6.7	11
	6	9 20 50	+ 4 22.97	+ 3 34.3	4,2	10 53 11.69	9.370 <sub>n</sub>	+ 11 51 51.0	0.773	+ 0.88	— 6.7	12
	11	9 9 7	+ 3 0.72	— 7 14.6	6,3	10 48 42.08	9.341 <sub>n</sub>	+ 12 24 42.8	0.766	+ 0.91	— 6.8	13
	22	10 14 45	+ 0 12.26	— 2 13.6	16,4	10 39 36.38	8.652 <sub>n</sub>	+ 13 26 50.4	0.740	+ 0.89	— 6.2	14
	24	10 39 3	— 1 15.56	+ 7 8.8	6,2	10 38 8.56	7.971	+ 13 36 12.9	0.738	+ 0.89	— 6.1	14
	31	10 41 10	— 1 55.29	+ 0 20.1	6,3	10 33 42.42	8.809	+ 14 3 23.3	0.736	+ 0.82	— 5.5	15

### (79) Eurynome.

März	4	10 26 0	+ 0 43.60	+ 12 8.4	8,4	11 38 28.57	— 0.13	— 2 16 4.5	+ 4.2	+ 0.89	— 6.1	16
April	2	10 22 25	+ 0 21.95	+ 5 36.4	8,4	11 14 7.10	— 0.01	+ 1 9 29.4	+ 3.9	+ 0.94	— 7.4	17

### (82) Alkmene.

März	6	9 52 13	— 0 9.39	+ 2 38.2	12,3	12 4 46.81	— 0.21	+ 2 27 43.6	+ 5.3	+ 0.85	— 5.8	18
	11	9 35 10	+ 0 18.43	+ 5 46.9	12,3	12 0 44.62	— 0.18	+ 2 47 48.2	+ 5.3	+ 0.93	— 6.1	19
April	2	10 45 25	+ 0 27.68	+ 9 8.3	8,4	11 42 29.30	— 0.02	+ 4 8 31.2	+ 4.9	+ 0.98	— 6.6	20
	4	11 15 3	+ 5 19.93	+ 3 24.7	4,2	11 41 3.98	+ 0.03	+ 4 13 38.3	+ 4.9	+ 0.98	— 6.7	21

### (68) Leto.

März	22	12 31 46	+ 0 12.63	+ 6 37.4	16,3	12 42 24.91	— 0.01	+ 3 12 35.5	+ 2.9	+ 0.98	— 6.0	22
April	4	11 33 40	+ 0 39.96	+ 7 23.4	4,2	12 31 35.54	— 0.01	+ 4 2 56.1	+ 2.9	+ 1.06	— 6.1	23
	12	12 14 25	— 2 18.18	+ 3 57.0	2,1	12 25 2.45	+ 0.05	+ 4 28 13.4	+ 2.9	+ 1.06	— 5.8	24
	15	11 35 0	+ 1 33.75	— 7 1.1	6,3	12 22 44.92	+ 0.03	+ 4 35 46.3	+ 2.8	+ 1.05	— 5.7	25

1907	M. Z. Utrecht	$\Delta\alpha$	$\Delta\delta$	Vgl.	$\alpha$ app.	Parall.	$\delta$ app.	Parall.	Red. ad l. app.	*	
(451) Patientia.											
April 15	12 <sup>h</sup> 2 <sup>m</sup> 17 <sup>s</sup>	+2 <sup>m</sup> 46 <sup>s</sup> 64	-6' 1" 8	6,3	14 <sup>h</sup> 26 <sup>m</sup> 48 <sup>s</sup> 38	-0 <sup>s</sup> 04	+ 5° 32' 20" 8	+2" 8	+1 <sup>s</sup> 12	-4" 7	26
Mai 2	11 52 9	+1 23.08	+ 9 50.0	6,3	14 13 20.29	+0.01	+ 6 7 34.5	+2.8	+1.27	-3.5	27
4	9 55 19	+0 21.41	- 9 34.0	16,8	14 11 50.14	-0.06	+ 6 8 53.2	+2.8	+1.29	-3.4	28
7	11 6 6	+1 20.24	+ 9 3.0	10,4	14 9 29.63	0.00	+ 6 9 40.5	+2.7	+1.29	-3.2	29
10	10 56 1	+1 8.27	- 5 26.6	6,3	14 7 15.84	0.00	+ 6 9 4.1	+2.7	+1.28	-2.8	30
11	10 40 49	+0 25.36	- 6 1.2	8,4	14 6 32.93	-0.01	+ 6 8 29.6	+2.7	+1.28	-2.7	30
12	11 6 46	-0 18.54	- 6 48.8	20,5	14 5 49.03	+0.02	+ 6 7 42.2	+2.7	+1.28	-2.5	30
(3) Juno.											
Mai 11	11 10 13	-0 56.05	+ 0 39.1	8,4	14 31 43.73	0.00	- 0 4 24.6	+2.9	+1.35	-3.0	31
21	11 59 18	+1 26.71	+ 1 5.1	6,3	14 24 29.09	+0.06	+ 0 32 36.3	+2.9	+1.37	-2.4	32
28	11 36 48	-0 14.78	+ 0 49.6	22,4	14 20 10.67	+0.06	+ 0 49 5.1	+2.8	+1.35	-1.8	33
29	12 34 59	-0 49.57	+ 2 39.5	6,3	14 19 35.89	+0.09	+ 0 50 55.1	+2.8	+1.36	-1.7	33
Juli 2	10 36 59	-0 49.55	+ 1 8.6	6,3	14 11 27.06	+0.09	+ 0 22 30.5	+2.4	+1.14	+ 0.5	34
(41) Daphne.											
Mai 21	12 23 51	-1 20.87	- 4 48.4	10,5	15 42 34.31	8.735	+ 7 0 6.9	0.794	+1.48	-0.9	35
24	10 21 58	+2 19.91	+ 4 9.2	6,3	15 40 42.74	9.058 <sub>n</sub>	+ 7 17 49.6	0.794	+1.48	-0.5	36
28	10 42 21	-1 16.34	-10 30.7	10,4	15 38 12.08	8.738 <sub>n</sub>	+ 7 43 28.5	0.789	+1.52	+ 0.2	37
(17) Thetis.											
Juni 17	13 2 0	+0 35.11	+10 34.9	12,3	18 29 14.22	+0.02	-17 25 50.4	+7.2	+1.89	+ 5.2	38
21	11 32 1	-2 56.50	- 2 0.0	6,3	18 25 42.65	-0.08	-17 38 25.1	+7.2	+1.93	+ 5.4	38
27	12 11 10	-0 57.69	+ 8 26.0	6,3	18 20 4.57	+0.02	-17 59 51.1	+7.3	+2.06	+ 5.4	39
30	11 37 47	-1 39.63	- 2 47.1	8,4	18 17 16.69	-0.01	-18 11 12.0	+7.3	+2.09	+ 5.3	40
Juli 2	12 15 18	-0 45.16	+ 9 1.2	10,5	18 15 23.49	+0.06	-18 19 7.2	+7.3	+2.10	+ 5.2	41
5	12 32 38	-0 18.16	- 0 40.5	12,6	18 12 39.27	+0.10	-18 31 14.8	+7.2	+2.12	+ 5.1	42
(65) Cybele.											
Aug. 10	12 20 31	-1 0.23	+ 4 30.1	6,3	20 41 17.02	+0.04	-15 52 40.0	+3.7	+2.36	+11.9	43
11	12 1 49	+0 29.45	+10 55.4	2,1	20 40 35.59	+0.03	-15 56 17.3	+3.7	+2.36	+11.8	44
(71) Niobe.											
Aug. 30	9 22 45	-0 3.60	+ 1 5.3	22,4	23 23 32.25	-0.14	+18 2 52.7	+2.6	+2.40	+12.9	45
31	9 35 53	-1 2.28	+ 2 56.5	12,6	23 22 33.58	-0.13	+18 4 44.1	+2.6	+2.41	+13.1	45
Sept. 4	10 50 2	+0 11.95	+ 3 50.0	28,4	23 18 31.90	-0.07	+18 10 1.4	+2.4	+2.47	+14.1	46
9	10 36 32	+0 8.01	- 0 12.5	18,4	23 13 27.03	-0.07	+18 11 43.0	+2.4	+2.48	+15.0	47
10	11 22 30	-0 55.56	- 0 31.1	6,3	23 12 23.47	-0.03	+18 11 24.5	+2.4	+2.49	+15.1	47
11	13 8 7	+0 20.54	+ 3 20.4	16,4	23 11 17.44	+0.06	+18 10 47.5	+2.3	+2.49	+15.4	48
12	10 8 22	-0 33.08	+ 2 45.4	10,5	23 10 23.82	-0.07	+18 10 12.6	+2.4	+2.49	+15.5	48
14	12 16 35	+1 25.87	+ 0 48.8	8,3	23 8 15.63	+0.03	+18 8 5.4	+2.4	+2.50	+16.0	49
(433) Eros.											
Sept. 14	11 3 45	+0 18.49	+ 4 53.8	12,6	1 10 8.15	-0.42	+32 43 45.4	+5.5	+2.70	+ 8.6	50
23	8 14 5	-0 18.80	+ 2 58.4	12,6	1 0 42.76	-0.70	+35 4 13.0	+7.9	+2.90	+10.8	51
24	7 51 19	+0 30.01	- 9 18.7	24,5	0 59 22.20	-0.73	+35 17 55.4	+8.4	+2.92	+11.1	52
25	8 8 30	+1 26.87	+ 1 39.5	8,4	0 57 55.75	-0.72	+35 31 31.5	+7.9	+2.93	+11.5	53
26	9 18 34	-0 7.97	+ 1 55.4	12,3	0 56 22.60	-0.59	+35 45 8.2	+6.3	+2.95	+11.7	54
27	7 43 8	+2 22.52	+ 0 19.4	8,4	0 54 56.37	-0.75	+35 56 40.7	+8.3	+2.97	+12.1	55
28	12 45 33	-1 5.99	- 9 44.2	12,6	0 52 59.67	+0.06	+36 11 2.1	+4.3	+3.00	+12.3	56
Okt. 4	8 30 50	+2 17.24	- 8 50.5	8,4	0 42 38.99	-0.66	+37 7 0.9	+6.5	+3.06	+14.5	57
4	14 8 27	-0 28.64	+ 1 11.1	6,3	0 42 11.21	+0.47	+37 8 50.9	+5.3	+3.06	+14.4	58
5	8 25 42	+0 22.21	- 1 35.1	8,4	0 40 43.96	-0.66	+37 14 16.5	+6.5	+3.06	+14.7	57
10	14 47 55	+0 18.80	- 6 28.6	4,2	0 30 5.07	+0.71	+37 40 11.3	+6.9	+3.06	+16.5	59
12	8 57 17	-0 50.81	- 1 58.4	6,3	0 26 26.63	-0.48	+37 44 1.9	+5.3	+3.06	+17.0	60
12	13 19 43	+1 5.01	- 4 45.6	4,2	0 26 2.80	+0.50	+37 44 17.9	+5.4	+3.06	+17.2	61

1907	M. Z. Utrecht	$\Delta\alpha$	$\Delta\delta$	Vgl.	$\alpha$ app.	$\log p. \Delta$	$\delta$ app.	$\log p. \Delta$	Red. ad l. app.	*
(410) Chloris.										
Okt. 4	12 <sup>h</sup> 21 <sup>m</sup> 44 <sup>s</sup>	-2 <sup>m</sup> 39 <sup>s</sup> 39	+ 0' 56" 3	6,3	0 <sup>h</sup> 15 <sup>m</sup> 26 <sup>s</sup> 82	8.963	-17° 3' 47".1	0.912	+2 <sup>s</sup> 53 +15" 2	62
(554) Peraga.										
Sept. 18	14 21 22	-2 16.75	+ 5 35.7	6,3	23 21 58.64	9.379	+ 0 51 42.5	0.837	+2.46 +16.3	63
23	7 56 46	+1 22.91	+ 7 36.2	6,3	23 17 36.61	9.438 <sub>n</sub>	+ 0 27 27.5	0.839	+2.45 +16.5	64
27	8 23 51	+0 19.65	+ 5 44.8	16,6	23 14 3.25	9.336 <sub>n</sub>	+ 0 6 40.4	0.841	+2.45 +16.6	66
(505) Cava.										
Okt. 4	12 48 15	-0 5.20	+ 1 20.3	12,3	0 8 26.91	9.269	-17 40 33.7	0.905	+2.53 +15.0	67
10	11 54 6	+0 55.30	- 1 48.1	6,3	0 3 31.18	9.020	-17 55 51.7	0.914	+2.51 +14.2	68
12	10 54 39	-0 35.77	- 4 30.5	8,4	0 2 0.12	8.353	-17 58 34.2	0.917	+2.52 +14.1	68
(53) Kalypso.										
Okt. 10	12 49 35	+1 33.93	- 2 14.6	6,3	2 19 52.09	-0.02	+ 5 40 0.3	+4.7	+2.58 +12.9	69
12	11 41 19	+0 12.51	- 2 8.3	16,4	2 18 30.81	-0.09	+ 5 27 26.7	+4.7	+2.60 +12.9	70
28	8 15 3	+0 39.16	—	8,-	2 5 31.09	-0.22	—	—	+2.76 —	71
28	8 21 50	—	- 0 3.8	-3	—	—	+ 3 47 42.2	+5.1	— +13.5	71
Nov. 1	8 29 35	+0 1.02	—	12,-	2 2 0.45	-0.18	—	—	+2.77 —	72
1	8 37 52	—	- 2 37.4	-6	—	—	+ 3 25 15.6	+5.1	— +13.6	72
2	8 50 42	-0 51.58	- 7 56.7	10,5	2 1 7.85	-0.16	+ 3 19 56.2	+5.1	+2.77 +13.5	72
3	13 21 46	+1 39.89	+ 0 59.1	6,3	2 0 6.07	+0.15	+ 3 13 50.8	+5.1	+2.77 +13.7	73
4	11 52 3	+0 52.49	- 3 40.9	10,5	1 59 18.68	+0.05	+ 3 9 10.8	+5.1	+2.78 +13.7	73
(471) Papagena.										
Nov. 1	12 16 54	-0 32.98	-10 57.4	12,6	1 35 45.13	9.111	-13 37 53.6	0.899	+2.64 +12.6	74
2	11 35 35	-1 20.46	- 6 38.8	10,4	1 34 57.65	8.857	-13 33 35.1	0.902	+2.64 +12.5	74
3	11 28 50	-2 8.15	- 1 55.6	10,5	1 34 9.96	8.837	-13 28 52.1	0.902	+2.64 +12.3	74
4	12 21 19	+0 32.49	-11 12.1	10,5	1 33 21.62	9.195	-13 23 43.0	0.897	+2.63 +12.2	75
(37) Fides.										
Nov. 24	13 35 41	-0 46.16	-10 20.9	6,3	5 38 0.01	+0.01	+28 22 7.8	+2.8	+3.50 — 1.9	76
25	11 24 34	+1 27.78	- 1 7.2	6,2	5 37 17.36	-0.16	+28 23 24.9	+3.1	+3.53 — 1.6	77
27	12 35 22	-0 14.29	+ 1 28.6	24,5	5 35 35.33	-0.05	+28 26 0.9	+2.9	+3.57 — 1.4	77
29	13 35 58	+0 38.38	+ 3 52.6	10,5	5 33 47.34	+0.05	+28 28 13.6	+2.9	+3.61 — 1.1	78
Dez. 1	11 26 41	-1 7.19	+ 5 36.2	10,5	5 32 1.79	-0.12	+28 29 57.3	+3.0	+3.63 — 1.0	78
3	13 55 43	+1 13.89	+ 3 15.0	6,3	5 30 0.20	+0.10	+28 31 25.1	+3.0	+3.68 — 0.6	79
6	10 25 15	-1 4.77	-10 55.6	6,3	5 27 8.01	-0.17	+28 32 35.1	+3.2	+3.76 — 0.6	80
(26) Proserpina.										
Nov. 29	14 0 9	+0 54.72	+ 8 25.3	6,3	5 10 39.19	+0.07	+25 35 2.4	+2.1	+3.55 + 1.2	81
30	11 57 5	+0 54.83	-13 32.6	8,4	5 9 44.85	-0.03	+25 35 3.1	+2.1	+3.58 + 1.3	82
Dez. 6	11 34 36	-0 25.48	- 4 46.4	8,4	5 3 36.93	-0.03	+25 34 3.6	+2.1	+3.68 + 1.8	83
(563) Suleika.										
Nov. 30	12 29 49	-2 31.56	- 6 55.3	4,2	2 27 49.21	9.358	+ 3 36 28.6	0.824	+2.91 +11.0	84
Dez. 1	11 55 48	+0 19.21	- 7 11.5	12,3	2 27 16.52	9.279	+ 3 42 25.7	0.821	+2.89 +11.0	85
6	9 26 34	-0 21.61	+ 3 57.0	8,4	2 24 57.46	6.799 <sub>n</sub>	+ 4 15 36.8	0.814	+2.90 +10.8	86

## Mittlere Örter der Vergleichsterne.

*	$\alpha$ 1907.0	$\delta$ 1907.0	Autorität	*	$\alpha$ 1907.0	$\delta$ 1907.0	Autorität
1	7 <sup>h</sup> 39 <sup>m</sup> 46 <sup>s</sup> 63	+21° 56' 25".2	AG Berl B 3105	4	7 <sup>h</sup> 30 <sup>m</sup> 8 <sup>s</sup> 76	+22° 36' 5".6	Bo VI +22° 17' 27"
2	7 37 2.62	+22 5 4.2	» 3077	5	7 27 16.32	+23 5 11.3	AG Berl B 3000
3	7 32 7.41	+22 32 59.0	» 3038	6	7 24 2.00	+23 15 0.0	» 2973

*	$\alpha$ 1907.0	$\delta$ 1907.0	Autorität	*	$\alpha$ 1907.0	$\delta$ 1907.0	Autorität
7	7 <sup>h</sup> 18 <sup>m</sup> 49 <sup>s</sup> .15	+23° 35' 50".4	AG Berl B 2931	47	23 <sup>h</sup> 13 <sup>m</sup> 16 <sup>s</sup> .54	+18° 11' 40".5	AG Berl A 9516
8	7 12 25.45	+24 14 41.4	" 2879	48	23 10 54.41	+18 7 11.7	" 9502
9	10 0 42.44	+26 19 8.6	AG Cbr E. 5207	49	23 6 47.26	+18 7 0.6	" 9483
10	9 42 55.15	+29 21 57.0	" 5091	50	1 9 46.96	+32 38 43.0	AG Lei 453
11	10 53 54.02	+11 36 30.7	(BD +11°23'00") Kü Bo <sub>4</sub>	51	1 0 58.66	+35 1 3.8	" 383
12	10 48 47.84	+11 48 23.4	AG Lpz I 4148	52	0 58 49.27	+35 27 3.0	AG Lu 439
13	10 45 40.45	+12 32 4.2	" 4132	53	0 56 25.95	+35 29 40.5	" 419
14	10 39 23.23	+13 29 10.2	" 4098	54	0 56 27.62	+35 43 1.1	" 420
15	10 35 36.89	+14 3 8.7	" 4082	55	0 52 30.88	+35 56 9.2	" 379
16	11 37 44.08	-2 28 6.8	AG Str 4392	56	0 54 2.66	+36 20 34.0	" 394
17	11 13 44.21	+1 4 0.4	AG Alb 4239	57	0 40 18.69	+37 15 36.9	" 292
18	12 4 55.35	+2 25 11.2	" 4440	58	0 42 36.79	+37 7 25.4	" 307
19	12 0 25.26	+2 42 7.4	" 4449	59	0 29 43.21	+37 46 23.4	" 205
20	11 42 0.64	+3 59 29.5	" 4350	60	0 27 14.38	+37 45 43.3	" 192
21	11 35 43.07	+4 10 20.3	" 4328	61	0 24 54.73	+37 48 46.3	" 176
22	12 42 11.30	+3 6 4.1	" 4567	62	0 18 3.68	-17 4 58.6	AG Wash Z 79.11, 145.69
23	12 30 54.52	+3 55 38.8	" 4519	63	23 24 12.93	+0 45 50.5	AG Nic 5832
24	12 27 19.57	+4 24 22.2	" 4510	64	23 16 11.25	+0 19 34.8	BD+0°49'00", Anschl.a.*65
25	12 21 10.12	+4 42 53.1	" 4484	65	23 22 39.02	+0 12 39.7	AG Nic 5828
26	14 24 0.62	+5 38 27.3	AG Lpz II 6713	66	23 13 41.15	+0 0 39.0	" 5806
27	14 11 55.94	+5 57 48.0	" 6652	67	0 8 29.58	-17 42 9.0	AG Wash Z 74.69, 148.9
28	14 11 27.44	+6 18 30.6	" 6650	68	0 2 33.37	-17 54 17.8	AW 18274
29	14 8 8.10	+6 0 40.7	" 6635	69	2 18 15.58	+5 42 2.0	AG Lpz II 888
30	14 6 6.29	+6 14 33.5	" 6629	70	2 18 15.70	+5 29 22.1	" 889
31	14 32 38.43	-0 5 0.7	AG Nic 3769	71	2 4 49.17	+3 47 32.5	AG Alb 602
32	14 23 1.01	+0 31 33.6	" 3744	72	2 1 56.66	+3 27 39.4	" 595
33	14 20 24.10	+0 48 17.3	" 3736	73	1 58 23.41	+3 12 38.0	" 581
34	14 12 15.47	+0 21 21.4	" 3713	74	1 36 15.47	-13 27 8.8	San <sub>4</sub> 108
35	15 43 53.70	+7 4 56.2	AG Lpz II 7088	75	1 32 46.50	-13 12 43.1	Q 645
36	15 38 21.35	+7 13 40.9	" 7057	76	5 38 42.67	+28 32 30.6	AG Cbr E. 2652
37	15 39 26.90	+7 53 59.0	" 7061	77	5 35 46.05	+28 24 33.7	" 2597
38	18 28 37.22	-17 36 30.5	AG Wash Z 60.64, 133.36	78	5 33 5.35	+28 24 22.1	" 2565
39	18 21 0.20	-18 8 22.5	" 60.56, 132.21	79	5 28 42.63	+28 28 10.7	" 2519
40	18 18 54.23	-18 8 30.2	" 58.118, 133.30	80	5 28 9.02	+28 43 31.3	" 2512
41	18 16 6.55	-18 28 13.6	Mü <sub>2</sub> 7295	81	5 9 40.92	+25 26 35.9	" 2368
42	18 12 55.31	-18 30 39.4	Par <sub>3</sub> 23692	82	5 8 46.44	+25 48 34.4	" 2363
43	20 42 14.89	-15 57 22.0	AG Wash Z 63.59, 131.143	83	5 3 58.73	+25 38 48.2	" 2317
44	20 40 3.78	-16 7 24.5	" 64.86, 137.46	84	2 30 17.86	+3 43 12.9	AG Alb 720
45	23 23 33.45	+18 1 34.5	Wi (Palisa 1900) 3315	85	2 26 54.42	+3 49 26.2	" 707
46	23 18 17.48	+18 5 57.3	AG Berl A 9553	86	2 25 16.17	+4 11 29.0	" 696

## Vergleichung der Beobachtungen mit Ephemeriden (B—R).

1907	$\Delta\alpha$	$\Delta\delta$	1907	$\Delta\alpha$	$\Delta\delta$	1907	$\Delta\alpha$	$\Delta\delta$
(8) Flora. [M. N. 66.547.]			(79) Eurynome. [B. J. 1909.]			(68) Leto. [B. J. 1909.]		
Jan. 11	-10 <sup>s</sup> .19	+19 <sup>s</sup> .5	März 4	-0 <sup>s</sup> .57	+11 <sup>s</sup> .7	März 22	+2 <sup>s</sup> .99	-43 <sup>s</sup> .1
13	-10.07	+21.3	April 2	-0.60	+11.0	April 4	+2.93	-41.6
17	-10.20	+21.0	(82) Alkmene. [B. J. 1909.]			12	+3.00	-35.5
19	-9.94	+19.3	März 6	+1.24	-13.2	15	+3.26	-42.3
22	-9.93	+18.3	11	+1.52	-11.7	(451) Patientia. [A. N. 4165.]		
23	—	+20.0	April 2	+1.32	-8.8	April 15	-0.81	+7.0
			4	+0.91	-9.8	Mai 2	-1.07	+4.5

1907	$\Delta\alpha$	$\Delta\delta$
Mai 4	— 1 <sup>o</sup> 04	+ 5 <sup>m</sup> 6
7	— 0.85	+ 3.1
10	— 0.89	+ 7.8

(3) Juno.  
[Naut. Alm. 1907.]

Mai 11	— 0.16	+ 1.4
21	— 0.19	+ 1.1
28	— 0.16	+ 0.5
29	— 0.17	+ 2.9
Juli 2	— 0.29	+ 5.2

(17) Thetis.  
[B. J. 1909.]

Juni 17	+11.07	— 0.1
21	+11.64	+ 1.5
27	+11.50	— 1.6
30	+11.43	— 3.3
Juli 2	+11.31	— 2.3
5	+11.56	— 6.6

(65) Cybele.  
[B. J. 1909.]

Aug. 10	— 14.34	— 46.7
11	— 14.58	— 45.1

1907	$\Delta\alpha$	$\Delta\delta$
(71) Niobe. [B. J. 1909.]		
Aug. 30	— 11 <sup>h</sup> 89	— 161 <sup>m</sup> 5
31	— 11.79	— 163.5
Sept. 4	— 12.06	— 166.8
9	— 11.92	— 168.1
10	— 11.92	— 168.7
11	— 11.79	— 173.1
12	— 11.71	— 171.0
14	— 11.74	— 173.6

(433) Eros.  
[B. J. 1909.]

Sept. 14	— 1.07	— 2.4
23	— 1.07	— 7.2
24	— 1.21	— 6.2
25	— 1.34	— 6.0
26	— 1.08	— 5.1
27	— 1.23	— 5.6
28	— 1.00	— 5.7
Okt. 4	— 1.15	— 6.8
5	— 1.13	— 8.5
10	— 0.92	— 10.1
12	— 1.14	— 9.5

1907	$\Delta\alpha$	$\Delta\delta$
(53) Kalypso. [B. J. 1909.]		
Okt. 10	+6 <sup>h</sup> 66	+31 <sup>m</sup> 7
12	+6.83	+26.3
28	+6.76	+29.0
Nov. 1	+6.65	+28.7
2	+6.84	+28.8
3	+6.69	+28.3
4	+6.70	+27.4

(37) Fides.  
[B. J. 1909.]

Nov. 24	— 5.43	— 4.4
25	— 5.32	— 2.8
27	— 5.53	— 2.5
29	— 5.68	— 2.7
Dez. 1	— 5.48	— 2.1
3	— 5.19	— 2.2
6	— 5.76	— 7.1

(26) Proserpina.  
[B. J. 1909.]

Nov. 29	— 1.81	— 1.8
30	— 1.66	— 3.2
Dez. 6	— 1.77	— 2.5

### Helligkeitsschätzungen.

Planet	1907	Schätzung	Instr.	Bem.	Planet	1907	Schätzung	Instr.	Bem.
(8) Flora	Jan. 11	$Fl = \frac{1}{2}(a + b)$	R		(3) Juno	Mai 11	$\mathcal{F} = y$	S	
	» 13	$Fl = c$	R		» 21	$\mathcal{F} < z$	R		1
	» 17	$Fl = d$	R		» 28	$\mathcal{F} = \frac{1}{2}(A + B)$	R		2
	» 19	$Fl = \frac{1}{2}(f + g)$	R	1	(41) Daphne	Mai 21	$Da = \frac{1}{2}(C + D)$	R	
	» 22	$Fl = h$	S		» 24	$E \ 2 \ Da \ 3 \ F$	R		
	» 26	$Fl = k$	R		(17) Thetis	Juni 27	$Th = G$	R	
	» 30	$Fl < l$	R		» 30	$Th = H$	R		
	Febr. 6	$Fl = \frac{1}{2}(m + n)$	S		Juli 2	$Th = K, Th > L$	R		
	» 7	$m \ 4 \ Fl \ 2 \ p$	R		» 5	$Th = \frac{1}{2}(M + N)$	R		
(511) Davida	Febr. 7	$Da = q$	R		(433) Eros	Okt. 12	$Er = P, Er < Q$	R	
	März 3	$Da = \frac{1}{2}(r + s)$	R		(471) Papagena	Nov. 1	$R \ 4 \ Pa \ 1 \ S$	R	
(11) Parthenope	März 3	$Pa = t$	R		» 3	$Pa = S$	S		
	» 4	$v \ 1 \ Pa \ 3 \ t$	R	2	(37) Fides	Nov. 24	$Fi = \frac{1}{2}(T + V)$	R	
	» 6	$Pa = w$	R		» 29	$Fi = W$	R		
	» 22	$Pa = x$	S	2					

### BD-Nummern der Vergleichsterne.

$a$ +22°1780	$l$ +23°1703	$v$ +11°2300	$D$ + 7°3025	$N$ —18°4887
$b$ +21 1688	$m$ +24 1600	$w$ +12 2277	$E$ + 7 3018	$P$ +37 80
$c$ +22 1749	$n$ +24 1601	$x$ +13 2301	$F$ + 7 3015	$Q$ +37 79
$d$ +22 1744	$p$ +24 1616	$y$ + 0 3212	$G$ —18 4959	$R$ —13 307
$f$ +23 1756	$q$ +26 2044	$z$ + 0 3191	$H$ —18 4936	$S$ —13 309
$g$ +22 1741	$r$ +29 1944	$A$ + 1 2924	$K$ —18 4937	$T$ +28 865
$h$ +22 1717	$s$ +29 1947	$B$ + 0 3176	$L$ —18 4930	$V$ +28 870
$k$ +23 1723	$t$ +11 2299	$C$ + 7 3032	$M$ —18 4890	$W$ +28 838

Zeit wie bei der Ortsbestimmung. R = Refraktor (10-Zöller), S = Sucher (3-Zöller,  $f = 118$  cm),  
< = schwächer als.

Bemerkungen: 1. Wolken. — 2. Mond.

Die Deklination des Planeten (41) Daphne Mai 28 ist nach Bartons Ephemeride (A. N. 4174) etwa 5' zu groß.  
Rechnungsfehler sind ausgeschlossen.

Utrecht, 1908 Febr. 9.

*J. van der Bilt.*

### Observations of asteroids.

Name	Gr. m. t.	$\alpha$ 1908.0	$\delta$ 1908.0	Mg.	Name	Gr. m. t.	$\alpha$ 1908.0	$\delta$ 1908.0	Mg.
1908 Jan. 30.					1908 Febr. 28.				
(454) Mathesis	13 <sup>h</sup> 15 <sup>m</sup> 5	8 <sup>h</sup> 15 <sup>m</sup> 38 <sup>s</sup> 9	+30° 13.5	—	1908 CC	12 <sup>h</sup> 22 <sup>m</sup> 5	7 <sup>h</sup> 38 <sup>m</sup> 48 <sup>s</sup> 9	+11° 22.0	—
1908 Jan. 31.					1906 VE	13 36.5	7 59 42.3	+29 17.1	—
(454) Mathesis	11 46.5	8 14 39.8	+30 15.8	—	(620) Drakonia	16 46.5	10 29 26.0	+14 52.1	—
Corrected place, see A. N. 177.175.					1908 CM (new)	18 14.5	10 44 47.2	+17 44.0	13
1908 Febr. 20.					(537) Pauly	»	10 39 26.9	+17 1.9	13
1908 CH	12 39.5	8 18 39.6	+23 18.6	—	1908 Febr. 29.				
(534) Nassovia	»	8 29 21.5	+22 12.1	—	1908 CC	12 12.5	7 38 31.9	+11 29.9	—
1908 Febr. 22.					(620) Drakonia	13 26.5	10 28 34.3	+14 55.4	—
1908 CF	14 29.5	8 29 20.8	+19 10.3	—	1908 March 3.				
1908 CG	»	8 37 47.2	+18 49.2	—	1908 CC	13 50.0	7 37 50.6	+12 53.6	—
1908 CL (new)	14 35.5	10 21 10.5	+11 17.2	—	1908 CN (new)	15 45.5	10 35 46.9	+19 9.2	13
1908 Febr. 24.					1908 CO (new)	»	10 39 48.8	+18 17.9	13
1908 CL	12 56.0	10 19 27.3	+11 20.9	—	1908 CP (new)	»	10 46 48.1	+18 41.3	13
(434) Hungaria	14 25.5	10 21 41.7	— 4 29.5	—	1908 March 5.				
Taunton, Mass., 1908 March 13.					1908 CM	16 46.5	10 37 59.6	+16 39.5	—
					(537) Pauly	»	10 34 59.6	+17 35.8	—
					1908 CN	»	10 34 4.6	+19 13.8	—
					1908 CO	»	10 38 8.5	+18 21.0	—
					1908 CP	»	10 45 13.2	+19 1.2	—

*Joel H. Metcalf.*

### Ephéméride de la planète (354) Eleonora.

12<sup>h</sup> temps moyen de Paris.

1908	$\alpha$	$\delta$	$\log r$	$\log A$	1908	$\alpha$	$\delta$	$\log r$	$\log A$
Mai 1	16 <sup>h</sup> 6 <sup>m</sup> 53 <sup>s</sup>	+7° 39.8	0.4398	0.2666	Mai 21	15 <sup>h</sup> 51 <sup>m</sup> 1 <sup>s</sup>	+8° 44.1	0.4436	0.2666
3	5 27	7 50.2			23	49 22	8 45.2		
5	3 58	7 59.9	0.4406	0.2648	25	47 43	8 45.3	0.4443	0.2693
7	2 27	8 8.6			27	46 6	8 44.3		
9	16 0 53	8 16.6	0.4413	0.2639	29	44 31	8 42.3	0.4450	0.2728
11	15 59 17	8 23.6			31	42 58	8 39.3		
13	57 39	8 29.6	0.4421	0.2639	Juni 2	41 28	8 35.3	0.4458	0.2772
15	56 0	8 34.7			4	40 1	8 30.3		
17	54 21	8 38.9	0.4428	0.2648	6	38 37	8 24.4	0.4465	0.2823
19	52 41	8 42.0			8	37 16	8 17.5		
J 21	15 51 1	+8 44.1	0.4436	0.2666	10	15 36 0	+8 9.7	0.4472	0.2881

Les éléments ont été pris dans le Berliner Jahrbuch de 1910, où la grandeur de la planète, le jour de l'opposition, est notée 10.1.

Observatoire de Besançon, le 10 février 1908.

*P. Chofardet.*