11439

Reduction

der Beobachtungen von (247) Eva p. I. S. 1–30
und von (252) Tyche I. S. 31–57
am Fadenmikrometer des Siebenfüßers
auf der Sternwarte in Düsseldorf

(247) 1885 März 14 bis 1901 Sept 18
(252) 1886 Mai 6 bis 1895 Juni 28

Richard van den Bergh
Bilker Heimatverein
R3509980052

Planet (247) Eukrate entdeckt von R. Luther am Siebenfüssler in Düsseldorf 1885 März 14 gegen 10½ Uhr Abends
benannt durch H. Geh. R. Prof. Dr. Eduard Schoenfeld, Dir. d. K. Univ. Sternwarte in Bonn 1885 April 8
A.N. 2661

aussl. Rad. 580,33
ein. Rad. 465,82
mittl. Rad. a 513,10
log a 2.71020
log $\frac{15}{4a}$ 7.86383

## 1885 März 14.

nach Lamont N 764 (9)

| | | | | |
|---|---|---|---|---|
| 1850,0 | $11^h 52^m$ | 34,97 | +5° 28′ | 3,″10 |
| | 178° 8 | 44,55 | | |
| | + 26 | 54,73 | − 11 | 41,63 |
| 1885,0 | 178° 35 | 39,28 | +5° 16 | 21,47 |
| | + 26 | 19 | − 13 | 27 |
| März 14 | 178° 36 | 8,47 | +5° 16 | 8,20 |
| 1885 März 14 | − 1 | 24 | 8,48 | − 3 13,39 |
| 17 | 48,0 | | | |
| | 177° 12′ | 0,″0 | +5° 12′ | 54,″81 |
| | $11^h 48^m$ | 48,00 | | |

n. Zt. Dof

(247) Eukrate (11) 5 Vergl. mit *a (9)

Beobachtungen siehe die neue Reduction unten.
auf der letzten Seite.

1867,5

| | | | | | | |
|---|---|---|---|---|---|---|
| α | 178° 22′20 | | | | | |
| δ | +5 22,20 | | | | | |
| 4 35 | 1.54407 | | | | | |
| 4 cos α | 9.99982 n | | | | | |
| 4 n | 1.30222 | | | | | |
| 4 sin α | 8.45400 | | | | | |
| 4 sin δ | 8.97312 | | | | | |
| 4 sin α cos δ | 8.72934 | | | | | |
| m | 46,0815 | | | | | |
| sin α cos δ | +0,0536 | | | | | |
| | 46,1351 | | | | | |
| | 35 | | | | | |
| | 1384053 | | | | | |
| | 2306755 | | | | | |
| 35 Δα | +1614,7285 | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 4 95 n cos α | 2.84611 n | | | | | |
| 35 Δδ | −701,″63 | | | | | |
| 1885 März 14,5 | | g + α | | H + α | | |
| f | +11,18 | 239° 30′ | | 94° 31 | | |
| 4 g | 0.9995 | | | 8.9633 | | |
| g | 60 54 | 9.7055 | n | 8.8962 | n | |
| 4 h | 1.2787 | 0.9995 | | 1.2737 | | |
| H | 275 55 | 9.9853 | n | 9.9986 | | |
| 4 i | 0.9082 n | 8.9651 | | 0.0018 | | |
| | | | | 0.9082 | n | |
| | +11,″18 | −8,″06 | | 258 57,75 | | |
| | − 0,79 | − 5,07 | | + 240 | | |
| | +18,80 | − 0,14 | | 498 57,75 | | |
| | + 29,19 | − 13,27 | | | | |

(247) Eukrate

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | (11) | | *a (9) | | Δα | | Δδ | |
| | $10^h 27^m$ | 11,50 | $10^h 32^m$ | 46,75 | − 5′ | 35,25 | − 18′ | |
| | 27 | 11,50 | 32 | 46,75 | | 35,25 | | 206 |
| | 37 | 3,25 | 42 | 39,50 | | 36,25 | | 200 |
| | 37 | 3,25 | 42 | 39,50 | | 36,25 | | 191 |
| | 48 | 58,00 | 54 | 34,25 | | 36,25 | | 187 |
| | 48 | 58,00 | 54 | 34,25 | | 36,25 | | 966 |
| 11 | 1 | 3,25 | 11 | 6 | 40,50 | 37,25 | 5) | |
| | 1 | 3,25 | | 6 | 40,50 | 37,25 | | − 193 |
| | 15 | 12,75 | | 20 | 50,75 | 38,00 | | − 3′ 13 |
| | 15 | 13,00 | | 20 | 50,75 | − 5 37,75 | | Δδ |
| | | | | | | 10) 65,75 | | |
| | | | | | | − 5 36,575 | | |
| | | | | | | 0,009 | | |
| 10 | $10^h 49$ | 53,8 | | | | − 5′ 36,565 | | Δα cos δ |
| | − 1 | 14,6 | | | | − 1° 24′ 8,48 | | Δα cos δ |
| | $10^h 48$ | 39,2 | | | | | | |
| | 23 28 | 59,82 | | | | | | |
| | 11 19 | 39,38 | | | | δR | +5° 12′9 | δ + 5° |
| | − 1 | 51,34 | | | | | | |
| | $11^h 17^m$ | 48,0 | m n. Zt. Dof | | | 9.99820 | | 9.9981 |
| | | | | | | 7.86203 | | 7.8619 |

nachher trübe, März 15,16 auch trübe

(11) südlich vom *a (9) beide oberh

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g äuss. s | 53 | | 69,5 | | 52,5 | | 71 | | 68,5 | | 50,5 | |
| g inn. s | 31 | | 54,5 | | 31,5 | | 56 | | 54 | | 26,5 | |
| s | 84 | 22 | 124 | 15 | 84 | 21 | 127 | 15 | 122,5 | 14,5 | 77 | 24 |
| D | 1.92428 | 1.34242 | 2.09342 | 1.17609 | | 1.32222 | 2.10380 | | 2.08814 | 1.16137 | 1.88649 | |
| 4 s g D | 9.78631 | 9.20445 | 9.95541 | 9.03808 | | 9.18425 | 9.96579 | | 9.95017 | 9.02340 | 9.74848 | |
| 4 sin β | | | 9.63434 | | | | | | | | | |
| 4 cos β | 9.89836 | 400,79 | 9.99740 | | 9.89836 | 401,26 | 9.58180 | | 9.65592 | 231,04 | 9.91816 | |
| 4 cos l | 9.99436 | 219,75 | | | 9.99487 | 194,71 | 9.99740 | | 9.99756 | 418,44 | 9.99327 | |
| sin β cos B | 2.60292 | −181,04 | 2.34194 | | 2.60343 | −206,55 | 2.28940 | | 2.36369 | −187,40 | 2.62163 | |

beide unterh

beide unterh

beid unterh

*b (9.10) nördlich vom Planet (11) beide unterh

## 1885 März 17.

*b (9.10) nur in Lamont 702 (10)

| | | | | |
|---|---|---|---|---|
| 1850,0 | $11^h 40^m$ | 25,31 | +5° 25′ | 42,″5 |
| | 175° 6 | 19,65 | | |
| | + 26 | 58,19 | − 11 | 39,60 |
| 1885,0 | 175° 33 | 17,84 | +5° 14 | 2,90 |
| | + 29,47 | | − 13,65 | |
| März 17 | 175° 33 | 47,31 | +5° 13 | 49,25 |
| 1885 März 17 | + 48 | 0,74 | − 1 | 51,27 |
| 13,0 | 176° 21 | 48,05 | +5° 11 | 57,98 |
| n. Zt. Dof | $11^h 45^m$ | 27,20 | R (11) 14 V. mit *b | |

(247) Eukrate

Beob. v. Dr Küstner in Bilk Circular 254
*b (9.5) 1885,0 $11^h 42$ 12,76 +5° 14 24

1867,5

| | | | | | | |
|---|---|---|---|---|---|---|
| α | 175° 19′81 | | | | | |
| δ | +5 19,88 | | | | | |
| 4 35 | 1.54407 | | | | | |
| 4 cos α | 9.99856 n | | | | | |
| 4 n | 1.30222 | | | | | |
| 4 sin α | 8.91066 | | | | | |
| 4 sin δ | 8.96997 | | | | | |
| 4 sin α cos δ | 9.18285 | | | | | |
| m | 46,0815 | | | | | |
| sin α cos δ | +0,1524 | | | | | |
| | 46,2339 | | | | | |
| | 35 | | | | | |
| | 1387017 | | | | | |
| | 2311695 | | | | | |
| | +1618,″1865 | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 4 35 n cos α | 2.84485 n | | | | | |
| 35 Δδ | −699,″60 | | | | | |
| 1885 März 17,4 | | g + α | | H + α | | |
| f | +11,39 | 235° 58′ | | 88° 19′ | | |
| 4 g | 1.0012 | | | 8.9601 | | |
| g | 60 25 | 9.7479 | n | 8.4680 | | |
| 4 h | 1.2734 | 1.0012 | | 1.2734 | | |
| H | 272 46 | 9.9184 | n | 9.9998 | | |
| 4 i | 0.9099 n | 8.9619 | | 0.0018 | | |
| | | | | 0.9099 | n | |
| | +11,″39 | −8,″09 | | 79 | 25 | |
| | − 0,76 | − 5,61 | | 27 | | |
| | +18,84 | + 0,05 | | 52 | | |
| | + 29,47 | −13,65 | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | 52 | | 64,5 |
| | | | | 27 | | 46 |
| | | | | 79 | 25 | 110,5 |
| | | | | 1.89763 | 1.39794 | 2.04336 |
| | | | | 9.75965 | 9.25996 | 9.90540 |
| | | | | 9.91284 | | 9.77399 |
| | | | | 9.99269 | 412,79 | 9.99602 |
| | | | | 2.61573 | 302,15 | 2.48021 |
| | | | | | −110,64 | |
| | | | | 51 | beide unterh | 64,5 |
| | | | | 27 | | 46,5 |
| | | | | 78 | 24 | 111 |
| | | | | 1.89209 | 1.38021 | 2.04532 |
| | | | | 9.75411 | 9.24223 | 9.90736 |
| | | | | 9.91553 | 415,91 | 9.77034 |
| | | | | 9.99327 | 299,77 | 9.99624 |
| | | | | 2.61900 | −116,14 | 2.47678 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 18,5 | | 18,5 | | 18,5 | | 18,5 | | 18,5 | | 18,5 | |
| | 1,26717 | | 1,26717 | | 1,26717 | | 1,26717 | | 1,26717 | | 1,26717 | |
| | 9,12921 | | 9,12921 | | 9,12921 | | 9,12921 | | 9,12921 | | 9,12921 | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | |

## 1885 Maerz 17 Fortsetzung

beide oberh. d. Culm. — beide oberh. — beide oberh.

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| n äuß. s | 65,5 | | 53 | | 67 | | 56 | |
| n inn. s. | 48 | | 31,5 | | 50 | | 35 | |
| s D | 113,5 | 17,5 | 84,5 | 21,5 | 117 | 17 | 91 | 21 |
| s gD | | | 1.92686 | 1.332244 | 2.06819 | 1.23045 | 1.95904 | 1.32222 |
| t gsB | | | 9.78890 | 9.19448 | 9.93021 | 9.09247 | 9.82108 | 9.18426 |
| cosA | 9.75093 | | 9.89680n | | 9.71955 | | 9.87460 | |
| cosB | 9.99645 | 286,80 | 9.99462 | | 9.99665 | 266,93 | 9.99487 | |
| stasB | 2.45758 | 399,60 | 2.60162 | | 2.42640 | 379,90 | 2.57967 | |
| Diff | | −112,80 | | | | −112,97 | | |

beide oberh. — beide unterh.

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| äuß. s | 67 | | 56,5 | | 53,5 | | 65 | |
| in. s. | 50 | | 35,5 | | 32,5 | | 49 | |
| s D | 117 | 17 | 92 | 21 | 86 | 21 | 114 | 16 |
| s gD | | | 1.96379 | | 1.93450 | 1.32222 | 2.05690 | 1.20412 |
| t gsB | | | 9.82583 | | 9.79652 | 9.18424 | 9.91894 | 9.06616 |
| cosA | | | 9.87081 | | 9.89203 | | 9.74675 | |
| cosB | | 266,93 | 9.99487 | | 9.99487 | 395,45 | 9.99703n | |
| stasB | | 376,60 | 2.57588 | | 2.59710 | 284,44 | 2.45398n | |
| Diff | | −109,67 | | | | −111,01 | | |

beide unterh. — beide unterh. — beide unterh.

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| äuß. s | 54 | 65 | 52,5 | | 64 | 51,5 | | 68 |
| in. s | 32 | 49 | 30,5 | | 48 | 30 | | 47 |
| s D | 86 22 | 114 16 | 83 | 22 | 112 16 | 81,5 | 21,5 | 110 16 |
| s gD | 1.34242 | | 1.91908 | | 2.04922 | 1.91116 | | 2.04139 |
| t gsB | 9.20444 | | 9.78110 | | 9.91126 | 9.77318 | | 9.90343 |
| cosA | 9.89203 | | 9.90141 | | 9.76283 | 9.90583n | | 9.77754 |
| cosB | 9.99436 | 394,99 | 9.99436 | 403,62 | 9.99703n | 9.99462 | 408,00 | 9.99703n |
| stasB | 2.59659 | 284,44 | 2.60597 | 295,16 | 2.47006n | 2.61065n | 305,33 | 2.48477n |
| Diff | | −110,55 | | −108,46 | | | −102,67 | |

beide oberh. — beide oberh.

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| äuß. s | 67,5 | | 57 | | 68 | | 58 | |
| in. s | 52,5 | | 38 | | 52 | | 39 | |
| s D | 120 | 15 | 95 | 19 | 120 | 16 | 97 | 19 |
| s gD | 2.07918 | 1.17609 | 1.97772 | 1.27875 | | 1.20412 | 1.98677 | |
| t gsB | 9.94120 | 9.03811 | 9.83976 | 9.14079 | | 9.06614 | 9.84881 | |
| cosA | 9.68759 | | 9.85880 | | 9.68759 | | 9.85016 | |
| cosB | 9.99740 | 1842 | 9.99581 | | 9.99703n | 248,21 | 9.99581 | |
| stasB | 2.39519 | 367,12 | 2.56481 | | 2.39482n | 359,89 | 2.55617 | |
| Diff | | −118,70 | | | | −111,68 | | |

## 1885 Maerz 19.

(35) Lamont N 664 (3)

| | | | | |
|---|---|---|---|---|
| 1850,0 | 11h 33 | 55,83 | +5° 25 | 19,20 |
| | 173° 28 | 57,45 | | |
| | + 27 | 0,02 | − 11 | 37,70 |
| 1885,0 | 173° 55′ | 57,47 | +5° 13′ | 41,50 |
| | + | 29,53 | − | 13,85 |
| Sidereal 19 | 173° 56 | 27,00 | +5° 13 | 27,65 |
| März 19 | +1 51 | 57,04 | − 2 | 28,82 |
| h 25 | 175° 48′ | 24,04 | +5° 10′ | 58,83 : |
| 1.27 | 11h 43 | 13,60 | Pk (kl. II) 27 Y. mit *c | |

(247) Eucrate

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1867,5 | α | 173° 42′46 | 1885 März 19,4 | f | +11,53 | G+α | 234° 3′ | N+α 84° 33′ |
| | δ | +5 19,51 | | g | 1.0026 | | | 8.9597 |
| | g35 | 1.54407 | | g | 60 7 | | 9.7687n | 8.9776 |
| | g cosα | 9.99737.n | | h | 1.2732 | | 1.0026 | 1.2732 |
| | gn | 1.30222 | | N | 270 37 | | 9.9082n | 9.9980 |
| | gsinα | 9.03981n | | i | 0.9105n | | 8.9615 | 0.0018 |
| | gsinδ | 8.96046 | | | | | | 0.9105n |
| | sinαsinδ | 9.31149n | | | | | + 11,53 | − 8,10 |
| | m | 46,0815 | | | | | − 0,75 | − 5,91 |
| | sinαsinδ | +0,2049 | | | | | + 18,75 | + 0,16 |
| | | 46,2864 | | | | | + 29,53 | − 13,85 |
| | | 45 | | | | | | |
| | | 1388592 | | | | | | |
| | | 2314320 | | | | | | |
| | | +1626,0240 | | | 49,5 | | | 65,5 |
| | g35 n cosα | 2.84366n | | | 27 | | | 50,5 |
| | | − 697,70 | | | 76,5 | 22,5 | 116 | 15 |
| | | | | | 1.88366 | 1.35218 | 2.06446 | 1.17609 |
| | | | | | 9.74568n | 9.21420n | 9.92650n | 9.03813n |
| | | | | | 9.91942 | 420,45 | 9.72902 | |
| | | | | | 9.99410 | 273,29 | 9.99740 | |
| | | | | | 2.62372 | − 147,16 | 2.43662 | |

## 1885 Maerz 19.

| | | | | | | |
|---|---|---|---|---|---|---|
| *c(8,5) | Pk (11) | | Δα | s | Δδ | |
| 8h 48 | 22,75 | 8h 55 | 50,25 | +7m | 27,50 | − 147,16 |
| 48 | 22,50 | 55 | 50,25 | 7 | 27,75 | 150,48 |
| 9 0 | 43,25 | 9 8 | 11,25 | 7 | 28,00 | − 148,82 |
| 0 | 43,25 | 8 | 11,25 | +7 | 28,00 | − 2′ 28,″82 |
| | | 8 | 3,00 | | 3,25 | Δδ |
| 4) | | 9h 2 | 0,75 | +7 | 27,812n | |
| | | −1 | 22,6 | Corr | 0,009 | |
| | | 9h 0 | 38,15 | +7m | 27,803 | Δα-Zeit |
| 23 | 48 | 42,58 | | +1° 51 | 57,04 | Δα-Bogen |
| 9 | 11 | 55,57 | | | | |
| | | −1 | 30,41 | | | |
| 9h 10 | 25,2 | m Pk Dek | | | | |

beide unterhalb des Culm. *c(8,5) nördlich v. Pk (11)

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | 49,5 | | | 66,5 |
| | | | | | 25,5 | | | 49,5 |
| | | | | | 75 | 24 | | 116 17 |
| | | | | | 1.87506 | 1.38021 | | 1.23045 |
| | | | | | 9.73768n | 9.24223n | | 9.09249 |
| | | | | | 9.92318 | 423,30 | | 9.72902 |
| | | | | | 9.99327 | 272,82 | | 9.99665 |
| | | | | | 2.62665 | −150,48 | | 2.43587 |

28) 9h 38 59,2 Corr 0,004 +3m 12,049 Δα-Zeit
−1 18,9 +3m 12,049n Δα-Bogen
9h 37 40,3 +48′ 0,″74
23 40 49,48
9 56 50,82
−1 37,77
9h 55 13,0 m Pk Dek

4) 9h 2 0,75 +7 27,812n
−1 22,6 Corr 0,009
9h 0 38,15 +7m 27,803 Δα-Zeit
23 48 42,58 +1° 51 57,04 Δα-Bogen
9 11 55,57
−1 30,41
9h 10 25,2 m Pk Dek

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| *b (9,10) | Pk (11) | | Δα | s | Δδ | | | |
| 8h 35 | 45,00 | 8h 39 | 0,25 | +3m | 15,25 | − 110,″64 | | |
| 35 | 45,50 | 39 | 0,00 | | 14,50 | 116,14 | | |
| 42 | 58,50 | 46 | 13,25 | | 14,75 | 110,08 | | |
| 42 | 58,50 | 46 | 13,25 | | 14,75 | 108,62 | | |
| 53 | 51,00 | 57 | 5,50 | | 14,50 | 113,73 | | |
| 53 | 51,00 | 57 | 5,50 | | 14,50 | 112,80 | | |
| 9 3 | 8,50 | 9 6 | 22,50 | | 14,00 | 112,97 | | |
| 3 | 8,75 | 6 | 22,50 | | 13,75 | 109,67 | | |
| 8 | 37,50 | 11 | 50,50 | | 13,00 | 111,01 | | |
| 8 | 37,75 | 11 | 50,50 | | 12,75 | 110,55 | | |
| 14 | 37,25 | 17 | 50,50 | | 13,25 | 108,46 | | |
| 14 | 37,00 | 17 | 50,25 | | 13,25 | 102,67 | | |
| 34 | 39,00 | 38 | 11,00 | | 12,00 | 118,70 | | |
| 34 | 39,00 | 38 | 11,00 | | 12,00 | 111,68 | | |
| 41 | 42,00 | 44 | 54,25 | | 12,25 | 157,72 | | |
| 41 | 42,00 | 44 | 54,25 | | 12,25 | 14) | | |
| 54 | 48,25 | 57 | 59,50 | | 11,25 | −111,27 | | |
| 54 | 48,25 | 57 | 59,50 | | 11,25 | | | |
| 10 1 | 55,00 | 10 5 | 5,50 | | 10,50 | −1′ 51,″27 | | |
| 1 | 55,00 | 5 | 5,50 | | 10,50 | Δδ | | |
| 9 | 27,75 | 12 | 38,00 | | 10,25 | | | |
| 9 | 27,75 | 12 | 38,00 | | 10,25 | | | |
| 18 | 11,75 | 21 | 21,50 | | 9,75 | | | |
| 18 | 12,00 | 21 | 21,50 | | 9,50 | | | |
| 24 | 44,25 | 27 | 53,50 | | 9,25 | | | |
| 24 | 44,25 | 27 | 54,00 | | 9,75 | | | |
| 36 | 14,00 | 39 | 23,00 | | 9,00 | | | |
| 36 | 14,00 | 39 | 23,50 | +3 | 9,50 | | | |
| | | 851 | 38,00 | | 57,50 | | | |
| | | +240 | | | | | | |
| | | 1091 | 38,00 | 28) | +3 | 12,053n | | |

# (247) Eukrate.

## 1885 Maerz 22.

| | | |

# Eucrate.

1885 Maen 23.

* c (8,5) [last 5] nördlich vom Stern beide unterh

| | | | | | beide unterh | | | | | | beide unterh | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Num. L. | 48 | | 72,5 | | 47,5 | | 73,5 | | 46,5 | | 72 | | | |
| Nen. L. | 24 | | 58,5 | | 22 | | 59,5 | | 19,5 | | 58 | | | |
| D | 72 | 24 | 131 | 14 | 69,5 | 25,5 | 133 | 14 | 66 | 27 | 130 | 14 | | |
| g D | 1.85733 | 1.38021 | 2.11727 | 1.14613 | 1.84198 | 1.40654 | 2.12385 | | 1.81954 | 1.43136 | 2.11994 | | | |
| g f B | 9.71935 r | 9.24223 r | 9.97934 | 9.00820 | 9.70400 r | 9.26856 r | 9.98592 | | 9.68156 r | 9.29338 r | 9.97601 | | | |
| g t | 9.93029 | | 9.47894 | | 9.93582 r | | 9.39893 | | 9.94308 | | 9.50977 r | | | |
| g B | 9.99327 | 430,29 | 9.99773 | | 9.99239 | 434,92 | 9.99773 | | 9.99145 | 441,24 | 9.99773 | | | |
| g f B | 2.63376 | 153,77 | 2.18687 | | 2.63841 r | 127,90 | 2.10686 | | 2.64468 | 165,08 | 2.21770 r | | | |
| g t | | − 276,52 | | | | − 307,02 | | | | − 276,16 | | | | |
| | | beide oberh | | | beide oberh | | | | beide oberh | | | | | |
| Num. L. | 73 | | 49 | | 73 | 52 | 74 | 33,5 | | | | | | |
| Nen. L. | 59 | | 25 | | 59 | 28 | 60 | 28,5 | | | | | | |
| D | 132 | 14 | 74 | 24 | 132 14 | 80 24 | 134 14 | 82 | 25 | | | | | |
| g D | 2.12057 | 1.14613 | 1.86923 | 1.38021 | | 1.90309 | 2.12710 | 1.91381 | 1.39794 | | | | | |
| g f B | 9.98259 r | 9.00815 r | 9.73130 | 9.24228 | | 9.76516 | 9.98912 r | 9.77588 | 9.26001 | | | | | |
| g t | 9.44334 | | 9.92559 | | | 9.91007 | 9.94445 | 9.90436 | | | | | | |
| g B | 9.99773 | 141,67 | 9.99327 | | 141,67 | 9.99327 | 9.99773 | 9.99269 | 112,82 | | | | | |
| g f B | 2.15127 | 425,66 | 2.62906 | | 410,72 | 2.61354 | 2.05238 | 2.60725 | 404,81 | | | | | |
| g t | | − 283,99 | | | − 269,05 | | | | − 291,99 | | | | | |

1867,5
α 168° 39,99
δ + 4 39,81
f 35 1.54407
f cos α 9.99145 n
f n 1.30222
f sin α 9.29339
f sin δ 8.91155
f sin α sin δ 9.50716
m 46,0815
m sin α sin δ + 0,3215
46,4030
35
1392090
232015 0
+ 1624,1050
f 35 m cos α 2.83774 n
f 35 sin δ − 688,24

1885 April 15.

La mont N 574

| | | | | | |

# (247) Eukrate.

1885 April 15. Fortsetzung

| | beide oberh | | | | beide oberh | | | | beide oberh | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $p$ äuss. $l$. | 58,5 | | 55 | | 59,5 | | 55 | | 60,5 | | 56 | |
| $p$ inn. $l$. | 39 | | 32,5 | | 40 | | 33 | | 42 | | 34 | |
| $l$ D. | 97,5 | 19,5 | 87,5 | 22,5 | 99,5 | 19,5 | 88 | 22 | 102,5 | 18,5 | 90 | 22 |
| $\frac{1}{4}l\,\frac{1}{4}D$ | 1.98900 | 1.29003 | 1.94201 | 1.35218 | 1.99782 | | 1.94448 | | 2.01072 | 1.26717 | 1.95424 | |
| $\frac{1}{4}m + \frac{1}{4}\sin\beta$ | 9.85145 | 9.15248 | 9.80447 | 9.21464 | 9.86027 | | 9.80694 | | 9.87317 | 9.12962 | 9.81670 | |
| $\frac{1}{4}\cos\delta$ | 9.84750 | | 9.88675 | | 9.83813v | | 9.88504 | | 9.82289 | | 9.87796 | |
| $\frac{1}{4}\cos B$ | 9.99557 | 357,49 | 9.99409 | | 9.99557 | 349,87 | 9.99435v | | 9.99601v | 338,15 | 9.99435v | |
| $\frac{1}{4}\cos\delta\cos B$ | 2.55327 | 359,98 | 2.59104 | | 2.54390v | 388,69 | 2.58959v | | 2.52910v | 382,39 | 2.58251v | |
| Diff | | −32,49 | | | | −3882 | | | | −44,24 | | |

| | beide unterh | | | | beide oberh | | | |
|---|---|---|---|---|---|---|---|---|
| $p$ äuss. $l$. | 54 | | 56,5 | | 53 | | 56 | |
| $p$ inn. $l$. | 32 | | 37 | | 32 | | 38 | |
| $l$ D. | 86 | 22 | 93,5 | 19,5 | 85 | 21 | 94 | 18 |
| $\frac{1}{4}l\,\frac{1}{4}D$ | 1.93450 | | 1.97081 | 1.29003 | 1.92942 | 1.32222 | 1.97313 | 1.25527 |
| $\frac{1}{4}m + \frac{1}{4}\sin\beta$ | 9.79695 | | 9.83327 | 9.15249 | 9.79187 | 9.18467 | 9.83559 | 9.11773 |
| $\frac{1}{4}\cos\delta$ | 9.89176 | | 9.86457v | | 9.89498 | | 9.86254 | |
| $\frac{1}{4}\cos B$ | 9.99435 | 394,74 | 9.99557 | | 9.99486 | 398,15 | 9.99624 | |
| $\frac{1}{4}\cos\delta\cos B$ | 2.59631 | 371,83 | 2.57034v | | 2.60004 | 370,66 | 2.56898 | |
| Diff | | −22,91 | | | | −2749 | | |

| $*e(7)$ | Yarnall 1872,5 | Schj 1875,0 | Glasg 187 |
|---|---|---|---|
| $\alpha$ | 169 49,2 | 169 51,14 | 169 5 |
| $\delta$ | +4 32,72 | +4 32,90 | +4 3 |
| $\frac{1}{4}l$ | 25 1.39794 | 20 1.30103 | 15 1.176 |
| $\frac{1}{4}\cos\alpha$ | 9.99311 n | 9.99315 n | 9.993 |
| $\frac{1}{4}n$ | 1.30221 | 1.30220v | 1.302 |
| $\frac{1}{4}\sin\alpha$ | 9.24732 | 9.24597 | 9.244 |
| $\frac{1}{4}\cos\delta$ | 8.90195 | 8.90064 | 8.899 |
| $\frac{1}{4}n\sin\alpha\frac{1}{4}\cos\delta$ | 9.45148 | 9.44881v | 9.446 |
| $m$ | 46,0829 | 46,0836v | 46,08 |
| $n\sin\alpha\frac{1}{4}\cos\delta$ | + 0,2828 | + 0,2810v | + 027 |
| | 46,3657 | 46,3647 | 46,36 |
| | 25 | 20 | |
| $l.\Delta\alpha$ | +1159,14 | +927,294 | +695,4 |
| $\frac{1}{4}l.\cos\alpha$ | 2.69326 | n 2.59638v | n 2.4714 |
| $l.\Delta\delta$ | − 493,47 | − 394,80 | − 296,13 |

1885 April 17. (Bessel und Lamont 597 nicht benutzt)

$*e(7) = \frac{1}{6}(2\,\text{Yarnall} + 1\,\text{Schj} + 3\,\text{Glasgow})$ zu berechnen.

Yarnall № 4764 (6,5) 2 Ref, 4 Det

1860,0 $11^h 18\ 38{,}20$ $+4°\ 37'\ 50{,}10$

169 39 24,50

+ 19 19,14 — 8 13,47

Yarn. 1885 169° 58 53,64 +4° 29 36,63

Schjellerup № 4141 (7,5) 1 Beob

1865,0 $11^h 18\ 53{,}62$ $+4°\ 36'\ 11{,}60$

169 43 24,30

+ 15 27,29 — 6 34,80

1885,0 169° 58 51,59 +4° 29 36,80

" 107,28 73,26

" 157,68 106,80

Σ 6) 316,55 216,86

1885,0 169° 58' 52,76 +4° 29' 36,14

+ 27,83 — 13,64

April 17 169° 59 20,59 +4° 29 22,50

April 17 — 50 47,46 — 1 17,44

33 45,4 169° 8' 33,13 +4° 28' 5,06

m. Dec. $11^h 16^m 34{,}21$ (247) Eukrate (ehrerbietig 11,5) 3 Ref. mit $*e(7)$

Glasgow № 2944 (7) 3 Ref, 6 Det

1870,0 $11^h 19^m 9{,}14$ $+4°\ 34'\ 31{,}73$

169 47 17,10

+ 11 35,46 — 4 56,13

1885,0 169° 58 53,56 +4° 29 35,60

1885 April 17,5

| | $q+\alpha$ | $u+\alpha$ |
|---|---|---|
| $f$ | +13,77 | 226° 18' | 49° 48' |
| $\frac{1}{4}q$ | 1.0332 | | 8.8940 |
| $q$ | 56 19 | 9.8394 n | 9.8099 |
| $\frac{1}{4}R$ | 1.2820 | 1.0332 | 1.2820 |
| $R$ | 239 49 | 9.8591 n | 9.8830 |
| $\frac{1}{4}i$ | 0.8558 n | 8.8954 | 0.0013 |
| | | | 0.8558 n |
| | | +13,77 | − 7,15 |
| | | − 0,61 | − 7,46 |
| | | +14,67 | + 0,97 |
| | | + 27,83 | − 13,64 |

| (247) Eukrate | $*e$ | |
|---|---|---|
| | +4° 28,1 | +4° 29,4 |
| | 9.99868 | 9.99866v |
| | 7.86251 | 7.86249 |

(247) Eukrate (ehrerbietig 11,5)

| | $*e(7)$ | $\Delta\alpha$ | $\Delta\delta$ |
|---|---|---|---|
| $12^h 6\ 34{,}50$ | $12^h 9\ 57{,}50$ | − 3m 23,00 | − 71,4 |
| 6 34,50 | 9 57,50 | 23,00 | 78,4 |
| 12 6,00 | 15 28,50 | 22,50 | 81,7 |
| 12 6,00 | 15 28,50 | 22,50 | 22,3 |
| 43 28,50 | 46 52,50 | 24,00 | 3) |
| 43 28,50 | 46 52,50 | − 3 24,00 | − 77,1 |
| | | | − 1' 17 |
| 6) 124 18,00 | | 19,00 | |
| $12^h 20\ 43{,}00$ | | 6) − 3 23,166v | Δδ |
| − 2 10,9 | | Corr 0,002v | |
| 12 18 32,1 | | − 3m 23,164 | Δα = 2 |
| 1 43 2,59 | | − 50' 47,"46 | Δα = 3 |
| 10 35 29,51 | | | |
| − 1 44,10 | | | |
| $10^h 33^m 45{,}4$ | m. Dec. | | |

(247) Eukrate südlich vom $*e(7)$ beide oberh

| | beide oberh | | | | beide oberh | | | | beide unterh | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $p$ äuss. $l$. | 59 | | 65 | | 58 | | 65 | | 63 | | 53 | |
| $p$ inn. $l$. | 39 | | 49 | | 38 | | 49 | | 45 | | 33 | |
| $l$ D. | 98 | 20 | 114 | 16 | 96 | 20 | 114 | 16 | 108 | 18 | 86 | 20 |
| $\frac{1}{4}l\,\frac{1}{4}D$ | 1.99123 | 1.30103 | 2.05690 | 1.20412 | 1.98227 | | | | 2.03342 | 1.25527 | 1.93450 | 1.30103 |
| $\frac{1}{4}m + \frac{1}{4}\sin\beta$ | 9.85374 | 9.16354 | 9.91939v | 9.06661v | 9.84478 | | | | 9.89593 | 9.11778 | 9.79699v | 9.16352 |
| $\frac{1}{4}\cos\delta$ | 9.84515 | | 9.74574 | | 9.85409 | | | | 9.79032v | | 9.89173 | |
| $\frac{1}{4}\cos B$ | 9.99533v | 355,37 | 9.99703 | | 9.99533v | 362,76 | | | 9.99623v | 313,88 | 9.99533v | |
| $\frac{1}{4}\cos\delta\cos B$ | 2.55068v | 283,77 | 2.45297 | | 2.55962v | 283,77 | | | 2.49676 | 395,60 | 2.59726v | |
| Diff | | −71,60 | | | | −78,99 | | | | −81,72 | | |

$*e(7,0)$ nach 1 neuen Beob. v. Dr Kürtner in Berl. Corr 255

$*e(7,0)$ 1885,0 $11^h 19\ 55{,}40$ $+4°\ 29'\ 35{,}8$

# (247) Eucrate.

## 1885 April 18.

Glasgow N 2964 (7.8) 3 Rd, 4 Dec (Bessel and Lamont 620 nicht benutzt)

1870,0 $11^h 22\ 54{,}98$ $+4°\ 29'\ 45{,}42$

$170°\ 43'\ 44{,}70$

$+11\ 35{,}00$ $-4\ 56{,}96$

1885,0 $170°\ 55'\ 19{,}70$ $+4°\ 24'\ 48{,}46$

$+27{,}93$ $-13{,}51$

1. Ord April 18 $170°\ 55'\ 47{,}63$ $+4°\ 24'\ 34{,}95$

1885 April 18 $-1\ 56\ 25{,}18v$ $+52{,}76$

$55^m\ 56{,}6$ $168°\ 59'\ 22{,}44v$ $+4°\ 25'\ 27{,}71$

92 Def $11^h\ 15^m\ 57{,}50$ (247) Eucrate 6V mit $\pm f$ sehr schwach 11,5 Gr.

1877,5

$\alpha$ $170°\ 49{,}54'$

$\delta$ $+4\ 27{,}28$

$\log 15$ 1.17609

$\log\cos\alpha$ 9.99441 n

$\log n$ 1.30220

$\log\sin\alpha$ 9.20259v

$\log\delta$ 8.89156v

$\log n\sin\alpha\Delta\delta$ 9.39636

$m$ 46,0844

$\sin\alpha\Delta\delta$ $+0{,}2491$

46,3335

15

463335

231,6675

$+695{,}0025$

$\log 15\, m\cos\alpha$

$\log 15\Delta\delta$ 2.47270 n

$15\Delta\delta$ $-296''{,}96$

1885 April 18,4

| | $\Delta\alpha$ | $\Delta\delta$ |
|---|---|---|
| | $+13{,}85$ | $-7{,}09$ |
| | $-0{,}61$ | $-7{,}37$ |
| | $+14{,}69$ | $+0{,}95$ |
| | $+27{,}93$ | $-13{,}51$ |

| | $\eta+\alpha$ | $\eta+\alpha$ |
|---|---|---|
| | $227°\ 7'$ | $49°\ 49'$ |
| | | 8.8862 |
| | 9.8328 n | 9.8097 |
| | 1.0345 | 1.2825 |
| | 9.8650 n | 9.8831 |
| | 8.8875 | 0.0013 |
| | | 0.8522 n |

$f$ $+13''{,}85$

$\log f$ 1.0345

$g$ 56 12

$\log g$ 1.2825

$\eta$ 238 54

$\log\eta$ 0.8522 n

1885 April 18 N.O. recht leidet, etwas Mondschein

(247) Eucrate

| (schwach 11,5) | $\pm f$ (7.8) | $\Delta\alpha$ | $\Delta\delta$ |
|---|---|---|---|
| $11^h\ 19\ 2{,}50$ | $11^h\ 26\ 47{,}00$ | $-7^m\ 44{,}50$ | $+48''{,}89$ |
| 19 2,50 | 26 47,00 | 44,50 | 58,59 |
| 29 9,00 | 36 54,00 | 45,00 | 51,19 |
| 29 9,00 | 36 54,00 | 45,00 | 50,10 |
| 41 18,00 | 49 3,50 | 45,50 | 47,59 |
| 41 18,00 | 49 3,50 | 45,50 | 60,21 |
| 53 24,50 | 12. 1 11,00 | 46,50 | 316,57 |
| 53 24,50 | 1 11,00 | 46,50 | b) |
| 12 3 31,50 | 11 17,50 | 46,00 | $+52''{,}76$ |
| 3 31,50 | 11 17,75 | 46,25 | $\Delta\delta$ |
| 14 8,50 | 21 55,00 | 46,50 | |
| 14 8,50 | 21 55,00 | $-7$ 46,50 | |
| 321 8,00 | | 68,25 | |
| 12) 11 26 45,7 | | 12) $-7$ 45,687v | |
| +20 | | Corr. 0,008v | |
| $11^h$ 46 45,7 | | $-7$ 45,679 | $\Delta\alpha$ in Zeit |
| $-2$ 12,1 | | $-1°\ 56'\ 25{,}18v$ | $\Delta\alpha$ in Bogen |
| $11^h$ 44 33,6 | | | |
| 1 46 59,14 | | | |
| 9 57 34,46 | | | |
| $-1$ 37,89 | | | |
| $9^h$ 55 56,6 | | | |
| m. Z. Def | | | |

(247) $+4°\ 25'{,}5$ $\pm f$ $+4°\ 24'{,}6$

$\log\cos\delta$ 9.99870v 9.99871v

7.86253v 7.86254v

(247) Eucrate nördl. vom + f (7.8) beide oberh

| | | | | |
|---|---|---|---|---|
| g. äuss. S. | 63 | | 58 | |
| g. inn. S. | 45 | | 38 | |
| S. D. | 108 | 18 | 96 | 20 |
| log D | 2.03342 | 1.25527 | 1.98227 | 1.30103 |
| log B | 9.89595v | 9.11780v | 9.84481v | 9.16357v |
| log A | 9.79029 | | 9.85406 | |
| log C | 9.99623v | 313,85 | 9.99533v | |
| log A cos B | 2.49672v | 362,74 | 2.55959v | |
| Diff | | $+48{,}89$ | | |

beide oberh

| | | | | |
|---|---|---|---|---|
| | 64 | 58 | | |
| | 46 | 38 | | |
| | 110 | 18 | 96 | 20 |
| | 2.04139 | | | |
| | 9.90392v | | | |
| | 9.77666 | | | |
| | 9.99623v | 304,15 | | |
| | 2.48309v | 362,74 | | |
| | | $+58{,}59$ | | |

beide oberh

| | | | | |
|---|---|---|---|---|
| | 64 | 59 | | |
| | 46 | 39 | | |
| | 110 | 18 | 98 | 20 |
| | | | 1.99123 | |
| | | | 9.85377v | |
| | | | 9.84511 | |
| | | 304,15 | 9.99533v | |
| | | 355,34 | 2.55064 | |
| | | $+51{,}19$ | | |

beide unterh

| | | | | |
|---|---|---|---|---|
| g. äuss. S. | 54,5 | | 60 | |
| g. inn. S. | 33 | | 42 | |
| S. D. | 87,5 | 21,5 | 102 | 18 |
| log D | 1.94201 | 1.33244 | 2.00860 | 1.25527 |
| log B | 9.80454v | 9.19497v | 9.87114v | 9.11781v |
| log A | 9.88671 | | 9.82542 | |
| log C | 9.99460v | 390,40 | 9.99623v | |
| log A cos B | 2.59151v | 340,30 | 2.53185v | |
| Diff | | $+50{,}10$ | | |

beide unterh

| | | | | |
|---|---|---|---|---|
| | 55 | | 60 | |
| | 34 | | 42,5 | |
| | 89 | 21 | 102,5 | 17,5 |
| | 1.94939 | 1.32222 | 2.01072 | 1.24304 |
| | 9.81192v | 9.18475v | 9.87326v | 9.10558v |
| | 9.88150 | | 9.82278 | |
| | 9.99486 | 385,98 | 9.99644 | |
| | 2.58856 | 338,39 | 2.52942 | |
| | | $+47{,}59$ | | |

beide unterh

| | | | | |
|---|---|---|---|---|
| | 53 | | 60 | |
| | 31 | | 42 | |
| | 84 | 22 | 102 | 18 |
| | 1.92428 | 1.34242 | | |
| | 9.78681v | 9.20495v | | |
| | 9.89806 | | | |
| | 9.99435 | 400,51 | | |
| | 2.60261 | 340,30 | | |
| | | $+60{,}21$ | | |

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(247) Eucrate stand 1886 i. § II nach dem April und 1887 i. § III sehr südlich, wurde 1887 in Cordoba, Tacubaya und in Decatur 1887 auch in Rom und Wien beobachtet.

Erscheinung 1888 zu 1889 bei sehr nördlicher Declination in Europa gut sichtbar.

## 1888 November 5.

(9) Argelander Oeltzen 9774 (Z 190,15)

1842,0 $9^h\ 8^m\ 24{,}20$ $+49°\ 14'\ 38{,}50$

$137°\ 6'\ 3{,}00$

$+47\ 20{,}50$ $-11\ 20{,}12$

(9) 1888,0 $137°\ 53'\ 23{,}50$ $+49°\ 3'\ 13{,}38$

$+27{,}16$ $-21{,}04$

1. Ord Nov 5 $137°\ 53'\ 50{,}66$ $+49°\ 2'\ 52{,}34$

1888 Nov 5 $-1\ 9\ 15{,}53$ $-14{,}81$

$52^m\ 14{,}0$ $136°\ 44'\ 35{,}13$ $+49°\ 2'\ 37{,}53$

m. Z. Def $9^h\ 6\ 53{,}34$ (247) Eucrate (schnell) 6V $\sin\alpha\Delta\delta$ sehr

$-0{,}30$ $+3{,}23$

1865,0

$\alpha$ $137°\ 24'72$

$\delta$ $+49\ 8{,}89$

$\log\Delta\alpha$ 1.66276

$\log\cos\alpha$ 9.86760 n

$\log n$ 1.30222v

$\log\sin\alpha$ 9.82972

$\log\Delta\delta$ 0.06310

$\log n\sin\alpha\Delta\delta$ 1.19504v

$m$ 46,0808

$\sin\alpha\Delta\delta$ $+15{,}6691$

61,7499

46

2469996

370 4994

$46\Delta\alpha$ $+2840{,}4954$

2.83258v n

$46\Delta\delta$ $-680''{,}12$

1888 Nov 5,4

$f$ $+23''{,}33$

$\log f$ 1.0356

$g$ 20 29

$\log g$ 1.2920

$\eta$ 43 37

$\log i$ 0.7683

| | $\eta+\alpha$ | $H+\alpha$ |
|---|---|---|
| | $158°\ 22'$ | $181°\ 30'$ |
| | | 9.8781 |
| | 9.9683 n | 9.9999 n |
| | 1.0356 | 1.2920 |
| | 9.5666 | 8.4179 n |
| | 0.0617 | 0.1835 |
| | | 0.7683 |
| | $+23{,}33$ | $+3{,}84$ |
| | $+4{,}61$ | $-10{,}09$ |
| | $-0{,}78$ | $-14{,}79$ |
| | $+27{,}16$ | $-21{,}04$ |

Eucr $+49°\ 2'6$ $\pm a$ $+49°\ 2'9$

9.81656v 9.81652v

7.68039v 7.68035v

(247) Eucrate (schnell) $\pm a$ (9) $\Delta\alpha$ $\Delta\delta$

| | | | |
|---|---|---|---|
| $1^h\ 27^m\ 32{,}00$ | $1^h\ 32^m\ 10{,}50$ | $-4^m\ 38{,}50$ | $-21''{,}80$ |
| 27 32,00 | 32 10,50 | 38,50 | 19,34 |
| 34 59,75 | 39 38,00 | 38,25 | 14,69 |
| 35 0,00 | 39 38,00 | 38,00 | 10,69 |
| 46 34,50 | 51 12,25 | 37,75 | 11,75 |
| 46 34,50 | 51 12,25 | 37,75 | 10,58 |
| 2 3 16,50 | 2 7 53,00 | 36,50 | 88,85 |
| 3 16,00 | 7 52,50 | 36,50 | b) |
| 10 29,50 | 15 5,25 | 35,75 | $-14''{,}81$ |
| 10 29,50 | 15 5,50 | 36,00 | $\Delta\delta$ |
| 18 20,50 | 22 56,00 | 35,50 | |
| 18 20,50 | 22 56,00 | 3550 | |
| 282 25,25 | | 84,50 | |
| +360 | | 12) $-4$ 37,042 | |
| 12) 642 25,25 | | Corr 0,006v | |
| $1^h\ 53\ 32{,}1$ | | $-4$ 37,035v | $\Delta\alpha$ in Zeit |
| +0 59,4 | | $-1°\ 9'\ 15{,}53$ | $\Delta\alpha$ in Bogen |
| $1^h\ 54\ 31{,}5$ | | | |
| 15 0 30,38 | | | |
| 10 54 1,12 | | | |
| $-1\ 47{,}14$ | | | |
| $10^h\ 52^m\ 14{,}0$ m. Z. Def | | | |

1885 Apr 20 an Wash. Apr 22 an Krueger, Apr 26 an Tietjen

# (247) Eurrade.

1888 Nov 5 Fortsetzung

(247) Eurrade (schwach 11te Gr.) südlich vom * a(9) beide oben

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 82 | | 85 | | 81,5 | | 84 | | 83 | | 84,5 | |
| | 44 | | 53 | | 46 | | 54 | | 47 | | 53,5 | |
| | 126 | 38 | 138 | 32 | 127,5 | 35,5 | 138 | 38 | 130 | 36 | 138 | 31 |
| | 2.10037 | 1.57978 | 2.13988 | 1.50515 | 2.10551 | 1.55023 | | 1.47712 | 2.11394 | 1.55630 | | 1.49136 |
| | 9.78076 | 9.26017 | 9.82023 | 9.18550 | 9.78590 | 9.23062 | | 9.15747 | 9.79433 | 9.23669 | | 9.17171 |
| | 9.90161 | | 9.87526 | | 9.89860 | | 9.87526 | | 9.89342 | | 9.87526 | |
| | 9.99268 | 402,25 | 9.99484 | | 9.99363 | 400,34 | 9.99546 | | 9.99344 | 395,42 | 9.99516 | |
| | 2.60449 | 380,45 | 2.58030 | | 2.60243 | 381,00 | 2.58092 | | 2.59706 | 380,73 | 2.58662 | |
| | | −21,80 | | | | −19,34 | | | | −14,69 | | |

beide unten

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 91 | | 88 | | 91 | | 88,5 | | 91 | | 88 | |
| | 63 | | 61 | | 63 | | 61 | | 61 | | 60 | |
| | 153 | 29 | 149 | 27 | 154 | 28 | 149,5 | 27,5 | 152 | 30 | 148 | 28 |
| | 2.18469 | 1.46240 | 2.17319 | 1.43136 | 2.18752 | 1.44716 | 2.17464 | 1.43933 | 2.18184 | 1.47712 | 2.17026 | 1.44716 |
| | 9.86508 | 9.14292 | 9.85354 | 9.11171 | 9.86791 | 9.12755 | 9.85499 | 9.11968 | 9.86223 | 9.15751 | 9.85061 | 9.12751 |
| | 9.83268 | | 9.84534 | | 9.82934 | | 9.84382 | | 9.83593 | | 9.84835 | |
| | 9.99577 | 345,66 | 9.99633 | | 9.99606 | 343,25 | 9.99620 | | 9.99546 | 348,92 | 9.99606 | |
| | 2.53865 | 356,35 | 2.55187 | | 2.53560 | 355,00 | 2.55022 | | 2.54160 | 358,60 | 2.55461 | |
| | | −10,69 | | | | −11,75 | | | | −10,58 | | |

---

1888 November 7.

1863,0

Argelander De № 9747, 9748 cfr 2190 N 12 und 14

$9^h\ 6\ 13{,}53 + 49°\ 22\ 48{,}8$

13,86 474

$9^h\ 6\ 13{,}695 + 49°\ 22\ 48{,}10$ 1842,0

$136°\ 33\ 25{,}42$

$+47\ 31{,}48 \quad -11\ 14{,}18$

$137°\ 20'\ 56{,}90 + 49°\ 11\ 33{,}92$ 1888,0

$+28{,}98 \quad -21{,}33$

$137\ 21\ 25{,}88 + 49°\ 11\ 12{,}59$

$+9\ 39{,}83 \quad +1\ 3{,}25$

$137\ 31\ 5{,}71 + 49°\ 12'\ 15{,}84$ *

$9^h\ 10^m\ 4{,}38$ (247) Eurrade (11,3) 8 V mit * b(8.9)

C. w. Par. −0,29 +3,51

Ger. Sgt. in Circ 329 −3,21 −0,10

| | | | | |
|---|---|---|---|---|
| α | 136° 57,19 | ½46 cos α | 2.82877 n | |
| δ | +49 17,18 | | −674,18 | |
| ½46 | 1.66276 | 1888 Nov 7,5 | g+α | H+α |
| ½ cos α | 9.86379 n | f | +28,58 | 157° 45' | 178° 52' |
| ½n | 1.30222 | ½g | 1.0401 | | 9.8790 |
| ½ sin α | 9.83416 | g | 20 24 | 9.9664 n | 9.9999 n |
| ½ tg δ | 0.06522 | ½k | 1.2934 | 1.0401 | 1.2934 |
| ½ sin α tg δ | 1.20161 | k | 41 31 | 9.5782 | 8.2962 |
| m | 46,0808 | ½i | 0.7523 | 0.0637 | 0.1847 |
| n sin α tg δ | +15,9078 | | | | 0.7523 |
| | 61,9886 | | +23,58 | + 3,69 | |
| | 46 | | + 4,81 | − 10,15 | |
| | 2479544 | | + 0,59 | − 14,87 | |
| | 371 93 16 | | +28,98 | − 21,33 | |
| | +2851,4756 | | | | |

*b +49° 11,2 Eurr +49° 12,3

9.81531 9.81515

7.67914 7.67898

nur ziemlich heiter schwach

| * b (8.9) | (247) Eurrade (11,3) | Δα | ∫ | Δδ |
|---|---|---|---|---|
| 1h 11 39,75 | 1h 12 17,50 | +0m | 37,75 | + 58,"3 |
| 11 39,75 | 12 17,50 | | 37,75 | 56,62 |
| 15 3,50 | 15 41,25 | | 37,75 | 59,73 |
| 15 3,25 | 15 41,50 | | 38,25 | 60,20 |
| 18 39,50 | 19 18,00 | | 38,50 | 66,89 |
| 18 39,25 | 19 17,75 | | 38,50 | 61,78 |
| 23 41,50 | 24 20,00 | | 38,50 | 69,15 |
| 23 42,00 | 24 20,00 | | 38,00 | 73,33 |
| 30 16,50 | 30 55,00 | | 38,50 | 506,02 |
| 30 16,50 | 30 55,00 | | 38,50 | 8) |
| 38 36,00 | 39 15,25 | | 39,25 | + 63,"23 |
| 38 36,00 | 39 15,00 | | 39,00 | + 1' 3,"2 |
| 43 35,25 | 44 15,00 | | 39,75 | Δδ |
| 43 35,25 | 44 14,75 | | 39,50 | |
| 47 24,50 | 48 4,00 | | 39,50 | |
| 47 24,50 | 48 4,00 | | 39,50 | |
| | 468 11,50 | | 138,50 | |

16) 1h 29 15,7 16)

+ 0 55,5 + 38,"656

1h 30 11,2 Corr 0,001

15 8 23,50 + 38,"655 Δα = Zeit

10 21 47,70 + 1 41,"86 + 9' 39,"83 Δα = Bogen

10h 20 5,8 m 2224

---

*b(8.9) südlich von (247) Eurrade (11,3) beide oben

| | | | | |
|---|---|---|---|---|
| | 87,5 | | 97 | |
| | 56,5 | | 69 | |
| | 144 | 31 | 166 | 28 |
| | 2,15836 | 1.49136 | 2.22011 | 1.44716 |
| | 9.83750 | 9.17050 | 9.89909 | 9.12614 |
| | 9.86084 | | 9.78508 | |
| | 9.99518 | 368,32 | 9.99608 | |
| | 2.56622 | 310,00 | 2.49136 | |
| | | +58,32 | | |

beide oben

| | | | | |
|---|---|---|---|---|
| | 87 | | 95,5 | |
| | 55,5 | | 69 | |
| | 142,5 | 31,5 | 164,5 | 26,5 |
| | 2.15381 | 1.49831 | 2.21617 | 1.42325 |
| | 9.83295 | 9.17745 | 9.89515 | 9.10223 |
| | 9.86485 | | 9.79158 | |
| | 9.99503 | 371,60 | 9.99650 | |
| | 2.57008 | 314,98 | 2.49828 | |
| | | +56,62 | | |

beide oben

| | | | | |
|---|---|---|---|---|
| | 87 | 96 | | |
| | 55,5 | 69,5 | | |
| | 142,5 | 31,5 | 165,5 | 26,5 |
| | | | 2.21880 | |
| | | | 9.89778 | |
| | | | 9.78728 | |
| | | 371,60 | 9.99650 | |
| | | 311,87 | 2.49398 | |
| | | | +59,73 | |

beide oben

| | | | | |
|---|---|---|---|---|
| | 87 | 96 | | |
| | 56 | 70 | | |
| | 143 | 31 | 166 | 26 |
| | 2.15534 | | | 1.41497 |
| | 9.83448 | | | 9.09395 |
| | 9.86352 | | 9.78508 | |
| | 9.99518 | | 9.99663 | |
| | 2.56890 | | 2.49191 | |
| | | | | 370,59 |
| | | | | 310,39 |
| | | | | 2.49165 |
| | | | | +60,20 |

beide unten

| | | | | |
|---|---|---|---|---|
| | 96 | 86 | | |
| | 70 | 34 | | |
| | 166 | 26 | 140 | 32 |
| | 2.22011 | 1.41497 | 2.14613 | 1.50515 |
| | 9.89925 | 9.09411 | 9.82511 | 9.18413 |
| | 9.78482 | | 9.87139 | |
| | 9.99663 | 310,21 | 9.99487 | |
| | | 377,10 | 2.57646 | |
| | | +66,89 | | |

beide unten

| | | | |
|---|---|---|---|
| 96 | 86,5 | | |
| 70 | 56 | | |
| 166 26 | 142,5 | | 30,5 |
| | 2.15381 | | 1.48490 |
| | 9.83279 | | 9.16328 |
| | 9.86499 | | |
| 310,21 | 9.99534 | | |
| 371,99 | 2.57053 | | |
| +61,78 | | | |

## 1888 Nov 7 Fortsetzung.

| | * b (3.9) südlich von (247) Eurrate (11,8) beide unten | | | beide unt | |
|---|---|---|---|---|---|
| äuss. l. | 96,5 | 86 | | 97 | 86 |
| äus. l. | 70,5 | 54,5 | | 71 | 54 |
| l D | 167 26 | 140,5 | 31,5 | 168 26 | 140 32 |
| l gD | 2.22272 | 2.14768 | 1.49831 | 2.22581 | |
| + gf sB | 9.90186 | 9.82666 | 9.17729 | 9.90445 | |
| cos t | 9.78032 | 9.87014 | | 9.77571 | |
| cos B | 9.99664 | 9.99503 | 307,01 | 9.99663 | 303,77 |
| f cos t cos B | 2.48715 | 2.57537 | 376,16 | 2.48254 | 377,10 |
| Diff | | | + 69,15 | | + 73,33 |

## 1888 Nov 30.

Oc № 10279 (9) = Argelander Zone 99, № 103
18420 9h 40 36,11 +51° 45 27,20
145° 9 1,65
+ 46 19,60 − 12 40,62
1888,0 145 55 21,25 +51 32 46,58
+ 39,13 − 25,45
Nov 30 145° 56' 0"38 +51° 32' 21"13
8 Nov 30 −2 6 36,77 −0 3,80
8h 2,0 143° 49' 23"61 +51° 32' 17"33
Diff 9h 35m 17,57 (247) Eurrate (11) 6 Vmal * C (9)
C.w. Par. −0"36 +3"18

| 1888 Nov 30,4 | G + α | N + α |
|---|---|---|
| f + 26,77 | 164° 59' | 165° 10' |
| fg 1.0916 | | 9.8938 |
| g 19 4 | 9.98499 x | 9.98577 n |
| fk 1.3062 | 1.0916 | 1.3062 |
| k 19 15 | 9.98135 | 9.98083 |
| fè 0.4612 | 0.1001 | 0.2063 |
| + 26,77 | + 1,80 | 0.4612 |
| + 4,03 | − 11,93 | Eurr +51° 32,3 * C +51° 32,35 |
| + 8,33 | − 15,32 | 9.79378 9.79378 |
| + 39,13 | − 25,45 | 7.65761 7.65760 |

* C (9) 1865,0
α 145° 32,19
δ + 51 39,11
fA6 1.66276
f cos α 9.91613 n
fn 1.30222 n
f sin α 9.75272 n
fg δ 0.10178
fsin α g δ 1.15671
m 46,0808
+ 14,3453
60,4261
46
2417044
3625566
+ 2779,6006
2.8117 m
− 760,62

(247) Eurrate (11) * C (9) Δα Δδ
2h 12 19,00 2h 20 46,50 −8m 27,50 −12,43
12 18,75 20 46,50 27,75 −17,51
23 22,00 31 49,00 27,00 −0,92 +3,63
23 21,75 31 49,00 27,25 −3,19 +7,60
36 49,00 45 15,75 26,75 −34,05
36 49,25 45 15,75 26,50 +11,23
59 11,00 3 7 37,25 26,25 −22,82
59 11,00 7 36,75 25,75 6) −3"80
3 11 25,50 19 51,50 26,00 Δδ
11 25,25 19 51,50 26,25
27 24,75 35 50,00 25,25
27 24,75 35 50,00 25,25
341 2,00 77,50
+ 240 12) −8m 26,458
581 2,00 0,007
12) 2h 48 25,2 −8m 26,451 Δα = Zeit
+0 21,0 −2° 6' 36,77 Δα = Bogen
2h 48 46,2
16 39 4,28
10 9 41,92
− 1 39,87
10h 8 2,0 m 2h 20f

## (247) Eurrate (11) nahe auf d. Par. von * C (9) beide oben

| | | | | | beide oben | | | | beide oben | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| äuss. l. | 96 | | 97 | | 96 | | 98 | | 98 | | 97,5 | |
| äus. l. | 60,5 | | 65 | | 60,5 | | 66 | | 65,5 | | 66,5 | |
| l D | 156,5 | 35,5 | 162 | 32 | 156,5 | 35,5 | 164 | 32 | 163,5 | 32,5 | 164 | 31 |
| l gD | 2.19451 | 1.55023 | 2.20952 | 1.50515 | | | 2.21484 | | 2.21352 | 1.51188 | | 1.49136 |
| + gf sB | 9.85212 | 9.20784 | 9.86712 | 9.16275 | | | 9.87244 | | 9.87113 | 9.16949 | | 9.14896 |
| cos t | 9.84682 | | 9.83029 | | | | 9.82381 | | 9.82543 | | 9.82381 | |
| cos B | 9.99426 | 355,86 | 9.99535 | | | 355,86 | 9.99535 | | 9.99520 | 339,50 | 9.99565 | |
| f cos t cos B | 2.55128 | 343,43 | 2.53584 | | | 338,35 | 2.52936 | | 2.53084 | 338,58 | 2.52966 | |
| Diff | | − 12,43 | | | | − 17,51 | | | | − 0,92 | | |

## beide unten

| | | | | | beide unten | | | | beide unten | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| äuss. l. | 100 | | 98,5 | | 97 | | 97 | | 94,5 | | 96 | |
| äus. l. | 70 | | 70,5 | | 67,5 | | 69 | | 66,5 | | 68 | |
| l D | 170 | 30 | 169 | 28 | 164,5 | 29,5 | 166 | 28 | 161 | 28 | 164 | 28 |
| l gD | 2.23045 | 1.47712 | 2.22789 | 1.44716 | 2.21617 | 1.46982 | 2.22011 | | 2.20683 | 1.44716 | | |
| + gf sB | 9.88806 | 9.13473 | 9.88549 | 9.10476 | 9.87378 | 9.12743 | 9.87771 | | 9.86444 | 9.10477 | | |
| cos t | 9.80254 | | 9.80630 | | 9.82212 | | 9.81704 | | 9.83342 | | 9.82381 | |
| cos B | 9.99592 | 322,61 | 9.99645 | | 9.99606 | 337,59 | 9.99645 | | 9.99645 | 346,80 | 9.99645 | |
| f cos t cos B | 2.50867 | 325,80 | 2.51295 | | 2.51838 | 333,96 | 2.52369 | | 2.54007 | 339,20 | 2.53046 | |
| Diff | | − 3,19 | | | | + 3,63 | | | | + 7,60 | | |

## 1888 December 3.

(8) Argelander Bonn Beob VI Band, S. 262
1855,0 9h 40m 23,55 +52° 4' 59,90
145° 5 53,25
+ 33 22,14 − 9 4,58
3) 1888,0 145° 39' 15"39 +51° 55' 55"32
+ 41,64 − 25,76
cos Dec 3 145° 39 57,03 +51° 55 29,56
8 Dec 3, − 1 27 16,23 − 1 16,26
6h 34,7 144° 12 40,80 +51° 54' 13"30
12 Dec 9h 36 50,72 (247) Eurrate (11) 10 Vmal mit * d (8)
C.w. Par. −0"37 +3"21

| 1871,5 | | 1888 Dec 3,4 | G + α | N + α |
|---|---|---|---|---|
| α | 145° 22'57 | f + 27,23 | 164° 29' | 162° 4' |
| δ | + 52° 0,46 | fg 1.0984 | | 9.8961 |
| f33 | 1.51851 | g 18 50 | 9.9839 n | 9.9784 n |
| f cos α | 9.91534 n | fk 1.3074 | 1.0984 | 1.3074 |
| fn | 1.30221 | k 16 25 | 9.4274 | 9.4884 |
| f sin α | 9.75449 | fè 0.3956 | 0.1061 | 0.2100 |
| fg δ | 0.10731 | + 27,23 | + 1,53 | 0.3956 |
| fsin α g δ | 1.16401 | + 4,28 | − 12,09 | Eurr +51° 54'2 * d +51° 55'5 |
| m | 46,0826 | + 10,13 | − 15,20 | 9.79028 9.79007 |
| sin α g δ | + 14,5883 | + 41,64 | − 25,76 | 7.65411 7.65390 |
| | 60,6709 | | | |
| | 33 | | | |
| | 1820127 | | | |
| | 1820127 | | | |
| 33 Δα | + 2002,1397 | | | |
| | 2.73606 n | | | |
| 33 Δδ | − 544"58 | | | |

(247) Eurrate (11) nahe d (8) beide oben.

| | | | | |
|---|---|---|---|---|
| g. äuss. l. | 93 | | 106,5 | |
| g. äus. l. | 59 | | 80,5 | |
| l D | 152 | 34 | 187 | 26 |
| fl gD | 2.18184 | 1.53148 | 2.27184 | 1.41497 |
| + f sin t sin B | 9.83595 | 9.18559 | 9.92574 | 9.06887 |
| cos t | 9.86222 | | 9.73093 | |
| cos B | 9.99484 | 369,20 | 9.99699 | |
| f cos t cos B | 2.56726 | 274,24 | 2.43812 | |
| Diff | | − 94,96 | | |

# (247) Eurrate.

## 1888 December 3 Fortsetzung

(247) Eurrate (11) südlich vom * d (8) beide oben

| | | | |
|---|---|---|---|
| g. äuss. L. | 93 | | 106,5 |
| g. inn. L. | 61 | | 80,5 |
| L D | 154 | 32 | 187 26 |
| ϕ L ϕ D | 2.18752 | 1.50515 | |
| ϕ L ϕ B | 9.84163 | 9.15926 | |
| cos t | 9.85707 | | |
| cos B | 9.99543v | 365,35 | |
| cos t cos B | 2.56270v | 274,24 | |
| Diff | | −91,11 | |

beide unten

| | | | |
|---|---|---|---|
| g. äuss. L. | 106,5 | 95 | |
| g. inn. L. | 80,5 | 63 | |
| L D | 187 26 | 158 | 32 |
| ϕ L ϕ D | 2.27184 | 2.19866 | 1.50515 |
| ϕ L ϕ B | 9.92595 | 9.85256 | 9.15905 |
| cos t | 9.73041 | 9.84636v | |
| cos B | 9.99687 | 9.99544 | 273,91 |
| cos t cos B | 2.43760 | 2.55200v | 356,45 |
| Diff | | | −82,54 |

beide unten

| | | | |
|---|---|---|---|
| g. äuss. L. | 102 | 91,5 | 91 |
| g. inn. L. | 76 | 60,5 | 56 |
| L D | 178 26 | 152 31 | 147 35 |
| ϕ L ϕ D | 2.25042 | 2.18184 | 2.16732 |
| ϕ L ϕ B | 9.90453 | 9.83574 | 9.82143 |
| cos t | 9.77556 | 9.86241 | 9.87432v |
| cos B | 9.99699 | 9.99572 | 9.99452 |
| cos t cos B | 2.48275 | 2.56833 | 2.57904v |
| Diff | 303,91 | 370,11 | −66,20 |

beide oben

| | | | |
|---|---|---|---|
| | 96 | 107 | |
| | 64 | 81 | |
| | 160 32 | 188 26 | |
| | 2.20412 | 2.27416 | |
| | 9.85823 | 9.92806 | |
| | 9.84037 | 9.72514 | |
| | 9.99543v | 9.99699v | |
| | 2.54660v | 2.43233v | |
| | 331,56 | | |
| | 270,60 | | |
| | −80,96 | | |

beide unten

| | | | |
|---|---|---|---|
| | 107 | 93 | |
| | 77 | 61 | |
| | 180 26 | 154 32 | |
| | 2.25527 | 2.18752 | |
| | 9.90938 | 9.84142 | |
| | 9.76650 | 9.85726 | |
| | 9.99699 | 9.99544 | |
| | 2.47369 | 2.56290 | |
| | | 297,64 | |
| | | 365,51 | |
| | | −67,87 | |

beide oben

| | | | |
|---|---|---|---|
| | 91 | | |
| | 56 | | |
| | 147 | 35 | 174 |
| | 2.16732 | 1.54407 | 2.24055 |
| | 9.82143 | 9.19818 | 9.89445 |
| | 9.87432v | | 9.79272 |
| | 9.99452 | 379,35 | 9.99651 |
| | 2.57904v | 315,81 | 2.49943 |
| | | −63,54 | |

beide unten

| | | | |
|---|---|---|---|
| | 107 | 95 | |
| | 81 | 64 | |
| | 188 26 | 159 | 31 |
| | 2.27416 | 2.20140 | 1.49136 |
| | 9.92827 | 9.85580 | 9.14526 |
| | 9.72458v | 9.84351 | |
| | 9.99699 | 9.99572 | 270,25 |
| | 2.43177v | 2.54943 | 354,35 |
| | | | −84,10 |

beide unten

| | | | |
|---|---|---|---|
| | 103 | 91,5 | |
| | 77 | 61 | |
| | 180 26 | 152,5 | 30,5 |
| | | 2.18327 | 1.48430 |
| | | 9.83717 | 9.13820 |
| | | 9.86114 | |
| | | 9.99586 | |
| | 297,64 | | |
| | 369,15 | 2.56720 | |
| | −71,51 | | |

beide oben

| | | | |
|---|---|---|---|
| | 92 | 102 | |
| | 60 | 74 | |
| | 152 32 | 176 28 | |
| | 2.18184 | 2.24551 | |
| | 9.83595 | 9.89941 | |
| | 9.86222 | 9.78454v | |
| | 369,70 | 9.99543v | 9.99651 |
| | 309,92 | 2.56785v | 2.49125v |
| | −59,78 | | |

## 1888 December 4.

* e (9) Alle 10093 = 299,85

* e (9) 18420 $9^h 29^m 15{,}88^s$ $+52° 14' 3{,}80''$

142° 18 58,20

+ 47 18,51 − 12 13,95

* e (9) 1888,0 143° 6 16,71 +52° 1 49,85

+ 44,40 − 25,44

* e red. Dec 4 143 7 1,11 +52 1 24,41

1888 Dec 4 +1 12 5,74 + 29,35

26h 1,3 144° 19 6,85 +52° 1 53,76 #

* 24 Dez $9^h 37$ 16,46 (247) Eurrate (11) 10 Vgl mit * e (9)

C. w. Par −0,38 + 2,83

Red im Circ 331 −5,90 −0,08

| | | | |
|---|---|---|---|
| 1888 Dec 4,4 | f + 27,30 | 161° 52' | 158° 34' |
| | f g 1.1006 | | 9.8967 |
| | g 18 46 | 9.9779 z | 9.9689 m |
| | f h 1.3078 | 1.1006 | 1.3078 |
| | h 15 28 | 9.4931 | 9.5628 |
| | f i 0.3710 | 0.1077 | 0.2110 |
| | | 0.3710 | + 1,45 |
| | | + 5,03 | −14,98 |
| | | + 12,07 | −14,91 |
| | | + 44,40 | − 25,44 |

| | | |
|---|---|---|
| f 46 n cos α | 2.86567 n | |
| 46 a δ | − 733,95 | |
| | | α 142° 42,62 |
| | | δ + 52 7,95 |
| f 46 | 1.66276 | |
| f cos α | 9.90068v n | |
| f n | 1.30222v | |
| f sin α | 9.78236 | |
| f g δ | 0.10926 | |
| f sin α f δ | 1.19384v | |
| m | 46,0303 | |
| n sin α f δ | + 15,6259 | |
| | 61,7067 | |
| | 46 | |
| | 2468268 | |
| | 3702402 | |
| | + 2838,5082 | |
| | beid oben | |
| | 9.78918v | 9.78903v |
| | 7.65294v | 7.65286v |

* e (9) 18650

α 142° 42,62

δ + 52 7,95

f 46 1.66276

f cos α 9.90068v n

f n 1.30222v

f sin α 9.78236

f g δ 0.10926

f sin α f δ 1.19384v

m 46,0303

n sin α f δ + 15,6259

61,7067

46

2468268

3702402

+ 2838,5082

Eurr + 52° 1,9

9.78903v

7.65286v

* e (9) rücklich von (247) Eurrate (11) beide oben

| | | | |
|---|---|---|---|
| g. äuss. L. | 88,5 | 94 | |
| g. inn. L. | 54,5 | 59,5 | |
| L D | 143 | 34 | 153,5 |
| ϕ L ϕ D | 2.15534 | 1.53148 | 2.18611 |
| ϕ L ϕ B | 9.80828v | 9.18442v | 9.83897v |
| cos t | 9.88410v | | 9.85951 |
| cos B | 9.99486v | 388,30 | 9.99471 |
| cos t cos B | 2.58916v | 366,79 | 2.56442 |
| Diff | | + 21,51 | |

beide oben

| | | | |
|---|---|---|---|
| | 91,5 | | |
| | 56,5 | | |
| | 148 | 35 | 154 33 |
| | 2.17026 | 1.54407 | 2.18752 1.51851 |
| | 9.82320v | 9.19701v | 9.84038v 9.17137v |
| | 9.87292v | | 9.85822 |
| | 9.99455 | 378,16 | 9.99517 |
| | 2.57767v | 366,09 | 2.56359 |
| | | + 12,07 | |

beide unten

| | | | |
|---|---|---|---|
| | 93,5 | | |
| | 60,5 | | |
| | 154 | 33 | |
| | 2.18752 | 1.51851 | |
| | 9.84038v | 9.17137v | |
| | 9.85822 | | |
| | 9.99517 | | |
| | 2.56359 | | |

(247) Eurrate (n) * d (8)

| | | | | Δα | Δδ |
|---|---|---|---|---|---|
| 1h 52 | 5,50 | 1h 57 | 55,75 | −5m 50,25 | − 94,1 |
| 52 | 5,50 | 57 | 55,75 | 50,25 | 94, |
| 2 0 | 54,50 | 2 6 | 44,25 | 49,75 | 80,9 |
| 0 | 54,50 | 6 | 44,25 | 49,75 | 84,1 |
| 24 | 3,00 | 29 | 52,50 | 49,50 | 82,5 |
| 24 | 3,00 | 29 | 52,50 | 49,50 | 67,8 |
| 36 | 22,50 | 42 | 11,50 | 49,00 | 71,5 |
| 36 | 22,50 | 42 | 12,00 | 49,50 | 66,2 |
| 45 | 36,75 | 51 | 26,50 | 49,75 | 63,5 |
| 45 | 36,75 | 51 | 26,50 | 49,75 | 59,7 |
| 57 | 42,50 | 3 3 | 31,50 | 49,00 | 762,5 |
| 57 | 42,50 | 3 | 31,50 | 49,00 | 10) |
| 3 6 | 40,50 | 12 | 29,75 | 49,25 | −76,26 |
| 6 | 40,50 | 12 | 29,50 | 49,00 | −1' 26,7 |
| 15 | 59,50 | 21 | 47,75 | 48,25 | Δδ |
| 15 | 59,50 | 21 | 47,75 | 48,25 | |
| 28 | 32,50 | 34 | 20,75 | 48,25 | |
| 28 | 33,00 | 34 | 20,75 | 47,75 | |
| 40 | 17,00 | 46 | 5,00 | 48,00 | |
| 40 | 17,00 | 46 | 5,00 | 48,00 | |
| 616 | 29,00 | | | 181,75 | |
| +360 | | | | 20) | |
| 976 | 29,00 | | | −5m 49,087v | |
| 20) 2h 48 | 49,45 | | | Corr 0,005v | |
| + 0 | 19,2 | | | −5m 49,082 | Δα : 2il |
| 2 49 | 6,65 | | | −1° 27 16,23 | Δα : Bogn |
| 16 50 | 53,96 | | | | |
| 9 58 | 12,69 | | | | |
| −1 | 37,99 | | | | |
| $9^h 56$ | 34,7 | m 24 Dez | | | |

## 1888 Dec 4

| * e (9) | (247) Eurrate (10) | Δα | Δδ |
|---|---|---|---|
| 2h 10 7,75 | 2h 14 55,00 | +4m 47,25 | +21,0 |
| 10 7,75 | 14 55,25 | 47,50 | 12,0 |
| 27 18,75 | 32 6,75 | 48,00 | 21,6 |
| 27 18,75 | 32 6,75 | 48,00 | 18,0 |
| 37 38,25 | 42 25,75 | 47,50 | 28,3 |
| 37 38,25 | 42 25,75 | 47,50 | 28,9 |
| 3 11 32,75 | 3 16 20,75 | 48,00 | 31,5 |
| 11 32,75 | 16 20,75 | 48,00 | 29,2 |
| 20 43,00 | 25 31,25 | 48,25 | 46,4 |
| 20 43,00 | 25 31,25 | 48,25 | 55,6 |
| 29 7,25 | 33 56,50 | 49,25 | 10) 293,4 |
| 29 7,25 | 33 56,50 | 49,25 | |
| 36 24,00 | 41 13,00 | 49,00 | +29,3 |
| 36 24,00 | 41 13,00 | 49,00 | Δδ |
| 46 9,50 | 50 57,50 | 48,00 | |
| 46 9,50 | 50 57,50 | 48,00 | |
| 4 1 24,50 | 4 6 13,50 | 49,00 | |
| 1 24,50 | 6 13,50 | 49,00 | |
| 14 31,25 | 19 20,75 | 49,50 | |
| 14 31,25 | 19 20,75 | 49,50 | |
| 566 | 1,75 | 167,75 | |
| −120 | | 20) | |
| 446 | 1,75 | +4 48,387v | |
| 20) $3^h 22$ | 18,9 | 0,004v | |
| + 0 | 15,2 | +4m 48,383 | Δα : 2il |
| 3 22 | 34,1 | +1° 12 5,74 | Δα : Bogn |
| 16 54 | 50,52 | | |
| 10 27 | 44,18 | | |
| −1 | 42,83 | | |
| $10^h 26$ | 1,3 | m 24 Dez | |

Dec 4 en Innenfeld

# (247) Eurrake.

## 1888 Dec 4.

*e(9) südlich von (247) Eurrake (11) beide oben

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g. äuss. L. | 90,5 | | 95,5 | | 95,5 | | 91,5 | | 96 | | 90,3 | | 94,5 | | 89 | | | |
| g. inn. L. | 57,5 | | 62,5 | | 64,5 | | 60,5 | | 65 | | 57,5 | | 62,5 | | 55 | | | |
| Σ D | 148 | 33 | 158 | 33 | 160 | 31 | 152 | 31 | 161 | 31 | 148 | 33 | 158 | 31 | 144 | 34 | | |
| g Σ D | 2.17026 | 1.51851 | 2.19866 | | 2.20412 | 1.49136 | 2.18184 | | 2.20683 | | 2.17026 | | 2.19866 | | 2.15836 | | | |
| g Σ B | 9.82320v | 9.17145v | 9.85152v | | 9.85706v | 9.14430v | 9.83470v | | 9.85977v | | 9.82312v | | 9.85160v | | 9.81122v | | | |
| g cos t | 9.87292v | | 9.84742v | | 9.84163v | | 9.86332 | | 9.83368 | | 9.87299 | | 9.84734v | | 9.88200 | | | |
| g cos B | 9.99517 | 378,70 | 9.99517 | | 9.99574 | 352,84 | 9.99574 | | 9.99574 | 350,45 | 9.99517 | | 9.99574 | 357,50 | 9.99486v | | | |
| cos t cos B | 2.57829v | 357,10 | 2.55279v | | 2.54757v | 370,90 | 2.56926 | | 2.54462 | 378,75 | 2.57836 | | 2.55328v | 386,42 | 2.58706v | | | |
| Diff | | + 21,60 | | | | + 18,06 | | | | + 28,30 | | | | + 28,92 | | | | |

beide unten — beide unten — beide oben — beide oben

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g. äuss. L. | 94 | | 88 | | 91 | 85 | 95 | 103 | | | 96,5 | 105,5 | | | | | | |
| g. inn. L. | 62 | | 52 | | 59 | 49 | 68 | 73 | | | 65,5 | 76,5 | | | | | | |
| Σ D | 156 | 32 | 140 | 36 | 150 | 32 | 134 | 36 | 158 | 32 | 176 | 30 | 162 | 31 | 182 | 29 | | |
| g Σ D | 2.19312 | 1.50515 | 2.14613 | 1.55630 | 2.17609 | 2.12710 | 2.19866 | 2.24551 | 1.47712 | 2.20952 | 2.26007 | 1.46240 | | | | | | |
| g Σ B | 9.84606v | 9.15809v | 9.79899v | 9.20916v | 9.82903v | 9.77996v | 9.85160v | 9.89837v | 9.12998v | 9.86246v | 9.91293v | 9.11526v | | | | | | |
| g cos t | 9.85285v | | 9.89042 | | 9.86818 | 9.90206 | 9.84734v | 9.78629 | | 9.83567v | 9.75946 | | | | | | | |
| g cos B | 9.99545v | 361,83 | 9.99423 | 374,82 | 9.99545v | 9.99423 | 9.99545v | 9.99601 | 357,27 | 9.99574 | 9.99628 | 348,03 | | | | | | |
| cos t cos B | 2.55851 | 393,42 | 2.59485 | 404,10 | 2.57382v | 2.60649 | 2.55300 | 2.49250 | 310,81 | 2.54161v | 2.46594 | 292,37 | | | | | | |
| Diff. | | + 31,59 | | + 29,28 | | | | | + 46,46 | | | + 55,66 | | | | | | |

## 1889 Januar 1.

*f 1865,5

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| α | 142° 30,71 | g Σ n cos α | 2.87385v n | | | | | | | | | | | | | | | |
| δ | + 55 27,19 | | − 747,93 | | | | | | | | | | | | | | | |
| g Σ | 1.67210 | 1889 Jan 14 | g + α | H + α | | | | | | | | | | | | | | |
| g cos α | 9.89953 n | f − 14,15 | 290° 39' | 132° 9' | | | | | | | | | | | | | | |
| g n | 1.30222v | g g 0.8607 | | 9.9152 | | | | | | | | | | | | | | |
| g f α | 9.78433 | g 147 43 | 9.5474 | 9.8268 n | | | | | | | | | | | | | | |
| g t δ | 0.16210 | g k 1.3092 | 0.8607 | 1.3092 | | | | | | | | | | | | | | |
| g sin a δ | 1.24865v | H 349 13 | 9.9712 n | 9.8700 | | | | | | | | | | | | | | |
| m | 46,0809 | g i 0.2191 n | 0.1604 | 0.2452 | | | | | | | | | | | | | | |
| m sin a δ | + 17,7278 | − 14,15 | − 0,94 | 0.2191 n | | | | | | | | | | | | | | |
| | 63,8087 | − 9,82 | + 2,56 | Euer + 55° 21,9 | f + 55° 20,8 | | | | | | | | | | | | | |
| | 47 | + 26,57 | − 11,25 | 9.75461 | 9.75482 | | | | | | | | | | | | | |
| | 2552348 | + 2,60 | − 9,63 | 7.61844 | 7.61865 | | | | | | | | | | | | | |
| | 4466609 | | | | | | | | | | | | | | | | | |
| | + 2999,0089 | | | | | | | | | | | | | | | | | |

(247) Eurrake (10,3) * f (9) — Δα — Δδ

| | | | | | |
|---|---|---|---|---|---|
| 3h 42 | 42,50 | 3h 47 | 56,00 | − 5s 43,50 | + 56,"75 |
| 42 | 12,00 | 47 | 56,00 | 44,00 | 61,63 |
| 50 | 53,50 | 56 | 37,00 | 43,50 | 64,84 |
| 50 | 53,50 | 56 | 37,00 | 43,50 | 69,40 |
| 59 | 33,00 | 4 5 | 17,50 | 44,50 | 64,44 |
| 59 | 33,00 | 5 | 17,50 | 44,50 | 70,01 |
| 4 13 | 17,50 | 19 | 2,00 | 44,50 | 27,07 |
| 13 | 17,50 | 19 | 2,00 | 44,50 | 6) |
| 22 | 10,75 | 27 | 56,00 | 45,25 | + 64,"51 |
| 22 | 10,50 | 27 | 56,00 | 45,50 | |
| 34 | 50,50 | 40 | 36,00 | 45,50 | |
| 34 | 50,50 | 40 | 36,00 | 45,50 | |
| 445 | 54,75 | | | 12) 6,25 | |
| 360 | | | | − 5 44,521 | |
| 12) 4h 85 | 54,75 | | | Corr 0,009 | |
| 4h 7 | 9,5v | | | − 5s 44,512 | Δα in Zeit |
| − 0 | 38,0 | | | − 1° 26' 7,"68 | Δα in Bogen |
| 4 6 | 31,5v | | | | |
| 18 45 | 14,14 | | | | |
| 9 21 | 17,41 | | | | |
| − 1 | 31,95 | | | | |
| 9h 19 | 45,5 | | | | |

(247) Eurrake (10,3) nördl v * f (9) — beide oben — beide oben

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g. äuss. L. | 105 | | 92 | | 107 | | 94 | | 108 | | 95 | | | | | | | |
| g. inn. L. | 70 | | 52 | | 73 | | 54 | | 76 | | 57 | | | | | | | |
| Σ D | 175 | 35 | 144 | 40 | 180 | 34 | 148 | 40 | 184 | 32 | 152 | 38 | | | | | | |
| g Σ D | 2.24304 | 1.54407 | 2.15836 | 1.60206 | 2.25527 | 1.53148 | 2.17026 | | 2.26482 | 1.50515 | 2.18184 | 1.57978 | | | | | | |
| g Σ B | 9.86148 | 9.16251 | 9.77701 | 9.22071 | 9.87371 | 9.14992 | 9.78891 | | 9.88326 | 9.12359 | 9.80049 | 9.19843 | | | | | | |
| g cos t | 9.93679 | | 9.90373 | | 9.82221 | | 9.89680 | | 9.80947 | | 9.88944 | | | | | | | |
| g cos B | 9.99536 | 348,62 | 9.99392 | | 9.99563 | 337,32 | 9.99392 | | 9.99613 | 327,95 | 9.99451v | | | | | | | |
| cos t cos B | 2.54235 | 405,37 | 2.60785 | | 2.52804 | 398,95 | 2.60092 | | 2.51580 | 392,79 | 2.59415v | | | | | | | |
| Diff | | + 56,75 | | | | + 61,63 | | | | + 64,84 | | | | | | | | |

beide unten — beide unten — beide oben

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g. äuss. L. | 105 | | 114 | | 104,5 | | 114 | | 101 | | 112 | | | | | | | |
| g. inn. L. | 71 | | 88 | | 71 | | 86 | | 66 | | 84 | | | | | | | |
| Σ D | 176 | 34 | 202 | 26 | 175,5 | 33,5 | 200 | 28 | 167 | 35 | 196 | 28 | | | | | | |
| g Σ D | 2.24551 | | 2.30535 | 1.41497 | 2.24428 | 1.52504 | 2.30103 | 1.44716 | 2.22272 | | 2.29226 | | | | | | | |
| g Σ B | 9.86395 | | 9.92400 | 9.03362 | 9.86272 | 9.14348 | 9.91968 | 9.06581 | 9.84116 | | 9.91091 | | | | | | | |
| g cos t | 9.83398 | | 9.73513 | | 9.83539 | | 9.74512 | | 9.85750 | | 9.76352 | | | | | | | |
| g cos B | 9.99563 | 346,59 | 9.99745 | | 9.99575 | 347,81 | 9.99704 | | 9.99536 | 365,65 | 9.99704 | | | | | | | |
| cos t cos B | 2.53981v | 277,19 | 2.44278 | | 2.54134 | 283,37 | 2.45236 | | 2.56306 | 295,64 | 2.47076 | | | | | | | |
| Diff | | + 69,40 | | | | + 64,44 | | | | + 70,01 | | | | | | | | |

Eph. nach m. Zt. V  +0,"96  +6,"19

C.w. Par −0,"44  +2,"10  (−7,89  −0,04)

# (247) Eucrate.

## 1889 Januar 5.

Hels. d.G.Z.

*g (7.8) AOe 9827 (8) nach dg Z 83 N 112 und Krueger Z 47 (7.8) und Z 79 (7.5)

1842,0 $9^h$ 12 25,46 +55 51 38,90 — Z 47 $9^h$ 14 49,98 +55 43 24,9
138° 6 21,90 — Z 79 9 14 50,21 +55 43 26,9
+51 22,92 — 11 46,34 Kr. 1875,0 9 14 50,095 +55 43 25,90
1889,0 138° 57 44,82 +55 39 52,56 138° 42 31,42
1889,0 94,83 109,08 + 15 16,04 — 3 31,36
Σ 139,75 161,64 Kr. 1889,0 138° 57 47,46 +55° 39 54,54
(Mittel+2 Kr) 1889,0 138° 57 46,58 +55° 39 53,88 1889 Jan 5,1 $g+\alpha$ $h+\alpha$
+ 6,39 — 8,82 f — 13,51 285° 57' 124° 25
1889 Jan 5 138° 57 52,97 +55° 39 45,06 lg 0.8442 9.9169
1889 Jan 5 +1 12 20,26 + 38,50 g 146 59 9.4390 9.7522 n
$9^h$ 28 32,8 140° 10' 13,23 +55° 40' 23,56 gh 1.3081 0.8442 1.3081
n Z 247 $9^h$ 20 40,88 (247) Eucrate V *g h 345 27 9.9830 n 9.9164
C.w. Par. — 0,43 + 1,69 gi 0.3460 n 0.1656 0.2487
(— 7,68 — 0,09) — 13,51 — 1,25 0.3460 n
Eff. n. m. El. V + 1,00 + 2,23 — 9,83 + 1,92
+29,73 — 9,49
*g (7.8) südlich von (247) Eucrate (10,3) beide oben + 6,39 — 8,82 beide oben

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g äuss. I. | 82,5 | | 93,5 | | 83,5 | | 93 | | | | | |
| g ein. I. | 30 | | 48,5 | | 34 | | 49 | | | | | |
| I. D. | 112,5 | 52,5 | 142 | 45 | 117,5 | 49,5 | 142 | 44 | | | | |
| gI gD | 2.05115 | 1.72016 | 2.15229 | 1.65321 | 2.07004 | 1.69461 | | 1.64345 | | | | |
| gI+gI B | 9.66631 | 9.33532 | 9.76733 | 9.26825 | 9.68520 | 9.30977 | | 9.25849 | | | | |
| g cos t | 9.94741 | | 9.90894 | | 9.94193 | | 9.90894 | | | | | |
| g cos B | 9.98958 | 443,30 | 9.99240 | | 9.99076 n | 439,43 | 9.99274 | | | | | |
| g cos t cos B | 2.64719 | 408,83 | 2.61154 | | 2.64289 n | 409,15 | 2.61188 | | | | | |
| Diff | | + 34,97 | | | | + 30,28 | | | | | | |
| | | beid oben | | | | beide oben | | | | beide unten | | |
| g äuss. I. | 86,5 | | 86,5 | | 90,5 | | 96 | | 105 | | 98 | |
| g ein. I. | 38 | | 55,5 | | 43 | | 58,5 | | 73,5 | | 60,5 | |
| I. D. | 124,5 | 48,5 | 142 | 41 | 133,5 | 47,5 | 154,5 | 37,5 | 178,5 | 31,5 | 158,5 | 37,5 |
| gI gD | 2.09517 | 1.68574 | 2.18184 | 1.61278 | 2.12548 | 1.67669 | 2.18893 | 1.57403 | 2.25164 | 1.49831 | 2.20003 | 1.57403 |
| gI+gI B | 9.71033 | 9.30090 | 9.79688 | 9.22782 | 9.74064 | 9.29185 | 9.80397 | 9.18907 | 9.86680 | 9.11347 | 9.81507 | 9.18907 |
| g cos t | 9.93361 | | 9.89180 | | 9.92165 | | 9.88709 | | 9.83067 | | 9.87918 | |
| g cos B | 9.99114 | 431,47 | 9.99371 | | 9.99151 | 420,11 | 9.99475 | | 9.99631 | 344,49 | 9.99475 | |
| g cos t cos B | 2.63495 | 394,19 | 2.59571 | | 2.62336 | 390,88 | 2.59204 | | 2.53718 | 383,82 | 2.58413 | |
| Diff | | + 37,28 | | | | + 29,23 | | | | + 39,33 | | |
| | | beid unten | | | | beide unten | | | | beide unten | | |
| g äuss. I. | 104 | | 96 | | 103 | | 93 | | 99 | | 88,5 | |
| g ein. I. | 73 | | 57 | | 70 | | 54 | | 66 | | 46,5 | |
| I. D. | 176 | 32 | 153 | 39 | 173 | 33 | 147 | 39 | 165 | 33 | 135 | 42 |
| gI gD | 2.24551 | 1.50515 | 2.18469 | 1.59106 | 2.23805 | 1.51851 | 2.16732 | | 2.21748 | | 2.13033 | 1.62325 |
| gI+gI B | 9.86067 | 9.12031 | 9.79973 | 9.20610 | 9.85321 | 9.13367 | 9.78236 | | 9.83264 | | 9.74537 | 9.23829 |
| g cos t | 9.83769 | | 9.88994 | | 9.84569 | | 9.90068 | | 9.86512 | | 9.91956 | |
| g cos B | 9.99618 | 350,00 | 9.99432 | | 9.99595 | 356,32 | 9.99432 | | 9.99595 | 372,62 | 9.99340 | |
| g cos t cos B | 2.54407 | 393,06 | 2.59446 | | 2.55184 | 402,90 | 2.60520 | | 2.57127 | 419,91 | 2.62316 | |
| Diff | | + 43,06 | | | | + 46,58 | | | | + 47,29 | | |

## 1889 Januar 6.

Hels. d.G.Z.

*g (8.9) AOe 9947 (8.9) nach dg Z 83 N 122 und Krueger Z 64 (7.5) und Z 118 (8.1)

1842,0 $9^h$ 20 11,28 +55° 37 46,30 Z 64 1875,0 $9^h$ 22 34,64 +55° 49 14,2
140° 2 49,20 Z 118 " 9 22 34,34 +55 49 14,3
+ 50 50,62 — 12 7,03 Mittel Kr. 1875 $9^h$ 22 34,49 +55° 49 14,25
1889,0 140 53 39,82 +55 45 39,27 140° 38 37,35
1889,0 87,46 72,56 + 15 6,38 — 3 37,47
Σ 127,28 112,83 Kr. 1889 140° 53 43,73 +55 45 36,78
(Mittel+2 Kr) 1889,0 140° 53 42,43 +55° 45 37,61
+ 6,38 — 8,96
1889 Jan 6 140° 53 48,81 +55° 45 28,65
1889 Jan 6 — 1 5 6,76 v — 1 15,58
$9^h$ 20 22,9 139° 48 42,04 +55° 44 13,07
n Z 247 $9^h$ 19 14,80 (247) Eucrate (10,3) 6' Kegel mit h (8)
C.w. Par — 0,43 + 1,73
(— 7,98 — 0,01)
Eff. n. m. El. V + 0,72 + 3,09

1889 Jan 6,4 $g+\alpha$ $h+\alpha$
f — 13,35 287° 42' 125° 25'
lg 0.8399 9.9174
g 146 48 9.4829 9.7631 n
gh 1.3077 0.8399 1.3077
h 344 31 9.9789 n 9.9111
gi 0.3725 n 0.1671 0.2497
— 13,35 — 1,33 0.3725 n
— 9,68 + 2,10 Eucr + 55 44,2 h + 55 45,5
+29,41 — 9,73 9.75050 9.75026 v
+ 6,38 — 8,96 7.61433 7.61409 v

*g (7.8) (247) Eucrate (10,3) Δα Δδ

| | | | | | |
|---|---|---|---|---|---|
| *g | 1865,5 dg | 1882,0 Kr | | | |
| α | 138° 32,06 | 138° 50,16 | $3^h$ 51 14,25 | $3^h$ 56 5,25 | + $4^m$ 51,00 ✓ |
| δ | + 55 45,76 | + 55 41,67 | 51 14,00 | 56 5,75 | 51,75 |
| g 47 | 1.67210 | g 14 1.14613 | 58 33,75 | 4 3 25,50 | 51,75 |
| g cos α | 9.87469 n | 9.87670 n | 58 34,00 | 3 25,50 | 51,50 |
| g n | 1.30222 v | 1.30219 | 4 9 59,75 | 14 41,25 | 50,50 |
| g f α | 9.82097 | 9.81837 | 9 51,00 | 14 41,25 | 50,25 |
| g f δ | 0.16713 v | 0.16603 | 19 25,25 | 24 15,00 | 49,75 |
| g n f α f δ | 1.29033 | 1.28659 | 19 25,50 | 24 14,75 | 49,25 |
| m | 46,0809 | 46,0857 | 34 15,50 | 39 4,00 | 48,50 |
| n f α f δ | + 19,5132 | 19,3459 | 34 15,25 | 39 4,25 | 49,00 8) |
| | 65,5941 | 65,4316 | 42 45,00 | 47 33,00 | 48,00 |
| | 47 | 14 | 42 45,00 | 47 33,50 | 48,50 |
| | 2623764 | 654316 | 51 4,50 | 55 52,50 | 48,00 |
| | 459587 | 2617264 | 51 4,00 | 55 52,00 | 48,00 |
| | + 3082,9227 | + 916,0424 | 5 9 27,50 | 5 14 14,25 | 46,75 |
| | 2.84901 n | 2.32502 n | 9 27,00 | 14 14,25 | 47,25 |
| | — 706,"34 | — 211,"36 | | 510 22,00 | 149,75 |
| | | *g + 55° 39,7 v | Eucr + 55° 40,4 | 16) | 16) |
| | | 9.75133 | 9.75121 | $4^h$ 31 53,9 | + 4 49,359 |
| | | 7.61516 | 7.61504 | — 47,3 | Corr 0,008 |
| | | | | 4 31 6,6 | + $4^m$ 49,351 Δα in Zeit |
| | | | | 19 1 0,39 | + 1° 12 20,26 Δα in Bog |
| | | | | 9 30 6,21 | |
| | | | | — 1 33,39 | |
| | | | | $9^h$ 28 32,82 | n Z 247 |

| | | |
|---|---|---|
| *g (7.8) | 1865,5 dg | 1882,0 Kr |
| α | 140° 28,24 | 140 46,18 |
| δ | + 55 51,71 | + 55 47,4 |
| g 47 | 1.67210 | 14 1.146 |
| g cos α | 9.88722 v n | 9.889 |
| g n | 1.30222 v | 1.302 |
| g f α | 9.80378 | 9.801 |
| g f δ | 0,16875 | 0.167 |
| g n f α f δ | 1.27475 v | 1.270 |
| m | 46,0809 | 46,08 |
| n f α f δ | + 18,8259 | + 18,65 |
| | 64,9068 | 64,74 |
| | 47 | |
| | 2596272 | 647414 |
| | 454376 | 25896 |
| | + 3050,6196 | + 906,379 |
| | 2.86155 n | 2.3374 |
| | — 727,"03 | — 217,"47 |

1889 Januar 6 Fortsetzung

(247) Eurrate (103) rückwärts von *h(8) beide unten

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| g. äuss. l. | 180,5 | | 95 | | 109,5 | beide unten | 93 | | |
| g. inn. l. | 78 | | 55 | | 77 | | 54 | | |
| l. D | 188,5 | 32,5 | 150 | 40 | 186,5 | 32,5 | 147 | 39 | |
| l l g D | 2.27531 | 1.51188 | 2.17609 | 1.60206 | 2.27068 | | 2.16732 | 1.59106 | |
| g. A g. B | 9.89964 | 9.12621 | 9.79018 | 9.21615 | 9.88501 | | 9.78141 | 9.20515 | |
| g cos t | 9.80018 | | 9.89602 | | 9.80698 | | 9.90123 | | |
| g cos B | 9.99608 | 320,96 | 9.99404 | | 9.99608 | 326,03 | 9.99434 | | |
| cos t cos B | 2.30646 | 398,35 | 2.60026 | | 2.51326 | 403,43 | 2.60577 | | |
| Diff | | −77,39 | | | | −77,40 | | | |
| | | beide unten | | | | beide oben | | | |
| g. äuss. l. | 107,5 | | 91 | | 98 | | 116 | | |
| g. inn. l. | 74,5 | | 50 | | 58 | | 79 | | |
| l D | 182 | 33 | 141 | 41 | 156 | 40 | 190 | 32 | |
| l l g D | 2.26007 | 1.51851 | 2.14922 | 1.61278 | 2.19312 | 1.60206 | 2.27875 | 1.50515 | |
| g. A g. B | 9.87440 | 9.13284 | 9.76331 | 9.22687 | 9.80745 | 9.21639 | 9.89284 | 9.11924 | |
| g cos t | 9.82133 | | 9.91101 | | 9.88469 | | 9.79525 | | |
| g cos B | 9.99596 | 336,90 | 9.99374 | | 9.99403 | 388,08 | 9.99621 | | |
| cos t cos B | 2.52749 | 412,05 | 2.61495 | | 2.58892 | 317,44 | 2.50166 | | |
| Diff | | −75,15 | | | | −70,64 | | | |
| | | beide oben | | | | beide oben | | | |
| g. äuss. l. | 99 | | 112 | | 101 | | 114 | | |
| g. inn. l. | 61 | | 82 | | 63 | | 84 | | |
| l D | 160 | 38 | 194 | 30 | 164 | 38 | 198 | 30 | |
| l l g D | 2.20412 | 1.57978 | 2.28780 | 1.47712 | 2.21484 | | 2.29667 | | |
| g. A g. B | 9.81845 | 9.19411 | 9.90189 | 9.09124 | 9.82917 | | 9.91076 | | |
| g cos t | 9.87663 | | 9.78026 | | 9.86806 | | 9.76381 | | |
| g cos B | 9.99462 | 381,47 | 9.99667 | | 9.99462 | 374,01 | 9.99667 | | |
| cos t cos B | 2.58146 | 306,99 | 2.48713 | | 2.57288 | 295,59 | 2.47068 | | |
| Diff | | −74,48 | | | | −78,42 | | | |

(247) Eurrate *h(8)

| | | | Δα ∫ | Δδ ∫ |
|---|---|---|---|---|
| 4h 1 | 14,75 | 4h 5 33,50 | −4m 18,75 | −77,39 |
| 1 | 15,00 | 5 33,50 | 18,50 | 77,40 |
| 8 | 59,25 | 13 18,50 | 19,25 | 75,15 |
| 8 | 59,50 | 13 18,00 | 18,50 | 70,64 |
| 16 | 45,75 | 21 5,50 | 19,75 | 74,48 |
| 16 | 45,75 | 21 5,50 | 19,75 | 78,42 |
| 37 | 39,00 | 42 0,50 | 21,50 | 33,48 |
| 37 | 39,00 | 42 0,50 | 21,50 | 6) |
| 47 | 6,50 | 51 28,00 | 21,50 | −75,58 |
| 47 | 6,50 | 51 28,00 | 21,50 | −1′ 15,58 |
| 57 | 23,50 | 58 46,00 | 22,50 | Δδ |
| 57 | 23,50 | 58 46,00 | 22,50 | |
| 332 | 18,00 | | 12) 245,50 | |
| 2) 4 | 27 41,5 | | −4m 20,458 | |
| | −0 49,6 | | Cor 0,007 | |
| 4 | 26 51,9 | | −4m 20,451 | Δα : 2il |
| 19 | 4 36,94 | | −1°5 6,76 | Δα : Bog |
| 9 | 21 54,96 | | | |
| | −1 32,05 | | | |
| 9. | 20 22,9 | m zl Dif | | |

Von nun an wurden die aus meinen Plejadenbeobachtungen 1892 abgeleiteten Werthe des Kreismicrometers benutzt

äuss. Radius 564.50
inn Radius 463 69

mittl. Radius a = 514,09

lg $\frac{15}{4a}$ 7.86299
lg a 2.71104

(247) Encke

δ VII 1892 September 15 $9^h 55^m 17^s.1$ m. Z.

1875,0 (8,5) $0^h 51^m 55^s,63 + 11° 27' 4''.3$ A.G. Leipzig 2 Best.

1892,0 $0^h 52^m 48^s,908 + 11° 32' 36''.35$ A.G. Leipzig
$+ 2^s,648 \quad + 18''.01$
$0^h 52^m 51^s,556 + 11\ 32\ 54.36$
$+ 2\ 32,625 \quad - 0\ 2,16$

(247) $0^h 55\ 24,181 + 11° 32' 52''.20$ 9 Zgl.

Conv. Pos. $- 0^s,231 \quad + 4''.80$

C.d. Ein d.N. $- 9^s.92 \quad - 2' 21''.5$
3110

(9m.7 Encke)

1883,5

| | |
|---|---|
| d | 13° 5'.57 |
| δ | + 11° 29',84 |
| cos d | 9.99856 |
| n | 1.30219 |
| sin d | 9.35512 |
| tg δ | 9.30836 |
| | 9.96567 |
| | 0.9240 |
| m | 46,0861 |
| | 47,0101 17 |
| | 32907 |
| | 47101 |
| | 7991717 |
| f cos d | 1.29075 |
| | 19',5323 17 |
| | 1367261 |
| | 195323 |
| | 332,0491 |

Sept. 15 * (247)

| | | | | | | Δα s | Δδ |
|---|---|---|---|---|---|---|---|
| G | 322 41 | $21^h 17\ 6,50$ | $21\ 19\ 40,00$ | $+ 2^m 33,50$ | | | |
| α | 13 12 | $21\ 17\ 6,75$ | $21\ 19\ 40,50$ | $+ 2\ 33,75$ | | | |
| H | 97 7 | $21\ 23,00$ | $23\ 56,50$ | $+ 2\ 33,50$ | | | |
| G+α | 335 53 | $21\ 23,25$ | $23\ 56,75$ | $+ 2\ 33,50$ | | | |
| cos | 9.9603 | $27\ 23,75$ | $29\ 56,50$ | $+ 2\ 32,75$ | | | |
| g | 1.0965 | $27\ 23,25$ | $29\ 56,75$ | $+ 2\ 33,50$ | | | |
| sin | 9.6113 n | $31\ 46,25$ | $34\ 19.00$ | $+ 2\ 32,75$ | | | |
| tg δ | 9.3102 | $31\ 46,50$ | $34\ 19,25$ | $+ 2\ 32,75$ | | | |
| | 0.0180 n | $36\ 7.75$ | $38\ 40,75$ | $+ 2\ 33,00$ | | | |
| | − 1.04 | $36\ 8.00$ | $38\ 40,75$ | $+ 2\ 32,75$ | − 11.90 | | |
| f | + 22,79 | $45\ 4,75$ | $47\ 36,75$ | $+ 2\ 32,00$ | − 10.57 | | |
| | + 21.75 | $45\ 4,75$ | $47\ 36,75$ | $+ 2\ 32,00$ | − 9.71 | | |
| | + 17.97 | $51\ 1,50$ | $53\ 33,50$ | $+ 2\ 32,00$ | − 7.73 | | |
| | + 39.72 | $51\ 1,25$ | $53\ 33,50$ | $+ 2\ 32,25$ | + 1.62 | | |
| H+α | 110 19 | $55\ 44,25$ | $58\ 15.75$ | $+ 2\ 31,50$ | + 6.86 | | |
| sin δ | 9.3013 | $55\ 43,50$ | $58\ 16,00$ | $+ 2\ 32,50$ | + 2,28 | | |
| cos | 9.5406 n | $22\ 0\ 1.50$ | $22\ 2\ 33,25$ | $+ 2\ 31.75$ | + 3,82 | | |
| h | 1.2737 | $22\ 0\ 1,75$ | $22\ 2\ 33,25$ | $+ 2\ 31,50$ | + 5,86 | | |
| sin | 9.9721 | | | | | | |
| sec δ | 0.0089 | | | | | | |
| | 1.2547 | | | | | | |
| fi | 0.9076 | | | | | | |
| cos | 9.9911 | | | | | | |
| f cos d | 0.8987 | + 7''.92 | | | | | |
| 1 gew | 1.0568 | + 11.90 | | | | | |
| h cos δ | 0.1156 n | + 19.32 | | | | | |
| | | − 1.31 | | | | | |

$21^h 40\ 56.97 + 2^m\ 32^s,625 \quad - 2''.11$
$- 4\ 28,21$
$21\ 36\ 28.76$ Sternzeit
$11\ 39\ 33,85$
$9\ 56\ 54.91$
$- 1\ 37.79$
$9^h 55^m 17,12$ m. Z.

| * | 1) oben | Encke | |
|---|---|---|---|
| 59 | | 58 | |
| 40,5 | | 38 | |
| 99,5 | 18,5 | 96 | 20 |
| 1.99782 | 1.26717 | 1.98227 | 1.30103 |
| 9.99112 | 9.99112 | 9.99112 | 9.99112 |
| 9.85193 | 9.12128 | 9.83638 | 9.15514 |
| 45 19.46 | | 43 19.29 | |
| 9.84701 | 358,27 | 9.86185 | |
| 9.99617 | 370,17 | 9.99552 | |
| 2.55422 | − 11.90 | 2.56841 | |

| 60 | 2) oben | 59 | |
|---|---|---|---|
| 40,5 | | 38,5 | |
| 100,5 | 19,5 | 97,5 | 20,5 |
| 2.00217 | 1.29003 | 1.98900 | 1.31175 |
| 9.85628 | 9.14414 | 9.84311 | 9.16586 |
| 45 54,67 | | 44 10,23 | |
| 9.84246 | 354,19 | 9.85568 | |
| 9.99574 | 364,76 | 9.99529 | |
| 2.54924 | − 10,57 | 2.56201 | |

| 59,5 | 3) unten | 61 | |
|---|---|---|---|
| 40,5 | | 41,5 | |
| 100 | 19 | 102,5 | 19,5 |
| 2.00000 | 1.27875 | 2.01072 | 1.29003 |
| 9.85411 | 9.13286 | 9.86483 | 9.14414 |
| 9.84476 | 356.25 | 9.83297 | |
| 9.99596 | 346,54 | 9.99574 | |
| 2.55176 | − 9,71 | 2.53975 | |

| 58,5 | 4) unten | 60 | |
|---|---|---|---|
| 40 | | 40,5 | |
| 98,5 | 18,5 | 100,5 | 19,5 |
| 1.99344 | 1.26717 | 2.00217 | 1.29003 |
| 9.84755 | 9.12128 | 9.85628 | 9.14414 |
| 44 44,77 | | 45 54,67 | |
| 9.85140 | 361,92 | 9.84246 | |
| 9.99617 | 354,19 | 9.99574 | |
| 2.55861 | − 7,73 | 2.54924 | |

| 58,5 | 5) unten | 58,5 | |
|---|---|---|---|
| 40 | | 39,5 | |
| 98,5 | 18,5 | 98,0 | 19 |
| | | 1.99123 | 1.27875 |
| | | 9.84534 | 9.13286 |
| wie 4) | | 9.85355 | |
| | 361.92 | 9.99596 | |
| | 363,54 | 2.56055 | |
| | + 1,62 | | |

| 58,5 | 6) unten | 57,5 | |
|---|---|---|---|
| 38,5 | | 37,5 | |
| 97 | 20 | 95 | 20 |
| 1.98677 | 1.30103 | 1.97772 | 1.30103 |
| 9.84088 | 9.15514 | 9.83183 | 9.15514 |
| 43 53,23 | | 42 45,64 | |
| 9.85776 | | 9.86581 | |
| 9.99552 | 366,71 | 9.99552 | |
| 2.56432 | 373,57 | 2.57237 | |
| | + 6,86 | | |

| 57 | 7) oben | 58 | |
|---|---|---|---|
| 37,5 | | 37 | |
| 94,5 | 19,5 | 95 | 21 |
| 1.97543 | 1.29003 | 1.97772 | 1.32222 |
| 9.82954 | 9.14414 | 9.83183 | 9.17633 |
| | | 42 45,64 | |
| 9.86776 | | 9.86581 | |
| 9.99574 | 375,44 | 9.99505 | |
| 2.57454 | 373,16 | 2.57190 | |
| | + 2,28 | | |

| 57,5 | 8) oben | 58,5 | |
|---|---|---|---|
| 38 | | 38 | |
| 95,5 | 19,5 | 96,5 | 20,5 |
| 1.98000 | 1.29003 | 1.98453 | 1.31175 |
| 9.83411 | 9.14414 | 9.83864 | 9.16586 |
| 43 2,43 | | 43 36,23 | |
| 9.86384 | 372,07 | 9.85981 | |
| 9.99574 | 368,25 | 9.99529 | |
| 2.57062 | + 3,82 | 2.56614 | |

| 58 | 9) oben | 59,5 | |
|---|---|---|---|
| 38,5 | | 38,5 | |
| 96,5 | 19,5 | 98 | 21 |
| 1.98453 | 1.29003 | 1.99123 | 1.32222 |
| 9.83864 | 9.14414 | 9.84534 | 9.17633 |
| | | 44 27,50 | |
| 9.85981 | 368,63 | 9.85355 | |
| 9.99574 | 362,77 | 9.99505 | |
| 2.56659 | + 5,86 | 2.55964 | |

892 September 17 $10^h\,44^m\,4^s,6$ m.Z. 1883.5

8750 (8,5) $0^h\,50^m\,49^s.09 + 11°\,45'\,11''.8$ A.G. Leipzig 2 Best.

8920 $0^h\,51^m\,42^s,374 + 11°\,50'\,44''.21$ A.G. Leipzig

$+ 2,678 \quad + 18,22$

$0^h\,51^m\,45.052 + 11°\,51'\,2''.43$

$+ 1\;15,580 \quad + 2 \quad 0.03$

(247) $0^h\,53^m\,0,632 + 11°\,53'\,2''.46$ 11. Vgl.

C. w. Par $- 0.175 \quad + 4,66$

C. d. S $- 10^s,14 \quad - 2'\,24,9$ (9m.7 Groom)

Der Stern bestand bei Weisse 846 und Glasg 242 der Correction $+1^m$

| | | | |
|---|---|---|---|
| $\alpha$ | $12°\,48.93$ | | |
| $\delta$ | $+11°\,47,97$ | | |
| $\cos\alpha$ | 9.98904 | | |
| n | 1.30219 | | |
| sind | 9.34598 | | |
| h/s | 9.31994 | | |
| | 9.96811 | | |
| | +0.9292 | | |
| m | 46,0861 | | |
| | 47,0153 | 17 | |
| | 329 1071 | | |
| | 47 0153 | | |
| | 799.2601 | | |
| f neord | 1.29123 | | |
| | +19,553647 | | |
| | 13687548 | | |
| | 1955364 | | |
| | 33241188 | | |

Sept 17 (247)

| | | | | $\Delta\alpha$, | $\Delta\delta$ |
|---|---|---|---|---|---|
| $\odot$ | 322° 51' | $22^h\,15^m\,34.00$ | $22^h\,16\;55,50$ | $+1^m\,16,50$ | +117.38 |
| $\alpha$ | 12 56 | 22 15 38,50 | 22 16 55,50 | +1 17,00 | 108.42 |
| H | 94 58 | 22 18 44,50 | 22 20 1,50 | +1 17,00 | 111.07 |
| $\odot+\alpha$ | 335 47 | 22 18 44,75 | 22 20 1,50 | +1 16,75 | 115.43 |
| cos | 9.96600 | 22 22 2,50 | 22 23 19.00 | +1 16,50 | 117.08 |
| g | 1.0993 | 22 22 2,75 | 22 23 19.00 | +1 16,25 | 120.78 |
| sin | 9.6130 n | 22 25 13,00 | 22 26 29.00 | +1 16,00 | 120.84 |
| h/s | 9.3217 | 22 25 13,00 | 22 26 29.25 | +1 16,25 | 127.77 |
| | 0.0340 n | 22 32 58,50 | 22 34 14,00 | +1 15,50 | 126.24 |
| | $-1^m.08$ | 22 32 58,00 | 22 34 14,00 | +1 16,00 | 125,92 |
| f | +23,00 | 22 38 32,75 | 22 39 48,00 | +1 15,25 | 129.42 |
| | +21.92 | 22 38 32,75 | 22 39 48,25 | +1 15,50 | |
| | +18.25 | 22 41 35,75 | 22 42 51,25 | +1 15,50 | $+120^{''},03$ |
| | +40.17 | 22 41 36,00 | 22 42 51,00 | +1 15,00 | |
| H+$\alpha$ | 107 54 | 22 44 35,00 | 22 45 50,00 | +1 15,00 | |
| sin$\delta$ | 9.3123 | 22 47 34,50 | 22 45 50,25 | +1 15,75 | |
| cos | 9.4876 n | 22 47 29.25 | 22 48 44,50 | +1 15,25 | |
| h | 1.2734 | 22 47 29.50 | 22 48 44,25 | +1 14,75 | |
| sin | 9.9785 | 23 3 57.50 | 23 5 11.50 | +1 14,00 | |
| sec$\delta$ | 0.0094 | 23 3 57.25 | 23 5 11.25 | +1 14,00 | |
| | 1.2613 | 22 50 38,50 | 22 51 53,25 | +1 14.75 | |
| | 0.9091 | 22 50 38,25 | 22 51 52,50 | +1 14,25 | |
| f cos$\delta$ | 9.9906 | | | | |
| f/cos$\delta$ | 0.8997 | | | | |
| gcos | 1.0593 | | | | |
| | 0.0733 n | | | | |
| | +7.94 | | | | |
| | +11.46 | | | | |
| | +19.40 | | | | |
| | − 1.18 | | | | |

$22^h\,37^m\,45^s\,18 + 1^m\;15^s,580$

$\Delta\alpha \quad -4\;28,78$

$22\;33\;17.40$ Sternzeit

$11\;47\;26.96$

$10\;45\;50,44$

$-1\;45,81$

$10^h\,44^m\,4^s,63$ m.Z.

| | | | | |
|---|---|---|---|---|
| 1) oben | | | | |
| | 50 | | 65 | |
| | 27 | | 47 | |
| | 77 | 23 | 112 | 18 |
| | 1.88649 | 1.36173 | 2.04922 | 1.25527 |
| | 9.99064 | 9.99064 | 9.99059 | 9.99059 |
| | 9.74012 | 9.21536 | 9.90280 | 9.10885 |
| | 9.92188 | 423,63 | 9.77866 | |
| | 9.99407 | 306,25 | 9.99638 | |
| | 2.62699 | +117.38 | 2.48608 | |
| 2) oben | | | | |
| | 51 | | 64 | |
| | 27,5 | | 47 | |
| | 78,5 | 23,5 | 111 | 17 |
| | 1.89487 | 1.37107 | 2.04532 | 1.23045 |
| | 9.74850 | 9.22470 | 9.89890 | 9.08403 |
| | 9.91815 | 419.75 | 9.78540 | |
| | 9.99380 | 311.33 | 9.99678 | |
| | 2.62299 | +108,42 | 2.49322 | |
| 3) oben | | | | |
| | 52 | | 65 | |
| | 29,5 | | 48 | |
| | 81,5 | 22,5 | 113 | 17 |
| | 1.91116 | 1.35218 | 2.05308 | 1.23045 |
| | 9.76479 | 9.20581 | 9.90666 | 9.08403 |
| | 35 34,72 | | | |
| | 9.91026 | 412,70 | 9.77166 | |
| | 9.99433 | 301,63 | 9.99678 | |
| | 2.61563 | +111,07 | 2.47948 | |
| 4) oben | | | | |
| | 51 | | 65 | |
| | 30 | | 48,5 | |
| | 81 | 21 | 113,5 | 16,5 |
| | 1.90849 | 1.32222 | 2.05500 | 1.21748 |
| | 9.76212 | 9.17585 | 9.90858 | 9.07106 |
| | 35 19,67 | | 54 6,78 | |
| | 9.91161 | 414,68 | 9.76804 | |
| | 9.99506 | 299.25 | 9.99696 | |
| | 2.61771 | +115,43 | 2.47604 | |
| 5) oben | | | | |
| | 53 | | 66 | |
| | 30 | | 49 | |
| | 83 | 23 | 115 | 17 |
| | 1.91908 | 1.36173 | 2.06070 | 1.23045 |
| | 9.77271 | 9.21536 | 9.91428 | 9.08403 |
| | 36 20,18 | | 55 10,37 | |
| | 9.90609 | 408,51 | 9.75671 | |
| | 9.99407 | 291.43 | 9.99678 | |
| | 2.61120 | +117,08 | 2.46453 | |
| 6) unten | | | | |
| | 64,5 | | 51 | |
| | 49,5 | | 28,5 | |
| | 114,0 | 15 | 79,5 | 22,5 |
| | 2.05690 | 1.17609 | 1.90037 | 1.35218 |
| | 9.91053 | 9.02972 | 9.75395 | 9.20576 |
| | 54 28,22 | | 34 34,47 | |
| | 9.76427 | 297,03 | 9.91561 | |
| | 9.99749 | 417.81 | 9.99433 | |
| | 2.47280 | +120.78 | 2.62098 | |
| 7) unten | | | | |
| | 64,5 | | 50,5 | |
| | 49 | | 28 | |
| | 113,5 | 15,5 | 78,5 | 22,5 |
| | 2.05500 | 1.19033 | 1.89487 | 1.35218 |
| | 9.90863 | 9.04396 | 9.74845 | 9.20576 |
| | 4 | | 34 4,74 | |
| | 9.76794 | 299.44 | 9.91817 | |
| | 9.99733 | 420.28 | 9.99433 | |
| | 2.47631 | +120,84 | 2.62354 | |
| 8) unten | | | | |
| | 65 | | 50 | |
| | 49 | | 26,5 | |
| | 114 | 16 | 76,5 | 23,5 |
| | 2.05690 | 1.20412 | 1.88366 | 1.37107 |
| | 9.91053 | 9.05778 | 9.73724 | 9.22465 |
| | 54 28,22 | | 33 5,84 | |
| | 9.76427 | 296,80 | 9.92311 | |
| | 9.99715 | 424,57 | 9.99380 | |
| | 2.47246 | +127,77 | 2.62795 | |
| 9) unten | | | | |
| | 63,5 | | 49 | |
| | 49 | | 24,5 | |
| | 112,5 | 14,5 | 73,5 | 24,5 |
| | 2.05115 | 1.16137 | 1.86629 | 1.38917 |
| | 9.90478 | 9.01500 | 9.71987 | 9.24275 |
| | 53° 25,78 | | 31 38,67 | |
| | 9.77511 | 304,66 | 9.93009 | |
| | 9.99766 | 430,90 | 9.99325 | |
| | 2.48381 | +126,24 | 2.63438 | |
| 10) unten | | | | |
| | 64 | | 49,5 | |
| | 48,5 | | 24 | |
| | 112,5 | 15,5 | 73,5 | 25,5 |
| | 2.05115 | 1.19033 | 1.86629 | 1.40654 |
| | 9.90478 | 9.04396 | 9.71987 | 9.26012 |
| | 53 25,78 | | 31 38,67 | |
| | 9.77511 | 304,43 | 9.93009 | |
| | 9.99733 | 430,35 | 9.99269 | |
| | 2.48348 | +125,92 | 2.63382 | |
| 11) unten | | | | |
| | 53 | | 67 | |
| | 30,5 | | 50,5 | |
| | 83,5 | 22,5 | 117,5 | 16,5 |
| | 1.92169 | 1.35218 | 2.07004 | 1.21748 |
| | 9.77532 | 9.20581 | 9.92362 | 9.07106 |
| | 36 35,47 | | 57 0,37 | |
| | 9.90467 | 407,92 | 9.73604 | |
| | 9.99433 | 278,00 | 9.99696 | |
| | 2.61004 | +129,42 | 2.44404 | |

# (247) Eutrate.

1892 September 19 $11^h\ 5^m\ 40^s,0$ m. Z

| | | | | |
|---|---|---|---|---|
| + 1875,0 (7.1) | $0^h\ 45^m\ 2^s,35$ | $+12°\ 6'\ 16''35$ | A.G. Leipzig 2 Bd. | |
| 1892,0 | $0^h\ 45^m\ 55^s,546$ | $+12°\ 11'\ 50''57$ | A.G. Leipzig | |
| | + 2,708 | + 18.37 | | |
| | $0^h\ 45^m\ 58^s,254$ | $+12°\ 12'\ 8.94$ | | |
| | + 4 33,420 | + 0 30,90 | | |
| (247) | $0^h\ 50^m\ 31^s,674$ | +12 12 39,84 | | II. Vgl. |
| C. w. Jan | − 0,140 | + 4,61 | | |
| C.d.E. | − 10,36 | − 2' 26,0 | | (9,7 Grösse) |

1883.5

| | |
|---|---|
| α | 11° 22.25 |
| δ | +12° 9,06 |
| cos α | 9.99139 |
| n | 1.30219 |
| sin α | 9.29482 |
| tg δ | 9.33307 |
| | 9.93008 |
| | +0.8513 |
| m | 46,0861 |
| | 46,9374 17 |
| | 3285618 |
| | 469374 |
| | 7979358 |
| f n cos α | 1.29358 |
| | + 19,"6600 17 |
| | 13762 |
| | 1966 |
| | +33422 |

| Sept 19 | | * | (247) | | Δα | Δδ |
|---|---|---|---|---|---|---|
| g | 323° 2' | $22^h\ 21\ 22^s,50$ | 22 25 58,25 | | + 4m 35,75 | |
| α | 11 29 | 22 21 22,75 | 22 25 58,50 | | + 4 35,75 | |
| H | 92 50 | 27 33.00 | 22 32 8,50 | | 4 35,50 | |
| g+α | 334 31 | 27 33.00 | 22 32 8,25 | | 4 35,25 | |
| cos | 9.9555 | 34 39.75 | 22 39 15.00 | | 4 35,25 | |
| g | 1.1019 | 34 39,00 | 22 39 14,75 | | 4 35,75 | |
| sin | 9.6337 n | 45 12,00 | 22 49 45,75 | | 4 33,75 | |
| 45 | 9.3348 | 45 12,00 | 22 49 46,00 | | 4 34,00 | |
| | 0.0704 n | 52 18,25 | 22 56 52,25 | | 4 34,00 | |
| | − 1.18 | 52 18,50 | 22 56 52,25 | | 4 33,75 | |
| f | + 23,20 | 59 28,00 | 23 4 2,00 | | 4 34,00 | |
| | + 22.02 | 59 28,25 | 23 4 1,25 | | 4 33,00 | + 12," |
| | + 18,60 | 7 17,25 | 23 11 50,50 | | 4 33,25 | 19. |
| | + 40.62 | 7 17.75 | 23 11 50,50 | | 4 32,75 | 22, |
| H+α | 104 19 | 24 16,25 | 23 28 48,25 | | 4 32,00 | 29. |
| sin δ | 9.3249 | 24 15,75 | 23 28 48,50 | | 4 32,75 | 24. |
| cos | 9.3932 n | 31 7.50 | 23 35 40.00 | | 4 32,50 | 24. |
| h | 1.2732 | 31 8.25 | 23 35 39.75 | | 4 31,50 | 28.8 |
| sin | 9.9863 | 39 17.25 | 23 43 49.00 | | 4 31,75 | 40.3 |
| sec δ | 0.0099 | 39 18,00 | 23 43 49.00 | | 4 31,00 | 37.2 |
| | 1.2694 | 23 47 22,50 | 23 51 53,00 | | 4 30,50 | 48.1 |
| f | 0.9100 | 23 47 21.50 | 23 51 53,00 | | + 4 31,50 | 52,3 |
| cos δ | 9.9901 | | | | | |
| sin δ | 9.9001 | + 7."94 | − 4 27.09 | | | |
| | 1.0574 | + 11,41 | $23^h\ 2^m\ 49^s,47$ | | Sternzeit | |
| | 9.9913 n | + 19,35 | 11 55 20,07 | | | |
| | | − 0,98 | $11^h\ 7^m\ 29^s,40$ | | | |
| | | + 18,37 | − 1 49.35 | | | |
| | | | $11^h\ 5^m\ 40^s,05$ | m. Z. | | |

| * | 1) oben | (247) | | | | |
|---|---|---|---|---|---|---|
| 53 | | 55,5 | | | | |
| 33,5 | | 35 | | | | |
| 86,5 | 19,5 | 90,5 | 20,5 | | | |
| 1.93702 | 1.29003 | 1.95665 | 1.31175 | | | |
| 9.99008 | 9.99008 | 9.99006 | 9.99006 | | | |
| 9.79009 | 9.14310 | 9.80970 | 9.16480 | | | |
| 9.89608 | 400.75 | 9.88309 | | | | |
| 9.99576 | 386,55 | 9.99532 | | | | |
| 2.60288 | + 12,20 | 2.58945 | | | | |
| 54 | 2) oben | 57 | | | | |
| 33 | | 36,5 | | | | |
| 87 | 21 | 93,5 | 20,5 | | | |
| 1.93952 | 1.32222 | 1.97081 | 1.31175 | | | |
| 9.79259 | 9.17529 | 9.82386 | 9.16480 | | | |
| 38 20,19 | " | 41 48,29 | | | | |
| 9.89453 | 398,70 | 9.87240 | | | | |
| 9.99508 | 379.11 | 9.99532 | | | | |
| 2.60065 | + 19,59 | 2.57876 | | | | |
| 54,5 | 3) oben | 58 | | | | |
| 34 | | 37,5 | | | | |
| 88,5 | 20,5 | 95,5 | 20,5 | | | |
| 1.94694 | 1.31175 | 1.98000 | 1.31175 | | | |
| 9.80001 | 9.16482 | 9.83305 | 9.16480 | | | |
| 39 7.31 | | 42 54,62 | | | | |
| 9.88975 | 394,55 | 9.86476 | | | | |
| 9.99532 | 372,49 | 9.99532 | | | | |
| 2.59611 | + 22,06 | 2.57112 | | | | |
| 58 | 4) unten | 54,5 | | | | |
| 40 | | 34 | | | | |
| 98 | 18 | 88,5 | 20,5 | | | |
| 1.99123 | 1.25527 | 1.94694 | 1.31175 | | | |
| 9.84430 | 9.10834 | 9.79999 | 9.16480 | | | |
| 44 19,46 | | 39 7.19 | | | | |
| 9.85454 n | 364,73 | 9.88976 | | | | |
| 9.99639 | 394,56 | 9.99532 | | | | |
| 2.56197 n | + 29,83 | 2.59612 | | | | |
| 56,5 | 5) unten | 54,5 | | | | |
| 39 | | 32,5 | | | | |
| 95,5 | 17,5 | 87 | 22 | | | |
| 1.98000 | 1.24304 | 1.93952 | 1.34242 | | | |
| 9.83307 | 9.09611 | 9.79257 | 9.19547 | | | |
| 42 54,78 | | 38 20,06 | | | | |
| 9.86474 | 373,57 | 9.89454 | | | | |
| 9.99659 | 398,26 | 9.99459 | | | | |
| 2.57237 | + 24,69 | 2.60017 | | | | |
| 56 | 6) unten | 54 | | | | |
| 37,5 | | 30,5 | | | | |
| 93,5 | 18,5 | 84,5 | 23,5 | | | |
| 1.97081 | 1.26717 | 1.92686 | 1.37107 | | | |
| 9.82388 | 9.12024 | 9.77991 | 9.22412 | | | |
| 41 48,43 | | 37 2,65 | | | | |
| 9.87238 | 379,84 | 9.90209 n | | | | |
| 9.99618 | 404,53 | 9.99381 n | | | | |
| 2.57960 | + 24,69 | 2.60695 | | | | |
| 54,5 | 7) unten | 52 | | | | |
| 37,5 | | 29 | | | | |
| 92 | 17 | 81 | 23 | | | |
| 1.96379 | 1.23045 | 1.90849 | 1.36173 | | | |
| 9.81686 | 9.08352 | 9.76154 | 9.21478 | | | |
| 40 59.43 | | 35 16,44 | | | | |
| 9.87784 | 385,18 | 9.91190 | | | | |
| 9.99679 | 414,03 | 9.99409 | | | | |
| 2.58567 | + 28,85 | 2.61703 | | | | |
| 53,5 | 8) oben | 59,5 | | | | |
| 33,5 | | 40 | | | | |
| 87 | 20 | 99,5 | 19,5 | | | |
| 1.93952 | 1.30103 | 1.99782 | 1.29003 | | | |
| 9.79259 | 9.15410 | 9.85087 | 9.14308 | | | |
| 38 20,19 | | | | | | |
| 9.89453 | 399,13 | 9.84809 | | | | |
| 9.99554 | 358,83 | 9.99576 | | | | |
| 2.60111 | + 40,30 | 2.55489 | | | | |
| 55 | 9) oben | 60 | | | | |
| 35,5 | | 41,5 | | | | |
| 90,5 | 19,5 | 101,5 | 18,5 | | | |
| 1.95665 | 1.29003 | 2.00647 | 1.26717 | | | |
| 9.80972 | 9.14310 | 9.85952 | 9.12022 | | | |
| | | 46 21,33 | | | | |
| 9.88308 | 388,94 | 9.83896 | | | | |
| 9.99576 | 351,71 | 9.99618 n | | | | |
| 2.58988 | + 37,23 | 2.54618 n | | | | |
| 55,5 | 10) oben | 62 | | | | |
| 36 | | 43 | | | | |
| 91,5 | 19,5 | 105 | 19 | | | |
| 1.96142 | 1.29003 | 2.02119 | 1.27875 | | | |
| 9.81449 | 9.14310 | 9.87424 | 9.13180 | | | |
| 40 43,20 | | | | | | |
| 9.87962 | 385,85 | 9.82154 | | | | |
| 9.99576 | 337.72 | 9.99598 | | | | |
| 2.58642 | + 48,13 | 2.52856 | | | | |
| 61 | 11) unten | 56 | | | | |
| 45 | | 35 | | | | |
| 106 | 16 | 91 | 21 | | | |
| 2.02531 | 1.20412 | 1.95904 | 1.32222 | | | |
| 9.87838 | 9.05719 | 9.81209 | 9.17527 | | | |
| 49 5,45 | | 40 26,93 | | | | |
| 9.81615 | 334,46 | 9.88138 | | | | |
| 9.99716 | 386,81 | 9.99508 | | | | |
| 2.52435 | + 52,35 | 2.58750 | | | | |

(247) Eukrate.

92 October 12 $10^h\ 24^m\ 50^s,0$ m. Z.

| | | | | |
|---|---|---|---|---|
| 750 (9) | $0^h\ 21^m\ 9^s.69$ | $+15°\ 15'\ 50''.8$ | A.G. Berlin 105 | 3 Beob |
| 750 | 0 21 9.69 | +15 15 50,45 | Leipzig | 2 Beob |
| 5,0 | $0^h\ 21^m\ 9^s.69$ | $+15°\ 15'\ 50''.62$ | | |
| 2,0 | $0^h\ 22^m\ 2^s.507$ | $+15°\ 21'\ 30''.02$ | $\frac{1}{2}$(Berlin AG 105 + Leipzig) | |
| | + 2,840 | + 20,55 | | |
| | $0^h\ 22^m\ 5^s.347$ | +15 21 50,57 | | |
| | − 3 55,479 | − 2 30,48 | | |
| (247) | $0^h\ 18^m\ 9^s.868$ | $+15°\ 19'\ 20''.09$ | 6 Vgl. | |
| C.w. Par | − 0,036 | + 4,36 | | |
| C.d.E. | − 10,45 | − 2' 37.9 | | |

1883,5

| | |
|---|---|
| α | 5° 24.02 |
| δ | +15° 18,67 |
| cos α | 9.99807 |
| n | 1.30219 |
| sin α | 8.97366 |
| tg δ | 9.43740 |
| | 9.71325 |
| | +0.5167 |
| m | 46,0861 |
| | 46,6028 [7] |
| | 326196 |
| | 466028 |
| | 792476 |
| f cos α | 1.30026 |
| | +19,96455 [17] |
| | 139 75185 |
| | 199 6455 |
| | 339,39735 |

October 12 (247)

| | | | | | Δα | Δδ |
|---|---|---|---|---|---|---|
| | | | α | | | |
| φ | 325 38 | 23 35 40,00 | 39 | 34,25 | − 3m 54,25 | |
| α | 5 31 | 23 35 39.75 | 39 | 34,25 | − 3 54,50 | |
| H | 68 20 | 23 42 36,75 | 46 | 31.75 | − 3 55,00 | |
| φ + α | 331 9 | 23 42 36,50 | 46 | 31,75 | − 3 55,25 | |
| cos | 9.9424 | 23 49 29.00 | 53 | 24,25 | − 3 55,25 | |
| f | 1.1287 | 23 49 29.00 | 53 | 24,25 | − 3 55,25 | |
| sin | 9.6835 n | 23 57 58,50 | 1 | 54,25 | − 3 55,75 | − 153''.65 |
| tg δ | 9.4388 | 23 57 58,25 | 1 | 53,75 | − 3 55,50 | 155,36 |
| | 0.2510 n | 0 3 53,50 | 7 | 49.50 | − 3 56,00 | 154,59 |
| | − 1.78 | 0 3 53,50 | 7 | 49.50 | − 3 56,00 | 146,40 |
| f | + 25,49 | 0 10 24,25 | 14 | 20,75 | − 3 56,50 | 153,76 |
| | + 23,71 | 0 10 24,50 | 14 | 21,00 | − 3 56,50 | 139. 11 |
| | + 18,89 | $23^h\ 53^m\ 20^s.29$ | | | − 3m 55,479 | − 150''.48 |
| | +42.60 | − 0 46,83 | | | | |
| H + α | 73 51 | $23^h\ 52^m\ 33^s.46$ | Stanzeit | | | |
| sin δ | 9.4230 | 13 26 0,80 | | | | |
| cos | 9.4443 | 10 26 32,66 | | | | |
| h | 1.2779 | − 1 42,65 | | | | |
| sin | 9.9825 | 10 24 50.01 | m. Z. B. | | | |
| sec δ | 0.0158 | | | | | |
| | 1.2762 | fg cos | 1.0711 | | + 11''.78 | |
| fi | 0.8834 | f h cos | 0.1452 | | + 1,40 | |
| cos δ | 9.9842 | | | | + 7.37 | |
| f cos δ | 0.8676 | | | | +20,55 | |

Eukrate war mindestens so hell wie die 3 anon.

| | | | | |
|---|---|---|---|---|
| D. + 15° 52 | 9m.5 | $0^h\ 15^m\ 3^s.4$ | + 15° 6'.7 | } 1855,0 zwischen denen er steht |
| + 15° 53 | 9.5 | 15 18.5 | 13,7 | |
| + 15° 57 | 9.5 | 17 9.4 | 13,4 | |

Also Eucrate 9m,5

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 7 | 54 | 1) oben | x | 69,5 | | 54,5 | 2) oben | 70,5 |
| | 29,5 | | | 53,5 | | 31 | | 53,5 |
| | 83,5 | 24,5 | | 123 | 16 | 85,5 | 23,5 | 124 |
| | 1.92169 | 1.38917 | | 2.08991 | 1.20412 | 1.93197 | 1.37107 | 2.09342 |
| | 9.98428 | 9.98428 | | 9.98420 | 9.98420 | 9.98428 | 9.98428 | 9.98420 |
| | 9.76896 | 9.23644 | | 9.93710 | 9.05131 | 9.77924 | 9.21834 | 9.94061 |
| 35 | 58,53 | | | 59 54,12 | | 36 58,65 | | 60 42,86 |
| | 9.90809 | 409''.81 | | 9.70025 | | 9.90247 n | 405,03 | 9.68945 |
| | 9.99345 | 256,16 | | 9.99723 | | 9.99398 | 249,67 | 9.99687 |
| | 2.61258 | − 153,65 | | 2.40852 | | 2.60749 n | − 155,36 | 2.39736 |
| | 69 | 4) unten | | 53,5 | | 69 | 5) unten | 53 |
| | 52,5 | | | 29,5 | | 53 | | 28 |
| | 121,5 | 16,5 | | 83 | 24 | 122 | 16 | 81 |
| | 2.08458 | 1.21748 | | 1.91908 | 1.38021 | 2.08636 | 1.20412 | 1.90849 |
| | 9.98428 | 9.98428 | | 9.98420 | 9.98420 | 9.98428 | 9.98428 | 9.98420 |
| | 9.93185 | 9.06475 | | 9.76627 | 9.22740 | 9.93363 | 9.05139 | 9.75568 |
| | 58 44,12 | | | 35 43,12 | | 59 7,43 | | 34 43,94 |
| | 9.71516 n | 265,00 | | 9.90950 | | 9.71027 | 262,14 | 9.91478 |
| | 9.99705 | 411,40 | | 9.99372 | | 9.99723 | 415,90 | 9.99317 |
| | 2.42325 | − 146,40 | | 2.61426 | | 2.41854 | − 153,76 | 2.61899 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | 56 | 3) oben | | 70,5 | | |
| | 32 | | | 54,5 | | |
| | 88 | 24 | | 125 | 16 | |
| | 1.94448 | 1.38021 | | 2.09691 | 1.20412 | |
| | 9.98428 | 9.98428 | | 9.98420 | 9.98420 | |
| | 9.79175 | 9.22748 | | 9.94410 | 9.05131 | |
| | 38 14,94 | | | | | |
| | 9.89505 | 397.94 | | 9.67796 | | |
| | 9.99372 | 243,35 | | 9.99723 | | |
| | 2.59981 | − 154,59 | | 2.38823 | | |
| | 67,5 | 6) unten | | 52,5 | | |
| | 51 | | | 26 | | |
| | 118,5 | 16,5 | | 78,5 | 26,5 | |
| | 2.07372 | 1.21748 | | 1.89487 | 1.42325 | |
| | 9.98428 | 9.98428 | | 9.98420 | 9.98420 | |
| | 9.92099 | 9.06475 | | 9.74206 | 9.27044 | |
| | 56 28,62 | | | 33 30,89 | | |
| | 9.74215 | 281.99 | | 9.92103 | | |
| | 9.99705 | 421.80 | | 9.99232 | | |
| | 2.45024 | − 139.11 | | 2.62439 | | |

# (247) Encke.

1892 October 15 $10^h\ 3^m\ 6^s,7$ m. Z.

1875,0 $0^h\ 13^m\ 28^s,80 + 15°\ 33'\ 25'',1$ Berlin A.G. 71 2 Beob.

1892,0 $0^h\ 14^m\ 21^s,416 + 15°\ 39'\ 5'',38$ Berlin Mg. 71

$+ 2,821 \quad + 20,76$

$0^h\ 14^m\ 24^s,237 + 15°\ 39'\ 26'',14$

$- 0\ 22,125 \quad - 1\ 25,68$

(247) $0^h\ 14^m\ 2^s,112 + 15°\ 38'\ 0'',46$ 10 Vgl.

C. w. Par $- 0^s.044 \quad + 4'',32$

C.O.E $- 10^s,15 \quad - 2'\ 39'',6$

Grosse $9^m.5$ geschätzt

1883,5

| | | |
|---|---|---|
| $\alpha$ | $3°\ 28',77$ | |
| $\delta$ | $+ 15°\ 36',25$ | |
| cos $\delta$ | 9.99920 | |
| $n$ | 1.30219 | |
| sin $\delta$ | 8.78313 | |
| tg $\delta$ | 9.44604 | |
| | 9.53136 | |
| | +0.3399 | |
| $m$ | 46,0861 | |
| | 46,4260 | 17 |
| | 324982 | |
| | 46426 | |
| | 7892,42 | |
| $\sqrt{\cos\alpha}$ | 1.30139 | |
| | + 20,0167 | 17 |
| | 1401169 | |
| | 200167 | |
| | 3402839 | |

October 15 (247)

| | | | * | $\Delta\alpha$ | $\Delta\delta$ |
|---|---|---|---|---|---|
| $\eta$ | 326 3 | $23^h\ 28^s\ 4',75$ | $28^m\ 26',50$ | $- 0^m\ 21',75$ | |
| $\alpha$ | 3 35 | 23 28 5,00 | 28 26,00 | 21,00 | |
| $H$ | 65 11, | 23 31 41,00 | 32 2,00 | 21,00 | |
| $\eta+\alpha$ | 329° 38 | 23 31 41,00 | 32 2,50 | 21,50 | |
| cos | 9.93 59 | 23 34 41.75 | 35 3,25 | 21,50 | |
| $q$ | 1.1320 | 23 34 41,75 | 35 3,25 | 21,50 | |
| sin | 9.7037 $n$ | 23 37 52,50 | 38 14,25 | 21,75 | |
| tg $\delta$ | 9.4474 | 23 37 52,50 | 38 14,50 | 22,00 | |
| | 0.2831 $n$ | 23 40 36,25 | 40 58,00 | 21,75 | |
| | - 1.92 | 23 40 35,75 | 40 58,25 | 22,50 | |
| $f$ | + 25,82 | 23 46 7.00 | 46 29.25 | 22,25 | - 88,7 |
| | + 23,90 | 23 46 7.00 | 46 29.00 | 22,00 | 86,3 |
| | + 18,42 | 23 48 58,25 | 49 20,50 | 22,25 | 89.2 |
| | + 42.32 | 23 48 58,00 | 49 20,50 | 22,50 | 81.4 |
| $H+\alpha$ | 68 46 | 23 51 46,50 | 52 9.00 | 22,50 | 86.2 |
| sin $\delta$ | 9.4310 | 23 51 46,50 | 52 9.25 | 22,75 | 87.9 |
| cos | 9.5589 | 23 54 47,25 | 55 10.25 | 23,00 | 90.9 |
| $h$ | 1.2793 | 23 54 47.50 | 55 10,50 | 23,00 | 81.8 |
| sin | 9.9695 | 23 59 11.50 | 59 34,50 | 23,00 | 82.3 |
| sec $\delta$ | 0.0164 | 23 59 11.25 | 59 34,25 | - 0 23,00 | 81.5 |
| | 1.2652 | $23^h\ 43^m\ 22^s,65$ | | $-0^m\ 22^s,125$ | $- 85'',$ |
| $f_1$ | 0.8746 | - 0 46,42 | | | |
| cos $\delta$ | 9.9836 | $23^h\ 42^m\ 36^s,23$ Stundzeit | | | |
| $f_1$ cos $\delta$ | 0.8582 | 13 37 50.47 | | | |
| $q$ cos | 1.0679 | $10^h\ 4^m\ 45,76$ | | | |
| | 0.2692 | - 1 39,08 | | | |
| | | $10^h\ 3^m\ 6^s,68$ m. Z. | | | |

| | | | |
|---|---|---|---|
| + 7".21 | | | |
| + 11.69 | | | |
| + 1.86 | | | |
| + 20.76 | | | |

(247) punkten *

| | | | |
|---|---|---|---|
| 64,5 | | 53 | |
| 46 | | 31 | |
| 110,5 | 18,5 | 84 | 22 |
| 2.04336 | 1.26717 | 1.92428 | 1.34242 |
| 9.98363 | 9.98363 | 9.98358 | 9.98358 |
| 9.88998 | 9.11379 | 9.77085 | 9.18899 |
| 50 54,90 | | 36° 9'41 | |
| 9.79967 | 321,37 | 9.90709 | |
| 9.99630 | 410,09 | 9.99475 | |
| 2.50701 | - 88.72 | 2.61288 | |

| | | | |
|---|---|---|---|
| 64 | 2) unten | 53 | |
| 46 | | 31 | |
| 110 | 18 | 84 | 22 |
| 2.04139 | 1.25527 | | |
| 9.88801 | 9.10189 | | |
| 9.80262 | | | |
| 9.99650 | 323,71 | wie 1) | |
| 2.51016 | 410,09 | | |
| | - 86,38 | | |

| | | | |
|---|---|---|---|
| 64,5 | 3) unten | 52,5 | |
| 45,5 | | 30,5 | |
| 110 | 19 | 83 | 22 |
| 2.04139 | 1.27875 | 1.91908 | 1.34242 |
| 9.88801 | 9.12537 | 9.76565 | 9.18899 |
| | | 35 39.61 | |
| 9.80262 | 323,42 | 9.90982 | |
| 9.99610 | 412,68 | 9.99475 | |
| 2.50976 | - 89,26 | 2.61561 | |

| | | | |
|---|---|---|---|
| 63 | 4) unten | 52,5 | |
| 45 | | 30 | |
| 108 | 18 | 82,5 | 22,5 |
| 2.03342 | 1.25527 | 1.91645 | 1.35218 |
| 9.88004 | 9.10189 | 9.76302 | 9.19875 |
| 49° 20,73 | | 35 24,72 | |
| 9.81391 | 332,24 | 9.91117 | |
| 9.99650 | 413,73 | 9.99451 | |
| 2.52145 | - 81,49 | 2.61672 | |

| | | | |
|---|---|---|---|
| 63,5 | 5) unten | 52 | |
| 44,5 | | 28,5 | |
| 108 | 19 | 80,5 | 23,5 |
| 2.03342 | 1.27875 | 1.90580 | 1.37107 |
| 9.88004 | 9.12537 | 9.75237 | 9.21764 |
| 49 20,73 | | 34 25,89 | |
| 9.81391 | 331,93 | 9.91635 | |
| 9.99610 | 418,21 | 9.99400 | |
| 2.52105 | - 86,28 | 2.62139 | |

| | | | |
|---|---|---|---|
| 56 | 6) oben | 65,5 | |
| 33 | | 48 | |
| 89 | 23 | 113,5 | 17,5 |
| 1.94939 | 1.36173 | 2.05500 | 1.24304 |
| 9.79601 | 9.20835 | 9.90157 | 9.08961 |
| 38 41,75 | | | |
| 9.89236 | 395.95 | 9.78083 | |
| 9.99425 | 308,01 | 9.99669 | |
| 2.59765 | - 87,94 | 2.48856 | |

| | | | |
|---|---|---|---|
| 56,5 | 7) oben | 66 | |
| 34 | | 49 | |
| 90,5 | 22,5 | 115 | 17 |
| 1.95665 | 1.35218 | 2.06070 | 1.23045 |
| 9.80327 | 9.19880 | 9.90727 | 9.07702 |
| 39 28,44 | | 53 52,56 | |
| 9.88757 | 391.85 | 9.77051 | |
| 9.99451 | 300,91 | 9.99688 | |
| 2.59312 | - 90.94 | 2.47843 | |

| | | | |
|---|---|---|---|
| 57 | 8) oben | 65 | |
| 34 | | 48,5 | |
| 91 | 23 | 113,5 | 16,5 |
| 1.95904 | 1.36173 | 2.05500 | 1.21748 |
| 9.80566 | 9.20835 | 9.90157 | 9.06405 |
| 9.88593 | 390,14 | 9.78088 | |
| 9.99425 | 308,27 | 9.99706 | |
| 2.59122 | - 81,87 | 2.48893 | |

| | | | |
|---|---|---|---|
| 57,5 | 9) oben | 65,5 | |
| 35 | | 49 | |
| 92,5 | 22,5 | 114,5 | 16,5 |
| 1.96614 | 1.35218 | 2.05881 | 1.21748 |
| 9.81276 | 9.19880 | 9.90538 | 9.06405 |
| 40 31,47 | | | |
| 9.88089 | 386,87 | 9.77403 | |
| 9.99451 | 303,48 | 9.99706 | |
| 2.58644 | - 82,39 | 2.48213 | |

| | | | |
|---|---|---|---|
| 58 | 10) oben | 66 | |
| 36,5 | | 49,5 | |
| 94,5 | 21,5 | 115,5 | 16,5 |
| 1.97543 | 1.33244 | 2.06258 | 1.21748 |
| 9.82205 | 9.17906 | 9.90915 | 9.06405 |
| 41° 35,50 | | | |
| 9.87384 | 380,07 | 9.76695 | |
| 9.99499 | 298,57 | 9.99706 | |
| 2.57987 | - 81,50 | 2.47505 | |

# (247) Eukrate.

892 October 17 $7^h 57^m 29^s.1$ m. Z.

| | | | |
|---|---|---|---|
| 7,50 | $0^h 5^m 13^s,60$ | $+15° 45' 35'',7$ | Berlin A.G. 25 2 Best. |
| 92,0 | $0^h 6^m 5^s,990$ | $+15° 51' 16'',51$ | Berlin A.G. 25 |
| | $+ 2^s,792$ | $+ 20'',86$ | |
| | $0^h 6^m 8^s.782$ | $+15° 51' 37'',37$ | |
| | $+ 5^s 19^s,688$ | $- 2 16,80$ | |
| (247) | $0^h 11^m 28^s.470$ | $+15° 49' 20'',57$ | 8 Vgl. |
| . 10. Par. | $- 0^s,193$ | $+ 4'',52$ | |
| Corr. d. E | $- 10^s,17$ | $- 2' 40'',1$ | |

Eucrate erschien etwa $0^m,1$ schwächer
wie die benachbarten Sterne der B.D.

| | | | |
|---|---|---|---|
| $9^m.0$ | $0^h 9^m 27^s.4$ | $+15° 30',7$ | anon |
| $9^m.3$ | $0\ 9\ 47.1$ | $+15° 39',3$ | anon |

also Grocne bei heiterer Luft $9^m,3$

1883.5

| | |
|---|---|
| $\alpha$ | $1^h 24^m.95$ |
| $\delta$ | $+15° 48',43$ |
| cos d | 9.99987 |
| n | 1.30219 |
| sind | 8.39284 |
| tg $\delta$ | 9.45195 |
| | 9.14698 |
| | + 0.1403 |
| m | 46,0861 |
| | 46,2264 |
| | 385,85 |
| f n cos d | 1.30206 |
| | + 20,0476 17 |
| | 1403332 |
| | 200476 |
| | 340,8092 |
| f g cos g+d | 1.0619 |
| f h cos $\delta$ sin | 0.3477 |
| | + 11,53 |
| | + 2,23 |
| | + 7,10 |
| | + 20,86 |

October 17

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | * | | (247) | | $\Delta\alpha$ | $\Delta\delta$ | | | |
| g | 326 | 20' | $21^h$ | $7^m 43^s,50$ | $21^h$ | $13^m$ | $4^s,75$ | $+5^m 21,25$ | |
| d | 1 | 31 v | 21 | 7 43,25 | 21 | 13 | 4,75 | +5 21,50 | |
| H | 63 | 10 | 21 | 15 22,00 | 21 | 20 | 43,00 | +5 21,00 | |
| g+d | 327 | 51 v | 21 | 15 22,00 | 21 | 20 | 43,00 | +5 21,00 | |
| cos | 9.9277 | | 21 | 28 17.25 | 21 | 33 | 37.25 | +5 20,00 | |
| g | 1.1342 | | 21 | 28 16,75 | 21 | 33 | 37.50 | +5 20,75 | |
| sin | 9.7259n | | 21 | 36 47.00 | 21 | 42 | 6.50 | +5 19,50 | |
| tg $\delta$ | 9.4533 | | 21 | 36 47.00 | 21 | 42 | 6,75 | +5 19.75 | |
| | 0.3134n | | 21 | 44 53,25 | 21 | 50 | 13,00 | +5 19,75 | - 148,95 |
| | - 2,06 | | 21 | 44 53,50 | 21 | 50 | 12,75 | +5 19,25 | 139.66 |
| f | + 26,03 | | 21 | 52 26,25 | 21 | 57 | 45,50 | +5 19,25 | 139.85 |
| | + 23,97 | | 21 | 52 26,50 | 21 | 57 | 45,50 | +5 19,00 | 134,77 |
| | + 17.91 | | 22 | 0 14,75 | 22 | 5 | 33,75 | +5 19,00 | 134,96 |
| | + 41.88 | | 22 | 0 14.75 | 22 | 5 | 33,25 | +5 18,50 | 134,00 |
| H+d | 64 | 41 v | 22 | 14 0.75 | 22 | 19 | 18,50 | +5 17,75 | 132,54 |
| sin $\delta$ | 9.4365 | | 22 | 14 0.50 | 22 | 19 | 18,25 | +5 17,75 | 129,64 |
| cos | 9.6310 | | | | | | | | |
| h | 1.2802 | | | | | | | | |
| sin | 9.9561 v | | | | | | | | |
| sec $\delta$ | 0.0168 | | | | | | | | |
| | 1.2531 v | | | | | | | | |
| f cos d | 0.8682 | | | | | | | | |
| cos $\delta$ | 9.9832 | | | | | | | | |
| f cos $\delta$ | 0.8514 | | | | | | | | |

$21^h 45^m 17^s.75 + 5^m 19^s.688 - 136'',80$
$- 0\ 46,67$
$21\ 44\ 31,08$ Sternzeit
$13\ 45\ 43,57$
$7\ 58\ 47,51$
$- 1\ 18,44$
$7^h 57^m 29^s,07$ m. Z.

* 1) oben (247)

| | | | |
|---|---|---|---|
| 69 | | 53,5 | |
| 52,5 | | 27,5 | |
| 121,5 | 16,5 | 81 | 26 |
| 084 58 | 1.21748 | 1.90849 | 1.41497 |
| 9 83 15 | 9.98315 | 9.98323 | 9.98323 |
| 9 30 72 | 0.06362 | 9.75471 | 9.26119 |
| 58° 29,37' | | 34 38,63 | |
| .71822 | 266,89 | 9.91524 | |
| .99707 | 415,84 | 9.99264 v | |
| .42633 | - 148,95 | 2.61892 v | |

2) oben

| | | | |
|---|---|---|---|
| 69 | | 54 | |
| 52 | | 30 | |
| 121 | 17 | 84 | 24 |
| 2.08279 | 1.23045 | 1.92428 | 1.38021 |
| 9.98315 | 9.98315 | 9.98323 | 9.98323 |
| 9.92893 | 9.07659 | 9.77050 | 9.22643 |
| 58 6,50 | | 36 7,39 | |
| 9.72289 | 269.66 | 9.90727 v | |
| 9.99689 | 409,32 | 9.99375 | |
| 2.43082 | - 139,66 | 2.61206 v | |

3) oben

| | | | |
|---|---|---|---|
| 69,5 | | 55,5 | |
| 53,5 | | 33 | |
| 123 | 16 | 88,5 | 22,5 |
| 2.08991 | 1.20412 | 1.94694 | 1.35218 |
| 9.98315 | 9.98315 | 9.98323 | 9.98323 |
| 9.93605 | 9.05026 | 9.79316 | 9.19840 |
| 59 39,86 | | | |
| 9.70335 | 397.86 | 9.89417 | |
| 9.99724 v | 258,01 | 9.99452 | |
| 2.41163 v | - 139,85 | 2.59973 | |

4) oben

| | | | |
|---|---|---|---|
| 70 | | 57 | |
| 54 | | 35,5 | |
| 124 | 16 | 92,5 | 21,5 |
| .09342 | 1.20412 | 1.96614 | 1.33244 |
| 9 8315 | 9.98315 | 9.98323 | 9.98323 |
| .93956 | 9.05026 | 9.81236 | 9.17866 |
| | | 40° 28,73 | |
| 9.69276 | 251,79 | 9.88118 | |
| 9.99724 | 386,56 | 9.99499 v | |
| 2.40104 | - 134.77 | 2.58721 v | |

5) unten

| | | | |
|---|---|---|---|
| 56,5 | | 70 | |
| 35 | | 53,5 | |
| 91,5 | 21,5 | 123,5 | 16,5 |
| 1.96142 | 1.33244 | 2.09167 | 1.21748 |
| 9.98315 | 9.98315 | 9.98323 | 9.98323 |
| 9.80756 | 9.17858 | 9.93789 | 9.06370 |
| 9.88461 | 389.63 | 9.69787 | |
| 9.99500 | 254,67 | 9.99707 | |
| 2.59065 | - 134,96 | 2.40598 | |

6) unten

| | | | |
|---|---|---|---|
| 55,5 | | 69 | |
| 33 | | 53 | |
| 88,5 | 22,5 | 122 | 16 |
| 1.94694 | 1.35218 | 2.08636 | 1.20412 |
| 9.98315 | 9.98315 | 9.98323 | 9.98323 |
| 9.79308 | 9.19832 | 9.93258 | 9.05034 |
| | | 58 53,62 | |
| 9.89422 | 397.91 | 9.71318 | |
| 9.99452 | 263,91 | 9.99724 | |
| 2.59978 | - 134,00 | 2.42146 | |

7) unten

| | | | |
|---|---|---|---|
| 54,5 | | 68,5 | |
| 32,5 | | 52,5 | |
| 87 | 22 | 121 | 16 |
| .93952 | 1.34242 | 2.08279 | 1.20412 |
| .98315 | 9.98315 | 9.98323 | 9.98323 |
| .78566 | 9.18856 | 9.92901 | 9.05034 |
| .89875 | | 9.72269 | |
| .99476 | 402,30 | 9.99724 | |
| .60455 | 269.76 | 2.43097 | |
| | - 132,54 | | |

8) unten

| | | | |
|---|---|---|---|
| 53,5 | | 68 | |
| 29 | | 50,5 | |
| 82,5 | 24,5 | 118,5 | 17,5 |
| 1.91645 | 1.38917 | 2.07372 | 1.24304 |
| 9.98315 | 9.98315 | 9.98323 | 9.98323 |
| 9.76259 | 9.23531 | 9.91994 | 9.08926 |
| 35 22,33 | | | |
| 9.91138 | | 9.74453 | |
| 9.99348 | 412,95 | 9.99670 | |
| 2.61590 | 283,31 | 2.45227 | |
| | - 129,64 | | |

# (247) Einrede.

1892 October 24 $9^h\ 28^m\ 48^s,4$ m. Z.

1875,0 $23^h\ 58^m\ 17^s.66 + 16°\ 22'\ 27''.7$ Berlin A.G. 9772 2 Beob.

1892,0 $23^h\ 59^m\ 9^s.854 + 16°\ 28'\ 8''.60$ Berlin A.G. 9772

$+\ 2.745 \quad +\ 21.37$

$23^h\ 59\ 12.599 + 16°\ 28'\ 29''.97$

$+\ 3'\ 35.875 \quad -\ 0\ 5.91$

(247) $0^h\ 2^m\ 48^s.474 + 16°\ 27'\ 34''.06$ 10 V.

C.w. Par. $-\ 0^s,026 \quad +\ 4'',13$

C.d.E $-\ 9^s,63 \quad -\ 2'\ 37'',1$

1883,5

$\alpha$ 359° 40.94

$\delta$ +16° 25,30

cos$\alpha$ 9.99999

$n$ 1.30219

sin$\alpha$ 7.74385$n$

tg$\delta$ 9.46942

8.51546$n$

$-0.0328$

$m$ 46,0861

46,0533 17

322373 1

460533

782,9061

lgcos$\alpha$ 1.30218

+20,0532 17

14037 24

200532

340,9044

October 24 * (247) $\Delta\alpha$

| | | | | | | |
|---|---|---|---|---|---|---|
| G | 327 25 | $23^h\ 10^m\ 59^s,25$ | $23\ 14\ 36,75$ | $+\ 3^m\ 37,50$ | | |
| $\alpha$ | 359 47 | $23\ 10\ 59,25$ | $23\ 14\ 37.25$ | $+\ 3\ 38,00$ | | |
| H | 55 49 | $16\ 26,00$ | $23\ 20\ 3,00$ | $+\ 3\ 37,00$ | | |
| G+$\alpha$ | 327 12 | $16\ 26,00$ | $23\ 20\ 2,75$ | $+\ 3\ 36,75$ | | |
| cos | 9.9246 | $27\ 39.75$ | $23\ 31\ 16,50$ | $+\ 3\ 36,75$ | | |
| $g$ | 1.1424 | $27\ 39.50$ | $23\ 31\ 16,00$ | $+\ 3\ 36,50$ | | |
| sin | 9.7338$n$ | $33\ 8,25$ | $23\ 36\ 44,00$ | $+\ 3\ 35,75$ | | |
| tg$\delta$ | 9.4707 | $33\ 8,00$ | $23\ 36\ 44,25$ | $+\ 3\ 36,25$ | | |
| | 0.3469$n$ | $38\ 57.75$ | $23\ 42\ 33,50$ | $+\ 3\ 35,75$ | | |
| | $-\ 2,22$ | $38\ 57.75$ | $23\ 42\ 33,75$ | $+\ 3\ 36,00$ | | |
| $f$ | $+\ 26,85$ | $44\ 32,50$ | $23\ 48\ 8,25$ | $+\ 3\ 35,75$ | $-$ | 62 |
| | $+\ 24,63$ | $44\ 32,50$ | $23\ 48\ 8,00$ | $+\ 3\ 35,50$ | | 59 |
| | $+\ 16,55$ | $50\ 49.00$ | $23\ 54\ 24,25$ | $+\ 3\ 35,25$ | | 60 |
| | $+\ 41.18$ | $50\ 48,75$ | $23\ 54\ 24,00$ | $+\ 3\ 35,25$ | | 53 |
| H+$\alpha$ | 55 36 | $56\ 23,25$ | $23\ 59\ 58,25$ | $+\ 3\ 35,00$ | | 53 |
| sin$\delta$ | 9.4525 | $56\ 23,25$ | $23\ 59\ 58,50$ | $+\ 3\ 35,25$ | | 53 |
| cos | 9.7520 | $0\ 1\ 44,50$ | $0\ 5\ 19.00$ | $+3\ 34,50$ | | 52 |
| $h$ | 1.2842 | $0\ 1\ 44,00$ | $0\ 5\ 19.25$ | $+3\ 35,25$ | | 58 |
| sin | 9.9165 | $0\ 8\ 12,00$ | $0\ 11\ 46,75$ | $+3\ 34,75$ | | 57 |
| sec$\delta$ | 0.0182 | $0\ 8\ 11,75$ | $0\ 11\ 46,50$ | $+3\ 34,75$ | | 44 |
| | 1.2189 | | | | | |
| tg | 0.8393 | | | | | |
| cos$\delta$ | 9.9818 | | | | | |
| lgcos$\delta$ | 0.8211 | | | | | |

$23^h\ 44^m\ 29^s,02 + 3^m\ 35^s,875 - 5$

$-\ 0\ 47,74$

$23^h\ 43^m\ 41,28$ Sternzeit

$14\ 13\ 19,44$

$9\ 30\ 21,84$

$-\ 1\ 33,44$

$9^h\ 28^m\ 48^s,40$ m. Z.

| * | 1) oben | (247) | |
|---|---|---|---|
| 63,5 | | 56,5 | |
| 44,5 | | 32,5 | |
| 108 | 19 | 89 | 24 |
| 2.03342 | 1.27875 | 1.94939 | 1.38021 |
| 9.98179 | 9.98179 | 9.98183 | 9.98183 |
| 9.87820 | 9.12353 | 9.79421 | 9.22503 |
| | | 38 30,37 | |
| 9.81639 | 333,85 | 9.89350 | |
| 9.99613 | 396,58 | 9.99379 | |
| 2.52356 | $-62.73$ | 2.59833 | |

| | 2) oben | | |
|---|---|---|---|
| 64 | | 58 | |
| 45 | | 33,5 | |
| 109 | 19 | 91,5 | 24,5 |
| 2.03743 | 1.27875 | 1.96142 | 1.38917 |
| 9.88221 | 9.12353 | 9.80624 | 9.23399 |
| 49 40,82 | | | |
| 9.81094 | 329,69 | 9.88553 | |
| 9.99613 | 389,14 | 9.99353 | |
| 2.51811 | $-59,45$ | 2.59010 | |

| | 3) unten | | |
|---|---|---|---|
| 55,5 | | 63 | |
| 33 | | 44 | |
| 88,5 | 22,5 | 107 | 19 |
| 1.94694 | 1.35218 | 2.02938 | 1.27875 |
| 9.79172 | 9.19696 | 9.87420 | 9.12357 |
| 38 14,75 | | 48 27,73 | |
| 9.89506 | 398,71 | 9.82159 | |
| 9.99455 | 337,88 | 9.99613 | |
| 2.60066 | $-60,83$ | 2.52876 | |

| | 4) unten | | |
|---|---|---|---|
| 55,5 | | 62 | |
| 32 | | 42,5 | |
| 87,5 | 23,5 | 104,5 | 19,5 |
| 1.94201 | 1.37107 | 2.01912 | 1.29003 |
| 9.78679 | 9.21585 | 9.86394 | 9.13485 |
| 37 44,29 | | 46 58,42 | |
| 9.89807 | 401,02 | 9.83400 | |
| 9.99405 | 347,51 | 9.99592 | |
| 2.60316 | $-53,51$ | 2.54096 | |

| | 5) unten | | |
|---|---|---|---|
| 54,5 | | 61 | |
| 31,5 | | 42,5 | |
| 86 | 23 | 103,5 | 18,5 |
| 1.93450 | 1.36173 | 2.01494 | 1.26717 |
| 9.77 | 0651 | 9.85976 | 9.11199 |
| 36 58,88 | | 46 23,33 | |
| 9.90245 | 405,32 | 9.83870 | |
| 9.99431 | 351,62 | 9.99633 | |
| 2.60780 | $-53,70$ | 2.54607 | |

| | 6) unten | | |
|---|---|---|---|
| 54 | | 61,5 | |
| 30 | | 41 | |
| 84 | 24 | 102,5 | 20,5 |
| 1.92428 | 1.38021 | 2.01072 | 1.31175 |
| 9.76906 | 9.22499 | 9.85554 | 9.15657 |
| 35 59.11 | | 45 48,58 | |
| 9.90804 | 410,08 | 9.84326 | |
| 9.99379 | 354,64 | 9.99548 | |
| 2.61287 | $-55,44$ | 2.54979 | |

| | 7) oben | | |
|---|---|---|---|
| 65 | | 59,5 | |
| 46,5 | | 38 | |
| 111,5 | 18,5 | 97,5 | 21,5 |
| 2.04727 | 1.26717 | 1.98900 | 1.33244 |
| 9.89205 | 9.11195 | 9.83382 | 9.17726 |
| | | 43 0,29 | |
| 9.79649 | 319.05 | 9.86410 | |
| 9.99633 | 371,68 | 9.99503 | |
| 2.50386 | $-52,63$ | 2.57017 | |

| | 8) oben | | |
|---|---|---|---|
| 66 | | 59,5 | |
| 47,5 | | 39 | |
| 113,5 | 18,5 | 98,5 | 20,5 |
| 2.05500 | 1.26717 | 1.99344 | 1.31175 |
| 9.89978 | 9.11195 | 9.83826 | 9.15657 |
| 52 33,22 | | 43 33,38 | |
| 9.78391 | | 9.86015 | |
| 9.99633 | 309,95 | 9.99549 | |
| 2.49128 | 368,71 | 2.56668 | |
| | $-58,76$ | | |

| | 9) oben | | |
|---|---|---|---|
| 66 | | 60 | |
| 48 | | 39,5 | |
| 114 | 18 | 99,5 | 20,5 |
| 2.05690 | 1.25527 | 1.99782 | 1.31175 |
| 9.90168 | 9.10005 | 9.84264 | 9.15657 |
| | | 44 6,64 | |
| 9.78063 | | 9.85612 | |
| 9.99653 | 307,75 | 9.99549 | |
| 2.48820 | 365,30 | 2.56265 | |
| | $-57,55$ | | |

| | 10) unten | | |
|---|---|---|---|
| 60 | | 65,5 | |
| 41,5 | | 47 | |
| 101,5 | 18,5 | 112,5 | 18,5 |
| 2.00647 | 1.26717 | 2.05115 | 1.26717 |
| 9.85125 | 9.11195 | 9.89597 | 9.11199 |
| 9.84771 | | 9.79026 | |
| 9.99633 | 358,99 | 9.99633 | |
| 2.55508 | 314,51 | 2.49763 | |
| | $-44,48$ | | |

## VIII 1894 Maerz 2

aus A.G.Z. von Bruns u. Peter mitgetheilt

| | | | | | |
|---|---|---|---|---|---|
| 50 | 8.0 | $11^h\,47^m\,57^s.74$ | $+10°\,44'\,39''.5$ | Ep. 1868,26 | |
| | 8.4 | 57.77 | 38.8 | 69.24 | |
| 5.0 | (8.2) | $11^h\,47^m\,57^s.755$ | $+10°\,44'\,39''.15$ | A.G.Z. Leipzig | |
| | | + 58,618 | − 6 20,54 | | |
| 4.0 | | $11^h\,48^m\,56^s,373$ | $+10°\,38'\,18''.61$ | A.G. Leipzig | |
| | | + 1,708 | − 10,49 | | |
| | | $11^h\,48^m\,58^s,081$ | $+10°\,38'\,8''.12$ | | |
| | | − 4 38,375 | + 0 27,66 | | |
| Cuxrate | | $11^h\,44^m\,19^s,706$ | $+10°\,38'\,35''.78$ | | |

4 Vgl. $11^m,3$

1884,5
α 177° 6.7
δ +10° 41,4
cos α 9.99945n
n 1.30219
sin α 8.70216v
tg δ 9.27599
9.28034v
+ 0.1907
m 46,0864
46,2771

lg cos α 1.30164n
− 20,0282

lg cos(α+δ) 9.9926n
− 0,98
− 7.62
− 1.89
Δδ − 10,49

94 Maerz 2 $10^h\,49^m\,53^s$ m.Z.

C. w.P. $-0^s,109$ + 3,12

r.d. Eph im Jahrb. Seite 430 $+0^s,180$ + 3,66 v

Rechn. $11^h\,44^m\,19^s.42$ + 10° 38' 35,2 v

Maerz 2 — (247) — *

| | | | | | | Δα | Δδ |
|---|---|---|---|---|---|---|---|
| g | 284 0 | 8 48 35,25 | 8 53 11,25 | − | | 4m 36,00 | |
| α | 177 14 | 8 48 35,00 | 8 53 11.25 | | | 4 36,25 | |
| H | 289 7 | 8 57 23,00 | 9 1 59.25 | | | 4 36,25 | |
| g+α | 101° 14' | 8 57 22,75 | 9 1 59.50 | | | 4 36,75 | |
| cos | 9.2896n | 10 0 19.25 | 10 4 59.25 | | | 4 40,00 | + 20,88 |
| g | 0.9859 | 10 0 20,00 | 10 4 59.50 | | | 4 39,50 | 29.24 |
| sin | 9.9916 | 10 20 40,00 | 10 25 21.00 | | | 4 41,00 | 33,43 |
| tg δ | 9.2738 | 10 20 39.75 | 10 25 21.00 | | | − 4 41,25 | 27.08 |
| | 0.2513 | $9^h\,31^m\,44^s.37$ | | | | −4m 38,375 | + 27.66 |
| | + 1.78 | + 0 53,78 | | | | | |
| f | + 5,37 | $9^h\,32^m\,38^s.15$ | Sternzeit | | | | |
| | +18,47 | 22 40 58,36 | | | | | |
| Δα | +25,62 | 10 51 39.79 | | | | | |
| | | − 1 46.76 | | | | | |
| H+α | 106 21 | $10^h\,49^m\,53^s.03$ m.Z. | | | | | |

sin δ 9.2663

| | 65 | 4) unten | 66 | |
|---|---|---|---|---|
| cos | 9.4495n | 45,5 | 50 | |
| h | 1.2768 | 110,5 | 49,5 | 116 16 |
| sin | 9.9821 | 2.04336 | 1.29003 | 2.06446 1.20412 |
| sec δ | 0.0075 | 9.89881 | 9.14548 | 9.91993 9.05959 |
| | 1.2664 | | | |
| lgi | 0.8896n | | | |
| lcos δ | 9.9925 | 9.78556 | 310,69 | 9.74455 |
| licos δ | 0.8821n | 9.99572 | 283,61 | 9.99713 |
| lgcos | 0.2755n | 2.49232 | +27.08 | 2.45272 |

| | | | | | |
|---|---|---|---|---|---|
| 61,5 | 1) oben | 59,5 | | | |
| 43,0 | | 39,5 | | | |
| 104,5 | 18,5 | 99 | 20 | | |
| 01912 | 1.26717 | 1.99564 | 1.30103 | | |
| 87457 | 9.12262 | 9.85111 | 9.15650 | | |
| 82112 | 337.53 | 9.84785 | | | |
| 99614v | 358.41 | 9.99549 | | | |
| 52830v | + 20,88 | 2.55438 | | | |

| | | | | | |
|---|---|---|---|---|---|
| 64 | 2) oben | 60,5 | | | |
| 44,5 | | 41 | | | |
| 108,5 | 19,5 | 101,5 | 19,5 | | |
| 2.03543 | 1.29003 | 2.00647 | 1.29003 | | |
| 9.89088 | 9.14548 | 9.86194 | 9.14550 | | |
| 9.79829v | 319.93 | 9.83627v | | | |
| 9.99572 | 349.17 | 9.99572 | | | |
| 2.50505v | + 29,24 | 2.54303v | | | |

| | | | | | |
|---|---|---|---|---|---|
| 65,5 | 3) unten | 68,5 | | | |
| 48 | | 51 | | | |
| 113,5 | 17,5 | 119,5 | 17,5 | | |
| 2.05500 | 1.24304 | 2.07737 | 1.24304 | | |
| 9.91045 | 9.09849 | 9.93284 | 9.09851 | | |
| 9.76442 | 296,50 | 9.71247 | | | |
| 9.99656 | 263,07 | 9.99655v | | | |
| 2.47202 | + 33,43 | 2.42006v | | | |

## 1894 Maerz 3

| | | | | | |
|---|---|---|---|---|---|
| 5,0 | (8.6) | $11^h\,43^m\,55^s,89$ | $+10°\,45'\,46''.5$ | Leipzig A.G. 24 | 1869.24 |
| | (8.6) | 55,95 | 47,1 | | 68.26 |
| 5,0 | (8.6) | $11^h\,43^m\,55^s,92$ | $+10°\,45'\,46''.80$ | A.G. Leipzig | |
| | | + 58,704 | − 6 20,13 | | |
| 94,0 | | $11^h\,44^m\,54^s,624$ | $+10°\,39'\,26''.67$ | A.G. Leipzig | |
| | | + 1,727 | − 10,29 | | |
| | | $11^h\,44^m\,56^s,351$ | $+10°\,39'\,16''.38$ | | |
| | | − 1 39,635 | − 0 50,19 | | |
| Cuxrate | | $11^h\,43^m\,16^s.716$ | $+10°\,38'\,26''.19$ | | |

12 Vgl. $11^m,2$ v

94 Maerz 3 $8^h\,54^m\,25^s$ m.Z.

C. w. Par. $-0^s,17$ + 3,3

C. d. Eph. $+0^s,28$ − 1,35 v

Rechn. $11^h\,43^m\,16^s,264 + 10°\,38'\,30''.86$ v

Corr $+0^s,278$

$7^h\,40^m\,47^s.92$
$22\,44\,54,91$
$8\,55\,53,01$
$-1\,27.79$
$8^h\,54^m\,25^s.22$ m.Z.

1884.5
α 176 6,33
δ +10° 42,61
cos α 9.99899n
n 1.30219
sin α 8.83199
tg δ 9.27677
9.41095
+0.2576
m 46,0864
46,3440

lg cos α 1.30118n
− 20,0068

| | | |
|---|---|---|
| lg cos(α+δ) | 9.9926n | 9.9926n |
| | − 7,66 | − 7,70 |
| | − 1,76 | − 1,81 |
| | − 0,87 | − 0,80 |
| Δδ | − 10,29 | − 10,31 |

Maerz 3 — Maerz 4 — (247) — *

| | | | | | | Δα | Δδ |
|---|---|---|---|---|---|---|---|
| g | 284 13 | 284 28 | | | | m s | |
| α | 176 14 | 176 14 | | | | | |
| H | 288 7 | 287 4 | $6^h\,58^m\,50,00$ | $7^h\,0^m\,27.75$ | − | 1 37.75 | − 45,33 |
| g+α | 100 27 | 100 42 | 6 58 49.75 | 7 0 27.50 | | 37.75 | 47,74 |
| cos | 9.2586n | 9.2687n | 7 6 39.25 | 7 8 17.25 | | 38,00 | 53,12 |
| g | 0.9869 | 0.9879 | 7 6 39.50 | 7 8 17.50 | | 38,00 | 54,88 |
| sin | 9.9927 | 9.9924 | 7 13 31,00 | 7 15 9.75 | | 38.75 | 49.30 |
| tg δ | 9.2746 | 9.2746 | 7 13 31,00 | 7 15 9.00 | | 38.00 | 51.79 |
| | 0.2542 | 0.2549 | 7 20 33,75 | 7 22 12,00 | | 38,25 | 47.41 |
| | + 1.80 | + 1.80 | 7 20 34,00 | 7 22 12,25 | | 38,25 | 55.47 |
| f | + 5,47 | + 5,51 | 7 28 12,50 | 7 29 52,00 | | 39,50 | 45.36 |
| | +18,63 | +18,70 | 7 28 13,50 | 7 29 51,50 | | 38,00 | 49.03 |
| Δα | +25.90 | +26.07 | 7 35 52,25 | 7 37 31,25 | | 39,00 | 50.19 |
| H+α | 104 21 | 103 18 | 7 35 52,00 | 7 37 31,50 | | 39,50 | 52,71 |
| sin δ | 9.2670 | 9.2670 | 7 43 33,25 | 7 45 13,25 | | 40,00 | |
| cos | 9.3942n | 9.3618n | 7 43 33,75 | 7 45 13,00 | | 39,25 | − 50,1 |
| h | 1.2764 | 1.2761 | 7 51 48,25 | 7 53 28,50 | | 40,25 | |
| sin | 9.9862 | 9.9882 | 7 51 48,25 | 7 53 28,75 | | 40,50 | |
| sec δ | 0.0075 | 0.0075 | 7 58 40,00 | 8 0 20,75 | | 40,75 | |
| | 1.2701 | 1.2718 | 7 58 40,50 | 8 0 21.00 | | 40,50 | |
| lgi | 0.8917n | 0.8939n | 8 6 52,00 | 8 8 33,50 | | 41,50 | |
| lcos δ | 9.9925 | 9.9925 | 8 6 52,50 | 8 8 33,00 | | 40,50 | |
| licos δ | 0.8842n | 0.8864n | 8 13 3,25 | 8 14 44,75 | | 41,50 | |
| lgcos | 0.2455n | 0.2566n | 8 13 3,25 | 8 14 45,00 | | 41,75 | |
| lhcos(α+δ) | 9.9376n | 9.9049n | 8 21 17.50 | 8 22 59.25 | | 41,75 | |
| | | | 8 21 17.00 | 8 22 59.25 | − 1 | 42,25 | |

$7\,39\,54,50$
$+\,0\,53,42$
$7^h\,40^m\,47^s.92$ Sternzeit

$-1^m\,39^s,635$

# Eukrate

247

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 54 | 1) oben | 59,5 | | 54,5 | 2) oben | 60,5 | | 62 | 3) oben | 55,5 | |
| 29,5 | | 39 | | 31 | | 40,0 | | 42 | | 33,0 | |
| 83,5 | 24,5 | 98,5 | 20,5 | 85,5 | 23,5 | 100,5 | 20,5 | 104 | 20 | 88,5 | 22,5 |
| 1.92169 | 1.38917 | 1.99344 | 1.31175 | 1.93197 | 1.37107 | 2.00217 | 1.31175 | 2.01703 | 1.30103 | 1.94694 | 1.35 |
| 9.77715 | 9.24463 | 9.84887v | 9.16718v | 9.78743 | 9.22653 | 9.85760v | 9.16718v | 9.87249 | 9.15649 | 9.80237v | 9.20 |
| 9.90366 | | 9.85009v | | 9.89769 | | 9.84104 | | 9.82375 | | 9.88817v | |
| 9.99319 | 405,41 | 9.99526 | | 9.99375 | 400,39 | 9.99526 | | 9.99549 | 339.06 | 9.99427 | |
| 2.60789 | 360,08 | 2.55639v | | 2.60248 | 352,65 | 2.54734 | | 2.53028 | 392.18 | 2.59348v | |
| | − 45,33 | | | | − 47.74 | | | | − 53.12 | | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 62,5 | 4) unten | 56 | | 61 | 5) unten | 55 | | 58,5 | 6) oben | 64,5 | |
| 42 | | 32,5 | | 41 | | 32 | | 38 | | 45,0 | |
| 104,5 | 20,5 | 88,5 | 23,5 | 102 | 20 | 87 | 23 | 96,5 | 20,5 | 109,5 | 19,5 |
| 2.01912 | 1.31175 | 1.94694 | 1.36907 | 2.00860 | 1.30103 | 1.93952 | 1.36173 | 1.98453 | 1.31175 | 2.03941 | 1.290 |
| 9.87458 | 9.16721 | 9.80237v | 9.22650v | 9.86406 | 9.15649 | 9.79495v | 9.21716v | 9.83999 | 9.16721 | 9.89484v | 9.145 |
| 9.82111 | 336,83 | 9.88817v | | 9.83386 | 347.05 | 9.89303 | | 9.85858 | 367.18 | 9.79209 | |
| 9.99526 | 391.71 | 9.99375 | | 9.99549 | 396,35 | 9.99401 | | 9.99526 | 315.39 | 9.99572 | |
| 2.52741 | − 54,88 | 2.59296v | | 2.54039 | − 49,30 | 2.59808 | | 2.56488 | − 51.79 | 2.49885 | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 59,5 | 7) oben | 64,5 | | 59,5 | 8) oben | 65 | | 62 | 9) unten | 56,5 | |
| 39,5 | | 46,0 | | 38,5 | | 46,5 | | 43 | | 36 | |
| 99 | 20 | 110,5 | 18,5 | 98,0 | 21 | 111,5 | 18,5 | 105 | 19 | 92,5 | 20,5 |
| 1.99564 | 1.30103 | 2.04336 | 1.26717 | 1.99123 | 1.32222 | 2.04727 | 1.26717 | 2.02119 | 1.27875 | 1.96614 | 1.3117 |
| 9.85110 | 9.15649 | 9.89879v | 9.12260v | 9.84669 | 9.17768 | 9.90270v | 9.12260v | 9.87665 | 9.13421 | 9.82157v | 9.1671 |
| 9.84786 | | 9.78559 | | 9.85225 | | 9.77883 | | 9.81843 | | 9.87421 | |
| 9.99549 | 358,42 | 9.99614v | | 9.99502 | 361,67 | 9.99614v | | 9.99593v | 335,28 | 9.99526 | |
| | 311,01 | | | | 306,20 | | | | 380,64 | | |
| 2.55439 | − 47,41 | 2.49277v | | 2.55831 | − 55,47 | 2.48601v | | 2.52540v | − 45,36 | 2.58051 | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 62 | 10) unten | 57 | | 61,5 | 11) unten | 55,5 | | 58 | 12) oben | 63,5 | |
| 43 | | 34 | | 42,5 | | 34,0 | | 36 | | 44,5 | |
| 105 | 19 | 91 | 23 | 104 | 19 | 89,5 | 21,5 | 94 | 22 | 108 | 19 |
| | | 1.95904 | 1.36173 | 2.01703 | 1.27875 | 1.95182 | 1.33244 | 1.97313 | 1.34242 | 2.03342 | 1.2787 |
| | | 9.81447v | 9.21716v | 9.87247 | 9.13421 | 9.80725v | 9.18787v | 9.82859 | 9.19788 | 9.88885v | 9.1341 |
| wie 9) | 335,28 | 9.87963 | | 9.82377 | 339,43 | 9.88482 | | 9.86854 | 375,07 | 9.80137 | |
| | 384,31 | 9.99401 | | 9.99593v | 389,62 | 9.99478 | | 9.99453 | 322,36 | 9.99593v | |
| | − 49,03 | 2.58468 | | 2.53074v | − 50,19 | 2.59064 | | 2.57411 | − 52,71 | 2.50834v | |

---

## 1894 Maerz 4

* wie am Tage vorher

1894,0 $11^h\ 44^m\ 54^s,624$ $+10°\ 39'\ 26'',67$ A.G. Leipzig

$11^h\ 44^m + 1,738 \quad - 10,31$

$11^h\ 44^m\ 56^s,362$ $+10°\ 39'\ 16'',36$

$- 2\ 47.950 \quad - 0\ 53,39$

Eukrate $11^h\ 42^m\ 8^s,412$ $+10°\ 38'\ 22'',97$ 57 Vgl.

1894 Maerz 4 $8^h\ 37^m\ 4^s$ m. Z.

C. w. Par. $- 0^s,18 \quad + 3'',34$

Corr. d. Eph. $+ 0^s,215 \quad + 3'',05$ V

Rechn. $11^h\ 42^m\ 8^s,02 \quad + 10°\ 38'\ 23'',26$ V

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 62,5 | 1) oben | 66,5 | | 67 | 2) oben | 67 | | | | | |
| 42 | | 48,5 | | 42,5 | | 49 | | | | | |
| 104,5 | 20,5 | 115 | 18 | 105 | 20 | 116 | 18 | | | | |
| 2.01912 | 1.31175 | 2.06070 | 1.25527 | 2.02119 | 1.30103 | 2.06446 | 1.25527 | | | | |
| 9.87458 | 9.16721 | 9.91613v | 9.11070v | 9.87665 | 9.15649 | 9.91989v | 9.11070v | | | | |
| 9.82111 | 336,83 | 9.75283 | | 9.81843 | 334.93 | 9.74463 | | | | | |
| 9.99526 | 288,55 | 9.99635 | | 9.99549 | 283,15 | 9.99635 | | | | | |
| 2.52741 | − 48,28 | 2.46022 | | 2.52496 | − 51,78 | 2,45202 | | | | | |

247

| | * | $\Delta\alpha$ | $\Delta$ |
|---|---|---|---|
| $7^h\ 7\ 19.75$ | $7\ 10\ 6,75$ | $- 2^m\ 47,00$ | |
| 7 7 19.00 | 7 10 6,75 | 47,75 | |
| 7 14 52,25 | 7 17 39.50 | 47,25 | |
| 7 14 51,75 | 7 17 39.50 | 47.75 | |
| 7 26 16,50 | 7 29 4,50 | 48,00 | |
| 7 26 15,50 | 7 29 4,00 | 48,50 | − 48, |
| 7 37 11.00 | 7 39 59.50 | 48,50 | 51, |
| 7 37 11,25 | 7 39 59.25 | 48,00 | 52, |
| 7 46 40,50 | 7 49 28,50 | 48,00 | 53, |
| 7 46 39.75 | 7 49 28,50 | − 2 48.75 | 60, |
| | | $-2^m\ 47^s,950$ | − 53 |

$7^h\ 26^m\ 27^s.72$

$+\ 0\ 53,04$

$7^h\ 27\ 20.76$ Sternzt

22 48 51.47

8 38 29,29

$-\ 1\ 24,94$

$8^h\ 37^m\ 4^s,35$ m. Z.

| 63 | 3/ober | 67 | |
|---|---|---|---|
| 43 | | 50 | |
| 106 | 20 | 117 | 17 |
| 2.02531 | 1.30103 | 2.06819 | 1.23045 |
| 1.88077 | 9.15649 | 9.92362v | 9.08588v |
| 9.81292 | | 9.73602 | |
| 9.99549 | 330,71 | 9.99675 | |
| 51945 | 277.85 | 2.44381 | |
| | −52,86 | | |

| 66 | 4/unten | 59 | |
|---|---|---|---|
| 44,5 | | 38,5 | |
| 110,5 | 21,5 | 97,5 | 20,5 |
| 2.04336 | 1.33244 | 1.98900 | 1.31175 |
| 9.89882 | 9.18790 | 9.84443v | 9.16718v |
| 9.78554 | | 9.85442 | |
| 9.99478 | 310,00 | 9.99526 | |
| 2.49136 | 363,68 | 2.56072 | |
| | −53,68 | | |

| 65 | 5/unten | 56 | |
|---|---|---|---|
| 43,5 | | 37 | |
| 108,5 | 21,5 | 93 | 19 |
| 2.03543 | 1.33244 | 1.96848 | 1.27875 |
| 9.89089 | 9.18790 | 9.82391v | 9.13418v |
| 9.79828 | | 9.87235v | |
| 9.99478 | 319.23 | 9.99593v | |
| 2.50410 | 379.60 | 2.57933 | |
| | −60,37 | | |

## 1894 Maerz 27

Leipzig

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1875,0 | 8.6 | 11h 24m 33s.06 | +10° 18′ | 42″,7 | A.G. Zp. 1869.24 | | |
| | 8.5 | 33.01 | | 44,2 | | 68.26 | |
| 1875,0 | | 11h 24m 33s,035 | +10° 18′ | 43″,45 | A.G. | | |
| | | + 59.075 | − 6 | 16,60 | | | |
| 94,0 | | 11h 25 32,110 | +10 12′ | 26,85 | A.G. Leipzig | | |
| | | + 1,867 | − | 8,99 | | | |
| | | 11h 25m 33s.977 | +10° 12′ | 17″,86 | | | |
| | | − 9 20.903 | + 1 | 28,99 | | | |
| Pulkowa | | 11h 16m 13s,074 | +10° 13′ | 46″,85 | 10 Vgl. | | |

1894 Maerz 27 $9^h 34^m 5^s$ m. Z. $11^m,3$

C. p. Par. $-0^s,07$ $+2″,96$

Corr. d. Eph. $+0^s,450$ $+0″,46$ v.

Rechn $11^h 16^m 12^s,56$ $+10° 13′ 49″,35$ v

| | Maerz 27 | Maerz 28 | (247) | | Δα | Δδ |
|---|---|---|---|---|---|---|
| 1884,5 | | | | | | |
| α | 171° 15′,67 | | | | | |
| δ | + 10° 15′,58 | | | | | |
| cos | 9.99493n | | | | | |
| n | 1.30219 | | | | | |
| sin | 9.18167 | | | | | |
| 45 | 9.25769 | | | | | |
| | 9.74155 | | | | | |
| | + 0,5515 | | | | | |
| m | 46,0864 | | | | | |
| | 46,6379 | | | | | |
| | | | | | | |
| | mcos 1.29712n | | | | | |
| | − 19,8209 | | | | | |
| g | 289 55 | 290 10 | $8^h$ 48 32,00 | 8 57 50,25 | $-9^m$ 18,25 | |
| α | 171 23 | 171 23 | 8 48 32,00 | 8 57 49.75 | 9 17,75 | |
| H | 262 9 | 261 6 | 9 2 30,00 | 11 48,25 | 9 18,25 | |
| g+α | 101 18 | 101 33 | 9 2 29.75 | 11 48,75 | 9 19.00 | |
| cos | 9.2921 n | 9.3015 n | 9 16 46,25 | 26 5,75 | 9 19,50 | |
| g | 1.0053v | 1.0058v | 9 16 46,25 | 26 5,25 | 9 19,00 | |
| sin | 9.9915 | 9.9911 | 9 31 56,50 | 41 16,75 | 9 20,25 | |
| hδ | 9.2554 | 9.2554 | 9 31 56,50 | 41 16,50 | 9 20,00 | |
| | 0.2522v | 0.2523v | 9 45 33,00 | 54 53,50 | 9 20,50 | |
| | + 1.79 | + 1.79 | 9 45 32,25 | 54 53,25 | 9 21,00 | |
| f | + 7.91 | + 8,02 | 9 59 54,25 | 9 15,00 | 9 20,75 | + 100,05 |
| | + 18.30 | + 18,21 | 9 59 53,75 | 9 15,25 | 9 21,50 | 93,36 |
| Δα | + 28″,00 | + 28″,02 | 10 15 8,50 | 24 30,25 | 9 21,75 | 97,04 |
| H+α | 73 32 | 72 29 | 10 15 8,25 | 24 29.75 | 9 21,50 | 87.68 |
| sin δ | 9.2485 | 9.2485 | 10 32 44,75 | 42 7.25 | 9 22,50 | 88,02 |
| cos | 9.4525 | 9.4785 | 10 32 45,00 | 42 7.50 | 9 22,50 | 84,96 |
| h | 1.2738 | 1.2740 | 10 45 53,00 | 55 16,00 | 9 23,00 | 86,05 |
| sin | 9.9818 | 9.9794 | 10 45 53,00 | 55 16,50 | 9 23,50 | 76,49 |
| sec δ | 0.0069 | 0.0069 | 11 4 37.75 | $11^h$ 14 1.50 | 9 23,75 | 90,59 |
| | 1.2625 | 1.2603 | 11 4 37.75 | $11^h$ 14 1.50 | 9 23,75 | 85,70 |
| fi | 0.9071n | 0.9061n | $9^h 54^m 21^s,52$ | | $-9^m 20^s,900$ | + 88″,99 |
| cos δ | 9.9931 | 9.9931 | + 0 50,13 | | − 0,003 | |
| fi cos δ | 0.9002n | 0.8992n | 9 55 11,65 | Sternz | | |
| fg cos | 0.2974vn | 0.3073vn | 0 19 32.19 | | | |
| ghem() sin δ | 9.9748 | 0.0010 | 9 35 39,46 | | | |
| | − 7.95 | − 7.93 | − 1 34,31 | | | |
| | − 1.98 | − 2,03 | $9^h 34^m 5^s,15$ | m. Z. | | |
| | − 9.93 | − 9.96 | | | | |
| | + 9,94 | + 1,00 | | | | |
| | − 8″,99 | − 8″,96 | = Δδ | | | |

| 66 | 1) oben | × 55,5 | |
|---|---|---|---|
| 48 | | 32,5 | |
| 114 | 18 | 88 | 23 |
| 2.05690 | 1.25527 | 1.94448 | 1.36173 |
| 9.91293 | 9.11130 | 9.80054 | 9.21779 |
| 9.75947 | | 9.88940 | |
| 9.99634 | 292,99 | 9.99399v | |
| 2.46685 | 393,04 | 2.59443v | |
| | + 100,05 | | |

| 66 | 2) oben | 56,5 | |
|---|---|---|---|
| 49,5 | | 36,5 | |
| 115,5 | 16,5 | 93 | 20 |
| .06258 | 1.21748 | 1.96848 | 1.30103 |
| 91861 | 9.07351 | 9.82454 | 9.15709 |
| 9.74748 | 285,40 | 9.87186 | |
| 9.99693 | 378,76 | 9.99547 | |
| 2.45545 | +93,36 | 2.57837 | |

| 67,5 | 3) oben | 58,5 | |
|---|---|---|---|
| 50,5 | | 37,5 | |
| 118 | 17 | 96 | 21 |
| 2.07188 | 1.23045 | 1.98227 | 1.32222 |
| 9.92791 | 9.08648 | 9.83833 | 9.17828 |
| 9.72552 | 271.21 | 9.86009 | |
| 9.99674v | 368,25 | 9.99500v | |
| 2.43330v | +97,04 | 2.56613v | |

| 57 | 4) unten | 65,5 | |
|---|---|---|---|
| 36 | | 49 | |
| 93 | 21 | 114,5 | 16,5 |
| 1.96848 | 1.32222 | 2.05881 | 1.21748 |
| 9.82451 | 9.17825 | 9.91487 | 9.07354 |
| 9.87189 | 378,39 | 9.75549 | |
| 9.99500v | 290.71 | 9.99693 | |
| 2.57793v | +87,68 | 2.46346 | |

| 56 | 5) unten | 65 | |
|---|---|---|---|
| 33,5 | | 47,5 | |
| 89,5 | 22,5 | 112,5 | 17,5 |
| 951 82 | 1.35218 | 2.05115 | 1.24304 |
| 80785 | 9.20821 | 9.90721 | 9.09910 |
| 9.88441 | | 9.77063 | |
| 9.99426 | 388,78 | 9.99655 | |
| 58971 | 300,76 | 2.47822 | |
| | +88,02 | | |

| 55,5 | 6) unten | 64 | |
|---|---|---|---|
| 31,5 | | 46,5 | |
| 87 | 24 | 110,5 | 17,5 |
| 1.93952 | 1.38021 | 2.04336 | 1.24304 |
| 9.79555 | 9.23624 | 9.89942 | 9.09910 |
| 9.89266 | | 9.78453 | |
| 9.99345v | 395,50v | 9.99655 | |
| 2.59715v | 310,54 | 2.49212 | |
| | +84,96v | | |

| 59 | 7) unten | 66,5 | |
|---|---|---|---|
| 38,5 | | 50,5 | |
| 97,5 | 20,5 | 117 | 16 |
| 1.98900 | 1.31175 | 2.06819 | 1.20412 |
| 9.84503 | 9.16778 | 9.92425 | 9.06018 |
| 9.85385 | | 9.73455 | |
| 9.99524v | 363,19 | 9.99711v | |
| 2.56013v | 277,14 | 2.44270v | |
| | + 86,05 | | |

8)oben

| | | | |
|---|---|---|---|
| 66,5 | | 58,5 | |
| 48,0 | | 38 | |
| 114,5 | 18,5 | 96,5 | 20,5 |
| 2.05881 | 1.26717 | 1.98453 | 1.31175 |
| 9.91484 | 9.12320 | 9.84059 | 9.16781 |
| 9.75565 | 290,21 | 9.85803 | |
| 9.99613 | 366,70 | 9.99524v | |
| 2.46272 | +76,49 | 2.56431v | |

9)oben

| | | | |
|---|---|---|---|
| 68 | | 59 | |
| 50 | | 39 | |
| 118 | 18 | 98 | 20 |
| 2.07188 | 1.25527 | 1.99123 | 1.30103 |
| 9.92791 | 9.11130 | 9.84729 | 9.15709 |
| 9.72552 | 270,96 | 9.85166 | |
| 9.99634 | 361,55 | 9.99547 | |
| 2.43290 | +90,59 | 2.55817 | |

10)unten

| | | | |
|---|---|---|---|
| 54,5 | | 64 | |
| 33,5 | | 47 | |
| 88 | 21 | 111 | 17 |
| 1.94448 | 1.32222 | 2.04532 | 1.23045 |
| 9.80051 | 9.17825 | 9.90138 | 9.08651 |
| 9.88942 | 393,97 | 9.78115 | |
| 9.99500v | 308,27 | 9.99674 | |
| 2.59546v | +85.70 | 2.48893 | |

1894 Maerz 28

* wie März 27

1894.0 $11^h\ 25^m\ 32^s,110$ $+10°\ 12'\ 26'',85$ A.G.L.

$+\ 1,868$ $-\ 8.96$

$11^h\ 25^m\ 33^s.978$ $+10°\ 12'\ 17'',89$

$-\ 10\ 20,396$ $-\ 0\ 42,18$

Eukrate $11^h\ 15^m\ 13^s,582$ $+10°\ 11'\ 35.71$ 87 Vgl

1894 März 28 $9^h\ 27^m\ 59^s$ m.Z.

C.w.P. $-0^s,07$ $+2,''96$

Corr.d.Eph. $+0^s,450$ $+1,''63$

Rechn $11^h\ 15^m\ 13^s,065$ $+10°\ 11'\ 37,''04$ v

(247)

1)oben

| | | | |
|---|---|---|---|
| 60 | | 62,5 | * |
| 38 | | 44,5 | |
| 98 | 22 | 107 | 18 |
| 1.99123 | 1.34242 | 2.02938 | 1.25527 |
| 9.84731 | 9.19850 | 9.88544 | 9.11133 |
| 9.85164 | | 9.80638 | |
| 9.99451v | 360.74 | 9.99634 | |
| 2.55719v | 326,41 | 2.51376 | |
| | −34,33 | | |

2)oben

| | | | |
|---|---|---|---|
| 61 | | 63,5 | |
| 40 | | 46,0 | |
| 101 | 21 | 109.5 | 17,5 |
| 2.00432 | 1.32222 | 2.03941 | 1.24304 |
| 9.86040 | 9.17830 | 9.89547 | 9.09910 |
| 9.83799 | | 9.79106 | |
| 9.99500v | 349.97 | 9.99655 | |
| 2.54403v | 315,25 | 2.49865 | |
| | −34,72 | | |

(247)

| | * | | Δα | Δδ |
|---|---|---|---|---|
| $8^h\ 53^m\ 18,00^s$ | $9^h$ | $3\ 35,75^s$ | $-10^m\ 17,75^s$ | |
| 8 53 18,00 | 9 | 3 35,75 | 17,75 | |
| 9 8 35,50 | | 18 54,25 | 18,75 | |
| 9 8 36,00 | | 18 54,50 | 18,50 | |
| 9 30 58,75 | | 40 18,50 | 19,75 | |
| 9 30 59.00 | | 40 18,25 | 19,25 | |
| 9 46 4,00 | | 56 24,00 | 20,00 | |
| 9 46 4,00 | | 56 24,25 | 20,25 | |
| 10 1 1.25 | | 11 21,25 | 20,00 | − 34,3 |
| 10 1 0,50 | | 11 21,50 | 21,00 | 34,7 |
| 10 18 0.25 | | 28 21,75 | 21,50 | 40,2 |
| 10 18 0,00 | | 28 21,75 | 21,75 | 36,3 |
| 10 31 50,50 | | 42 12,25 | 21,75 | 43,3 |
| 10 31 49.75 | | 42 12,50 | 22,75 | 48,3 |
| 10 47 30,50 | | 57 53,25 | 22,75 | 47,5 |
| 10 47 30,25 | | 57 53,00 | −10 22,75 | 52,55 |
| | | | $-10^m\ 20^s,391$ | $-42''$ |
| | | | $-0,005$ | |

$9^h\ 52^m\ 9^s,77$

$+\ 0\ 50,83$ Sternzeit

$9^h\ 53^m\ 0^s,60$

$0\ 23\ 28,75$

$9^h\ 29^m\ 31^s,85$

$-\ 1\ 33,30$

$9^h\ 27^m\ 58^s,55$ m.Z.

3)oben

| | | | |
|---|---|---|---|
| 62,5 | | 65 | |
| 42 | | 48,5 | |
| 104,5 | 20,5 | 113,5 | 16,5 |
| 2.01912 | 1.31175 | 2.05500 | 1.21748 |
| 9.87520 | 9.16783 | 9.91106 | 9.07354 |
| 9.82031 | | 9.76322 | |
| 9.99525 | | 9.99693 | |
| 2.52660 | | 2.47119 | |
| | 336,20 | | |
| | 295,93 | | |
| | −40,27 | | |

4)unten

| | | | |
|---|---|---|---|
| 62 | | 58 | |
| 44 | | 38,5 | |
| 106 | 18 | 96,5 | 19,5 |
| 2.02531 | 1.25527 | 1.98453 | 1.29003 |
| 9.88139 | 9.11135 | 9.84059 | 9.14609 |
| 9.81207 | | 9.85803 | |
| 9.99634 | | 9.99570 | |
| 2.51945 | | 2.56477 | |
| | 330.72 | | |
| | 367.09 | | |
| | −36,37 | | |

5)unten

| | | | |
|---|---|---|---|
| 61,5 | | 56,5 | |
| 43 | | 36 | |
| 104,5 | 18,5 | 92,5 | 20,5 |
| 2.01912 | 1.26717 | 1.96614 | 1.31175 |
| 9.87520 | 9.12325 | 9.82220 | 9.16781 |
| 9.82031 | 336,88 | 9.87372 | |
| 9.99613 | 380.20 | 9.99524v | |
| 2.52748 | −43,32 | 2.58000v | |

6)unten

| | | | |
|---|---|---|---|
| 63,5 | | 57,5 | |
| 44 | | 37,5 | |
| 107,5 | 19,5 | 95 | 20 |
| 2.03141 | 1.29003 | 1.97772 | 1.30103 |
| 9.88749 | 9.14611 | 9.83378 | 9.15709 |
| 9.80339 | 323,69 | 9.86413 | |
| 9.99570 | 372,08 | 9.99547 | |
| 2.51013 | −48,39 | 2.57064 | |

7)unten

| | | | |
|---|---|---|---|
| 62 | | 56,5 | |
| 43,5 | | 36 | |
| 105,5 | 18,5 | | |
| 2.02325 | 1.26717 | | |
| 9.87933 | 9.12325 | | |
| 9.81487 | 332,69 | | |
| 9.99613 | 380,20 | | |
| 2.52204 | −47,51 | | |

wie 5)

8)oben

| | | | |
|---|---|---|---|
| 61 | | 65,5 | |
| 40,5 | | 48 | |
| 101,5 | 20,5 | 113,5 | 17,5 |
| 2.00647 | 1.31175 | 2.05500 | 1.24304 |
| 9.86255 | 9.16783 | 9.91106 | 9.09910 |
| 9.83558 | 348,22v | 9.76322 | |
| 9.99524 | 295,67 | 9.99655 | |
| 2.54186 | −52,55v | 2.47081 | |

März 31

1)oben

| | | | |
|---|---|---|---|
| 66,5 | | 63 | |
| 48 | | 44 | |
| 114,5 | 18,5 | 107 | 19 |
| 2.05881 | 1.26717 | 2.02938 | 1.27875 |
| 9.91506 | 9.12342 | 9.88564 | 9.13501 |
| 9.75509v | " | 9.80608v | |
| 9.99613 | 289.91 | 9.99592 | |
| 2.46226v | 325,87 | 2.51304v | |
| | +35,96 | | |

2)oben

| | | | |
|---|---|---|---|
| 67,5 | | 64 | |
| 50 | | 46,5 | |
| 117,5 | 17,5 | 110,5 | 17,5 |
| 2.07004 | 1.24304 | 2.04336 | 1.24304 |
| 9.92629 | 9.09929 | 9.89962 | 9.09930 |
| 9.72957 | | 9.78418 | |
| 9.99655 | 273,63 | 9.99654v | |
| 2.43716 | 310,29 | 2.49176v | |
| | +36,66 | | |

(247)

3)oben

| | | | * |
|---|---|---|---|
| 68,5 | | 64,5 | |
| 51,5 | | 47,0 | |
| 120 | 17 | 111,5 | 17,5 |
| 2.07918 | 1.23045 | 2.04727 | 1.24304 |
| 9.93543 | 9.08670 | 9.90353 | 9.09930 |
| 9.70514v | | 9.77737 | |
| 9.99674 | 258,78 | 9.99654v | |
| 2.41292v | 305,46 | 2.48495v | |
| | +46,68 | | |

| 61 | 4) unten | 63,5 | |
|---|---|---|---|
| 40 | | 45,5 | |
| 101 | 21 | 109 | 18 |
| .00432 | 1.32222 | 2.03743 | 1.25527 |
| .86057 | 9.17847 | 9.89369 | 9.11153 |
| 9.83780 | | 9.79392 | |
| 9.99500 | 349.82 | 9.99637 | |
| 2.54384 | 317.18 | 2.50130 | |
| | + 32,64 | | |

| 60 | 5) unten | 62 | |
|---|---|---|---|
| 39 | | 44 | |
| 99 | 21 | 106 | 18 |
| 1.99564 | 1.32222 | 2.02531 | 1.25527 |
| 9.85189 | 9.17847 | 9.88157 | 9.11153 |
| 9.84705 | | 9.81181v | |
| 9.99500 | 357.35 | 9.99634 | |
| 2.55309 | 330.52 | 2.51919v | |
| | + 26,83 | | |

| 59 | 6) unten | 61,5 | |
|---|---|---|---|
| 38,5 | | 43,0 | |
| 97,5 | 20,5 | 104,5 | 18,5 |
| 1.98900 | 1.31175 | 2.01912 | 1.26717 |
| 9.84525 | 9.16800 | 9.87538 | 9.12343 |
| 9.85364 | | 9.82008 | |
| 9.99524 | 363,01 | 9.99613 | |
| 2.55992 | 336,71 | 2.52725 | |
| | + 26,30 | | |

1875.0 8.7 $11^h\ 21^m\ 17^s.99$ $+10°\ 9'\ 57''.8$ A.G. Ep. 1868,26
8.7 18,01 57.0 1869.24

1875,0 8.m7 $11^h\ 21^m\ 18^s,00$ $+10°\ 9'\ 57'',40$ A.G. Leipzig
+ 59.128 − 6 15,73
94,0 $11^h\ 22^m\ 17^s,128$ $+10°\ 3'\ 41,67$
+ 1,858 − 8,67
$11^h\ 22^m\ 18^s.986$ $+10°\ 3'\ 33'',00$
−10 2.463 +0' 34'',18
Zukrate $11^h\ 12^m\ 16^s,523$ $+10°\ 4'\ 7'',18$ 6 Vgl

394 Maerz 31 $11^h\ 13^m\ 3^s$ m.Z.

C. w. Par. $+0^s,03$ $+2'',91$

Corr. d. Eph. $+0^s,154$ $+0'',09$

Rechn. $11^h\ 12^m\ 16^s,400$ $+10°\ 4'\ 10'',00$ ✓

1884.5
α 170° 26.8
δ +10° 6' 82
cos α 9.99394n
n 1.30219
sin α 9.21995n
tg δ 9.25133
9.77348
+ 0,5936
m 46,0864
46,6800

6 Vgl

| | März 31 | (247) | * | Δα | Δδ |
|---|---|---|---|---|---|
| g | 290 55 | $10^h\ 45^m\ 18^s,75$ | $10^h\ 55^m\ 19^s.00$ | $-10^m\ 0^s,25$ | |
| α | 170 34 | 10 45 18,50 | 10 55 18,50 | −10 0,00 | |
| H | 257 49 | 11 12 7.25 | 11 22 8.00 | −10 0,75 | |
| g+α | 101 29 | 11 12 7.00 | 11 22 8.25 | −10 1,25 | |
| cos | 9.29900n | 11 29 52,75 | 11 39 54,75 | −10 2,00 | |
| g | 1.0074 | 11 29 52,75 | 11 39 54,50 | −10 1,75 | |
| sin | 9.9912 | 11 51 6,50 | 12 1 8,75 | −10 2,25 | + 35,96 |
| tgδ | 9.2491 | 11 51 6,00 | 12 1 8,75 | −10 2,75 | 36,66 |
| | 0.2477 | 12 39 20,00 | 12 49 24,00 | −10 4,00 | 46,68 |
| | + 1.77 | 12 39 19.50 | 12 49 24,00 | −10 4,50 | 32,64 |
| f | + 8,33 | 12 58 11.50 | 13 8 16,25 | −10 4,75 | 26,83 |
| | +17.77 | 12 58 11.25 | 13 8 16,50 | −10 5,25 | 26,30 |
| Δα | +27.87 | $11^h\ 49^m\ 19^s.33$ | | $-10^m\ 2^s,458$ | + 34'',18 |
| H+α | 68 23 | + 0 53,12 | | − 0,005 | |
| sin δ | 9.2423 | $11^h\ 50^m\ 12,45$ Sternz. | | | |
| cos | 9.5663 | 0 35 18,42 | | | |
| h | 1.2747 | 11 14 54,03 | | | |
| sin | 9.9683 | − 1 50,57 | | | |
| sec δ | 0.0067 | $11^h\ 13^m\ 3^s,46$ m.Z. | | | |
| | 1.2497 | | | | |
| fi | 0.9021n | 2,02 | | | |
| cos δ | 9.9933 | − 7.86 | | | |
| fi cos δ | 0.8954n | − 9,88 | | | |
| fg cos | 0.3064n | + 1.21 | | | |
| fhen() sin δ | 0.0833 | − 8,67 = Δδ | | | |

1894 April 2

| | Sj. | A.N. | Leipzig | * | (247) | Δα | Δδ |
|---|---|---|---|---|---|---|---|
| | 1879.5 | 1882,0 | 1884,5 | 9 22 7.00 | 9 31 50,00 | + 9m 43s,00 | |
| α | 165 0.54 | 165 2.54 | 165° 4.51 | 9 22 7.00 | 9 31 50,25 | 43,25 | |
| δ | +10° 2',32 | +10° 1',50 | +10° 0,70 | 9 37 32,00 | 9 47 14,75 | 42.75 | |
| cos δ | 9.98496n | 9.98503n | 9.98509n | 9 37 31,75 | 9 47 15,25 | 43,50 | |
| n | 1.30220 | 1.30219 | 1.30219 | 9 53 25,50 | 10 3 8,00 | 42,50 | |
| sin δ | 9.41274 | 9.41180 | 9.41086v | 9 53 25,50 | 10 3 8,00 | 42,50 | |
| tgδ | 9.24803 | 9.24742v | 9.24684 | 10 22 33,50 | 16 32 14,75 | 41,25 | + 99.3 |
| | 9.96297 | 9.96141v | 9.95989v | 10 22 33,50 | 16 32 14,75 | 41,25 | 93.65 |
| | + 0.9183 | + 0.9150 | + 0.9118 | 10 37 2,00 | 10 46 43,00 | 41,00 | 93.14 |
| m | 46,0850 | 46,0857 | 46,0864 | 10 37 2,00 | 10 46 42,75 | 40.75 | 83.48 |
| | 47,0033 | 47,0007 | 46.9982 | 10 53 8,50 | 11 2 48,50 | 40,00 | 77.14 |
| | | 28200 42 | | 10 53 8,50 | 11 2 48,50 | + 9m 40,00 | 78.22 |
| | | 470007 | | | | | |
| | | 752012 | | | | | |

(10) 1865,0 $10^h\ 59^m\ 16^s,60$ $+10°\ 7'\ 0'',8$ Sj. 4038
1870,0 10 59 32,56 +10 5 21,8 A.N. 1925 2 Beob. Tietjen
1870-94 + 1 15.201 − 7 44.98 } um +1' corrigirt
65-94 + 1m 30,873 − 9 21.77

1875,0 $10^h\ 59^m\ 48^s,25$ $+10°\ 3'\ 45''.3$ A.G. Ep 1884.25
.32 46.6 84.18
.33 46.3 68.15
.46 47.0 68.21

1875,0 $10^h\ 59^m\ 48^s,340$ $+10°\ 3'\ 46'',30$ Leipzig 4 Beob.
875-94 + 59.531 − 6 8.16

$10^h\ 17^m\ 19^s.87$ $+9^m\ 41^s,812$ $+87,''5$
+ 0 54,13 +0.003
$10^h\ 18^m\ 14^s.00$ Shp
0 43 11.52
9 35 2,48
− 1 34,21
$9^h\ 33^m\ 28^s,27$ m.Z.

894.0 $11^h\ 0^m$ (47,473 $+9°\ 57'\ 39'',03$ Sj. 4038) 1 B.)
11 0 47.761 57 36,82 A.N 1925 2 B.
11 0 47.871 57 38,14 Leipzig 4 B.

1894.0 $11^h\ 0^m\ 47^s.834$ $+9°\ 57'\ 37'',70$
+ 1.803 − 7.39
$11^h\ 0^m\ 49^s.637$ $+9°\ 57'\ 30'',31$
$+9^m\ 41^s.815$ $+1'\ 27''.50$
(247) $11^h\ 10^m\ 31,452$ $+9°\ 58'\ 57''.81$ 6 Vgl.

1894 April 2 $9^h\ 33^m\ 28^s$ $11^m,3$

| | | | |
|---|---|---|---|
| fhcos α | 1.28716n | 1.28722n | 1.28728n |
| | −19.3714 | −19.3741 | −19.3770 |
| | | 77 4964 | |
| | | 387482 | |
| | | 464.9784 | |

$\frac{1}{3}$ (A.N. 1925 + 2 Leipzig A.G.)

N.B. Die Declination der Sterne in A.N. 1925 ist um +1' (Textfehler) zu corrigiren
Bd 81, Seite 71
also δ +10° 5' 21,5 zu setzen

Corr. w. Par. $-0^s,04$ $+2'',89$
Corr. d. Eph. $+0^s,253$ $+1'',68$

Rechn. $11^h\ 10^m\ 31^s,157$ $+9°\ 58'\ 59''.02$

April 2

| | | | | |
|---|---|---|---|---|
| | + 54 | 1) oben | (247) 66 | |
| | 32 | | 46,5 | |
| | 86 | 22 | 112,5 | 19,5 |
| | 1.93450 | 1.34242 | 2.05115 | 1.29003 |
| | 9.79090 | 9.19882 | 9.90751 | 9.14639 |
| | 9.89557 | | 9.77007 | |
| | 9.99451 | 399.14 | 9.99570 | |
| | 2.60112 | 299.79 | 2.47681 | |
| | | +99.35 | | |

| | | | | |
|---|---|---|---|---|
| | 56 | 2) oben | 66,5 | |
| | 34,5 | | 47,5 | |
| | 90,5 | 21,5 | 114 | 19 |
| | 1.95665 | 1.33244 | 2.05690 | 1.27875 |
| | 9.81305 | 9.18884 | 9.91326 | 9.13501 |
| | 9.88068 | | 9.75881 | |
| | 9.99476 | 385,91 | 9.99591 v | |
| | 2.58648 | 292.26 | 2.46576 v | |
| | | +93.65 | | |

| | | | | |
|---|---|---|---|---|
| | 65 | 3) unten | 55 | |
| | 47 | | 32 | |
| | 112 | 18 | 87 | 23 |
| | 2.04922 | 1.25527 | 1.93952 | 1.36173 |
| | 9.90562 | 9.11167 | 9.79588 | 9.21809 |
| | 9.77358 | | 9.89245 | |
| | 9.99633 | 302,66 | 9.99399 | |
| | 2.48095 | 395.80 | 2.59148 | |
| | | +93,14 | | |

| | | | | |
|---|---|---|---|---|
| | 65 | 4) unten | 56,5 | |
| | 48 | | 35,5 | |
| | 113 | 17 | 92 | 21 |
| | 2.05308 | 1.23045 | 1.96379 | 1.32222 |
| | 9.90948 | 9.08685 | 9.82015 | 9.17858 |
| | 9.76631 | | 9.87533 | |
| | 9.99674 | 297.91 | 9.99500 | |
| | 2.47409 | 381.39 | 2.58137 | |
| | | +83,48 | | |

| | | | | |
|---|---|---|---|---|
| | 64 | 5) unten | 57 | |
| | 47 | | 33,5 | |
| | 111 | 17 | 90,5 | 23,5 |
| | 2.04532 | 1.23045 | 1.95665 | 1.37107 |
| | 9.90172 | 9.08685 | 9.81301 | 9.22743 |
| | 9.78057 | | 9.88070 v | |
| | 9.99674 | 307.86 | 9.99372 | |
| | 2.48835 | 385,00 | 2.58546 v | |
| | | +77,14 | | |

| | | | | |
|---|---|---|---|---|
| | 57 | 6) oben | 65 | |
| | 35 | | 47 | |
| | 92 | 22 | 112 | 18 |
| | 1.96379 | 1.34242 | 2.04922 | 1.25527 |
| | 9.82019 | 9.19882 | 9.90558 | 9.11163 |
| | 9.87529 v | | 9.77365 | |
| | 9.99451 | 380.93 | 9.99633. | |
| | 2.58084 | 302.71 | 2.48102. | |
| | | +78,22 | | |

## 1894 April 5

Leipzig

| | | | | | |
|---|---|---|---|---|---|
| * 1875,0 | 9.0 | $11^h 9^m 47^s,21$ | + 9° 56′ | 2″,8 | A.G. 1869.24 |
| | 9.1 | .32 | | 3.8 | 68.26 |
| | 8.8 | .36 | | 1.3 | 84.25 |
| | 9.0 | .42 | | 3.2 | 84.18 |

1875.0 $11^h 9^m 47^s,327$ + 9° 56′ 2″,77 A.G. L.
+ 59.329 − 6 12,09

1894,0 $11^h 10^m 46^s,656$ + 9° 49′ 50″,68 A.G. Leipzig
+ 1,817 − 7.85
$11^h 10^m 48^s,473$ + 9° 49′ 42″,83
− 2 50,345 + 0 28,56

Eukrate $11^h 7^m 58^s,128$ + 9° 50′ 11″,39

1894 April 5 $9^h 12^m 35^s$ m. Z.

Corr. w. Par. − 0ˢ,05 + 2″,87

Corr der Eph. +0ˢ,195 + 1″,86

1884.5
α 167° 34′,25
δ + 9° 52′,95
cos δ 9.99870 n
n 1.30219
sin δ 9.33296
½δ 9.24108
9.87618
+0.7510
m 46,0864
46,8383

| | | |
|---|---|---|
| | * | Δα, Δδ |
| 9h 55 34,75 | 9 58 24,50 | − 2m 49,75 |
| 9 55 34,00 | 9 58 24,25 | 2 50,25 |
| 10 4 12,00 | 10 7 2,25 | 2 50,25 |
| 10 4 12,25 | 10 7 2,50 | 2 50,25 |
| 10 13 8,00 | 10 15 58,25 | 2 50,25 + 32″,26 |
| 10 13 8,00 | 10 15 58,00 | 2 50,00 26,28 |
| 10 19 52,50 | 10 22 43,00 | 2 50,50 33,10 |
| 10 19 51,50 | 10 22 43,00 | 2 51,50 22,59 |

$10^h 8^m 11^s,62$ − 2m 50ˢ,344 + 28″,5
+0 55,43 − 0,001
$10^h 9^m 7^s,05$ Stanzt
0 55 1.17
$9^h 14^m 5,88$
− 1 30,78
$9^h 12^m 35^s,10$ m. Z.

cos α 1.29189 n
− 19″,58364

4 Vgl.

Rechn. $11^h 7^m 57^s,886$ + 9° 50′ 12″,40

April 5

| | | | | |
|---|---|---|---|---|
| | 63,5 | 1) oben | 60.0 | |
| | 44 | | 39,5 | |
| | 107,5 | 19,5 | 99.5 | 20,5 |
| | 2.03141 | 1.29003 | 1.99782 | 1.31175 |
| | 9.88797 | 9.14659 | 9.85439 | 9.16832 |
| | 9.80269 | 323″,16 | 9.84447 | |
| | 9.99569 | 355,42 | 9.99523 | |
| | 2.50942 | +32″,26 | 2.55074 | |

| | | | | |
|---|---|---|---|---|
| | 64 | 2) unten | 66,5 | |
| | 47,5 | | 50,0 | |
| | 111,5 | 16,5 | 116,5 | 16,5 |
| | 2.04727 | 1.21748 | 2.06633 | 1.21748 |
| | 9.90383 | 9.07404 | 9.92290 | 9.07405 |
| | 9.77683 | 305,34 | 9.73774 | |
| | 9.99692 | 279.06 | 9.99692 | |
| | 2.48479 | +26,28 | 2.44570 | |

| | | | | |
|---|---|---|---|---|
| | 64 | 3) unten | 66,5 | |
| | 46 | | 50 | |
| | 110 | 18 | 116,5 | 16,5 |
| | 2.04139 | 1.25527 | 2.06633 | 1.21748 |
| | 9.89795 | 9.11183 | 9.92290 | 9.07405 |
| | 9.78701 | 312,16 | 9.73774 | |
| | 9.99633 | 279.06 | 9.99692 | |
| | 2.49438 | + 33″,10 | 2.44570 | |

| | | | | |
|---|---|---|---|---|
| | 65 | 4) oben | 62 | |
| | 45 | | 43 | |
| | 110 | 20 | 105 | 19 |
| | 2.04139 | 1.30103 | 2.02119 | 1.27875 |
| | 9.89795 | 9.15759 | 9.87776 | 9.13532 |
| | 9.78701 | 311,54 | 9.81697 | |
| | 9.99546 | 334,13 | 9.99591 | |
| | 2,49351 | +22″,59 | 2.52392 | |

# Erscheinung XI

1897 December 27

A.G.C. Helsingfors-Gotha

| | | | | |
|---|---|---|---|---|
| 1875,0 (9.m3) | 8h 20m 7,s64 | +62° 23′ 10,″4 | Krüger 5560 | 2 Beob. |
| | + 1 53,432 | − 4 14,74 | | |
| 1897.0 | 8h 22m 1,s072 | +62° 18′ 55,″66 | Krüger 5560 | |
| | + 9.499 | − 21.31 | | |
| | 8h 22m 10,s571 | +62° 18′ 34,″35 | | |
| | − 7 48,824 | + 0 39.44 | | |
| (17) Eukrate | 8h 14m 21,s747 | +62° 19′ 13.″79 | 10 Vgl. | |

1897 December 27 $9^h\ 27^m\ 46^s$ m. Z.

Grösse 10,m4 nahe Zenit bei guter Luft

Corr. w. Par. $-0^s,515$ $+0'',79$

Corr. der rückwärts verlängerten Eph.: $-1^s.27$ $+8,''8$

Planet nach unmittelbarer Schätzung: 10,m4

" ganz wesentlich schwächer wie Vergleichstern Krüger 5560

" 1,m0 schwächer wie B.D. +62° 994 $9^m.4$ $8^h\ 10^m\ 29^s$ +62° 33′,5

(Rechn: $8^h\ 14^m\ 22^s.503$ +62° 19′ 5.″81)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| g | 351 | 36 | Eukrate | | * | Δα | Δδ |
| α | 125 | 30 | $2^h$ | 55 | 27.25 | $3^s$ | $3^m$ | 40,s75 | − 7m | 43,s50 | |
| H | 354 | 5 | 2 | 55 | 57.00 | 3 | 3 | 41,00 | − 7 | 44,00 | |
| gtα | 117 | 6 | 3 | 9 | 43,00 | 3 | 17 | 28,50 | − 7 | 45,50 | |
| cos | 9.6585n | 3 | 9 | 43,00 | 3 | 17 | 29.00 | − 7 | 46,00 | | |
| g | 1.4192 | 3 | 27 | 23,00 | 3 | 35 | 10.25 | − 7 | 47,25 | | |
| sin | 9.9495 | 3 | 27 | 24,00 | 3 | 35 | 9.50 | − 7 | 45,50 | | |
| tgδ | 0.2801 | 3 | 40 | 41,50 | 3 | 48 | 29.25 | − 7 | 47,75 | | |
| | 1.6488 | 3 | 40 | 42,00 | 3 | 48 | 29,50 | − 7 | 47,50 | | |
| | + 44,54 | 3 | 54 | 29.00 | 4 | 2 | 16,75 | − 7 | 47,75 | | |
| | +38.23 | 3 | 54 | 28,75 | 4 | 2 | 17.25 | − 7 | 48,50 | | |
| f | + 59.72 | 4 | 9 | 10.75 | 4 | 16 | 59.75 | − 7 | 49,00 | + | 30,″67 |
| Δα | +142.49 | 4 | 9 | 11.00 | 4 | 17 | 0,50 | − 7 | 49,50 | | 25.93 |
| Htα | 119 | 35 | 4 | 22 | 47.50 | 4 | 30 | 37.25 | − 7 | 49,75 | 35.19 |
| sinδ | 9.9472 | 4 | 22 | 47.00 | 4 | 30 | 36,75 | − 7 | 49,75 | 35.13 | |
| cos | 9.6935 n | 4 | 37 | 16.00 | 4 | 45 | 7.25 | − 7 | 51,25 | 41.03 | |
| h | 1.3102 | 4 | 37 | 16.00 | 4 | 45 | 7.25 | − 7 | 51,25 | 39.79 | |
| sin | 9.9393 | 4 | 55 | 40.75 | 5 | 3 | 33,50 | − 7 | 52,75 | 41.89 | |
| secδ | 0.3329 | 4 | 55 | 40,50 | 5 | 3 | 33,75 | − 7 | 53,25 | 45.17 | |
| | 1.5824 | 5 | 9 | 14.00 | 5 | 17 | 7.50 | − 7 | 53,50 | 47.68 | |
| fi | 9.9601 n | 5 | 9 | 14.25 | 5 | 17 | 7.75 | − 7 | 53,50 | 51.87 | |
| cosδ | 9.6671 | | | | | | | | | | |
| sinα | 9.6272 n | $4^h$ | $2^m$ | $14^s,31$ | | | | $-7^m\ 48^s,838$ | | + 39,″44 | |
| fges | 1.0777 n | − 8 | 4,64 | | | | | + 0,014 | | | |
| fhr | 0.9509 n | $3^h$ | $54^m$ | $9^s.67$ | + zt | | | | | | |
| | − 0,″42 | 18 | 24 | 50.75 | | | | | | | |
| | − 11.96 | 9 | 29 | 18.92 | | | | | | | |
| | − 8,93 | − 1 | 33,27 | | | | | | | | |
| Δδ | −21,″31 | $9^h$ | $27^m$ | $45^s.65$ m. Z. | | | | | | | |

| | | | |
|---|---|---|---|
| 123,5 | 1)/unten | 128,5 | |
| 74 | | 88 | |
| 197,5 | 49,5 | 216,5 | 40,5 |
| 2.29557 | 1.69461 | 2.33546 | 1.60746 |
| 1.82556 n | 9.22460 n | 9.86562 | 9.13762 |
| 9.87103 | 376.59 | 9.83206 | |
| 9.99380 | 345.92 | 9.99587 | |
| 2.57587 | +30.67 | 2.53897 | |
| 120 | 2)/unten | 125 | |
| 72 | | 84 | |
| 192 | 48 | 209 | 41 |
| 2.28330 | 1.68124 | 2.32015 | 1.61278 |
| 1.81329 n | 9.21123 n | 9.85031 | 9.14294 |
| 9.88050 | 385.23 | 9.84866 | |
| 9.99418 | 359.30 | 9.99576 | |
| 2.58572 | +25.93 | 2.55546 | |
| 130 | 5)/oben | 118,5 | |
| 85,5 | | 71,5 | |
| 215,5 | 44,5 | 190 | 47 |
| 2.33345 | 1.64836 | 2.27875 | 1.67210 |
| 9.86344 n | 9.17835 n | 9.80891 | 9.20226 |
| 9.83456 | 347.22 | 9.88366 | |
| 9.99500 | 388.25 | 9.99442 | |
| 2.54060 | +41.032 | 2.58912 | |
| 116 | 8)/unten | 126,5 | |
| 70 | | 88,5 | |
| 186 | 46 | 215 | 38 |
| 2.26951 | 1.66276 | 2.33244 | 1.57978 |
| 9.79950 n | 9.19275 n | 9.86260 | 9.10994 |
| 9.89009 | 394.26 | 9.83553 | |
| 9.99466 | 349.09 | 9.99637 | |
| 2.59579 | +45.17 | 2.54294 | |

| | | | | |
|---|---|---|---|---|
| 124 | 3)/oben | 111,5 | | |
| 74 | | 61 | | |
| 198 | 50 | 172,5 | 50,5 | |
| 2.29667 | 1.69897 | 2.23679 | 1.70329 | |
| 9.82666 n | 9.22896 n | 9.76695 | 9.23345 | |
| 9.87013 | 375.70 | 9.90915 | | |
| 9.99367 n | 410.89 | 9.99354 | | |
| 2.57484 n | +35.19 | 2.61373 | | |
| 114,5 | 6)/unten | 123,5 | | |
| 61 | | 81 | | |
| 175,5 | 53,5 | 204,5 | 42,5 | |
| 2.24428 | 1.72835 | 2.31069 | 1.62839 | |
| 9.77427 n | 9.25834 n | 9.84085 | 9.15855 | |
| 9.90524 | 406.47 | 9.85779 | | |
| 9.99275 | 366.67 n | 9.99545 | | |
| 2.60903 | +39.79 n | 2.56428 | | |
| 128,5 | 9)/oben | 115 | | |
| 83 | | 64,5 | | |
| 211,5 | 45,5 | 179,5 | 50,5 | |
| 2.32531 | 1.65801 | 2.25406 | 1.70329 | |
| 9.85530 n | 9.18800 n | 9.78422 | 9.23345 | |
| 9.84351 | 354,27 | 9.89960 | | |
| 9.99478 | 401.95 | 9.99354 | | |
| 2.54933 | +47.68 | 2.60418 | | |

| | | | | |
|---|---|---|---|---|
| 125 | 4)/oben | 115,5 | | |
| 80 | | 65 | | |
| 205 | 45 | 180,5 | 50,5 | |
| 2.31175 | 1.65321 | 2.25648 | 1.70329 | |
| 9.84174 n | 9.18320 n | 9.78664 | 9.23345 | |
| 9.85695 n | 365.50 | 9.89816 | | |
| 9.99490 | 400.63 | 9.99354 | | |
| 2.56289 n | +35.13 | 2.60274 | | |
| 117 | 7)/unten | 125,5 | | |
| 64 | | 84,5 | | |
| 181 | 53 | 210 | 41 | |
| 2.25768 | 1.72428 | 2.32222 | 1.61278 | |
| 9.78767 n | 9.25427 n | 9.85238 | 9.14294 | |
| 9.89754 n | 399.45 | 9.84655 | | |
| 9.99288 n | 357.56 | 9.99576 | | |
| 2.60147 | +41.89 | 2.55335 | | |
| 131 | 10)/oben | 117 | | |
| 88,5 | | 70,5 | | |
| 219,5 | 42,5 | 187,5 | 46,5 | |
| 2.34143 | 1.62839 | 2.27300 | 1.66745 | |
| 9.87142 n | 9.15838 n | 9.80316 | 9.19761 | |
| 9.82508 | 340.07 | 9.88764 | | |
| 9.99545 | 391.94 | 9.99454 | | |
| 2.53157 | +51,87 | 2.59322 | | |

1898 Januar 17

| | | | | | | |
|---|---|---|---|---|---|---|
| 89 1875.0 | $7^h\ 30^m$ | $22^s,91$ | $+61°\ 52'$ | $15''.4$ | Krüger 5168 | 4 Beob. |
| | + 2 | 3,613 | − 2 | 59,12 | | |
| 1898,0 | $7^h\ 32^m$ | $26^s,523$ | $+61°\ 49'$ | $16''.28$ | Krueger 5168 | |
| | + | 5,022 | − | 0,31 | | |
| | $7^h\ 32^m$ | $31^s,545$ | $+61°\ 49'$ | $15''.97$ | | |
| | + 2 | 2,535 | − 1 | 23,30 | | |
| (247) Eukrate | $7^h\ 34^m$ | $34^s,080$ | $+61°\ 47'$ | $52''.67$ | 10 Vgl. | |

1898 Januar 17 $6^h\ 59^m\ 53^s$ m. Z. $10,5^m$ Bild scharf

C. w. Par. $-0^s,513$ $+1'',16$

Corr. d. Eph. im Jahrb. : $-0^s,709$ $+5'',55$

Rechn. $7^h\ 34^m\ 34^s,274$ $+61°\ 47'\ 48''.28$

β. ·α } In nebenstehender Gruppe folgt α 1ˢ auf den Planeten · Eukrate ist $0^m,1$ schwächer
247 } wie α und Eukrate $0^m,1$ heller wie β.

Nach unmittelbarer Schätzung fand ich Eukrate nur $10.^m4$

Durch Vergl. mit $9.^m5$ $7^h\ 34^m\ 20^s$ $+61°\ 51'.1$ BD $+61°\ 997$ folgt (247) $10.^m5$ (nicht heller)

| Januar 17 | * | (247) | Δα | Δδ |
|---|---|---|---|---|
| g 332 19 | $2^h\ 2^m\ 59^s,00$ | 2 5 4,25 | + $2^m\ 5^s,25$ | |
| α 113 7 | 2 2 59.25 | 2 5 5,00 | 2 5,75 | |
| H 334 15 | 2 11 54,75 | 2 14 0,00 | 2 5,25 | |
| g+α 85 26 | 2 11 55,00 | 2 14 0,50 | 2 5,50 | |
| cos 8.90 10 | 2 18 14,50 | 2 20 20,00 | 2 5,50 | |
| g 0.9250 | 2 18 15,75 | 2 20 20,25 | 2 4,50 | |
| sin 9.9986 | 2 37 57.50 | 2 40 1,50 | 2 4,00 | |
| gδ 0.2711 | 2 37 57,50 | 2 40 0.75 | 2 3,25 | |
| 1.1947 | 2 44 37.75 | 2 46 40,50 | 2 2,75 | |
| + 15,66 | 2 44 37.75 | 2 46 40,50 | 2 2,75 | |
| + 42,49v | 2 52 35,00 | 2 54 37.00 | 2 2,00 | − 71.18 |
| | 2 52 36,00 | 2 54 37.50 | 2 1,50 | 75.71 |
| f + 17,17 | 2 59 52,75 | 3 1 53,75 | 2 1,00 | 77.98 |
| H+α 87 22 | 2 59 52,00 | 3 1 54,00 | 2 2,00 | 76.84 |
| sinδ 9.9452 | 3 10 23,50 | 3 12 24,25 | 2 0,75 | 82.61 |
| cos 8.6622 | 3 10 24,25 | 3 12 25,00 | 2 0,75 | 83.74 |
| h 1.3030 | 3 19 5,00 | 3 21 4,75 | 1 59,75 | 87.50 |
| sin 9.9995 | 3 19 5,00 | 3 21 4,75 | 1 59,75 | 89.94 |
| sinδ 0.3258v | 3 25 24,00 | 3 27 23,50 | 1 59,50 | 94.02 |
| 1.6283v | 3 25 24,00 | 3 27 23,25 | 1 59,25 | 93.45 |
| gi 0.5782n | | $2^h\ 48^m\ 21^s,05$ | + $2^m\ 2^s,537$ | − 83'',30 |
| cos 9.6741v | | + 0 19,63 | − 0.002 | |
| fiδ 0.2523vn | | $2^h\ 48^m\ 40^s,68$ | | |
| gen 9.8260 + 0'',67 | | 19 47 38,44 | | |
| 9.9104 + 0,81 | | $7^h\ 1^m\ 2^s,24$ | | |
| + 1,48 | | − 1 8.97 | | |
| Δδ { − 1,79 | | $6^h\ 59^m\ 53^s$ m. Z. | | |

| | | | |
|---|---|---|---|
| 126 | 1)oben | 108,5 | |
| 87,5 | | 56 | |
| 213,5 | 38,5 | 164,5 | 52,5 |
| 2.32940 | 1.58546 | 2.21617 | 1.72016 |
| 9.86654 | 9.12260 | 9.75364 | 9.25763 |
| 9.83098 | 345,27 | 9.91575 | |
| 9.99614v | 416,45 | 9.99277 | |
| 2.53816v | −71,18 | 2.61956 | |

| | | | |
|---|---|---|---|
| 122,5 | 2)oben | 101 | |
| 81 | | 41 | |
| 203,5 | 41,5 | 142 | 60 |
| 2.30856 | 1.61805 | 2.15229 | 1.77815 |
| 9.84570 | 9.15519 | 9.68976 | 9.31562 |
| 9.85320 | 362,87v | 9.94051v | |
| 9.99552 | 438,59 | 9.99050v | |
| 2.55976 | −75.71v | 2.64206 | |

| | | | |
|---|---|---|---|
| 124 | 3)oben | 102 | |
| 82,5 | | 43,5 | |
| 206,5 | 41,5 | 145,5 | 58,5 |
| 2.31492 | 1.61805 | 2.16286 | 1.76716 |
| 9.85206 | 9.15519 | 9.70033 | 9.30463 |
| 9.84688 | 357.63 | 9.93707 | |
| 9.99552 | 435,61 | 9.99099 | |
| 2.55344 | −77.98 | 2.63910 | |

| | | | |
|---|---|---|---|
| 111 | 4)unten | 129 | |
| 59 | | 90,5 | |
| 170 | 52 | 219,5 | 38,5 |
| 2.23045 | 1.71600 | 2.34143 | 1.58546 |
| 9.76759 | 9.25314 | 9.87890 | 9.12293 |
| 9.90881 | 409.99 | 9.81545 | |
| 9.99292 | 333.15 | 9.99614 | |
| 2.61277 | −76.84 | 2.52263 | |

| | | | |
|---|---|---|---|
| 107,5 | 5)unten | 129 | |
| 55,5 | | 89 | |
| 163 | 52 | 218 | 40 |
| 2.21219 | 1.71600 | 2.33846 | 1.60206 |
| 9.74933 | 9.25314 | 9.87593 | 9.13953 |
| 9.91777 | 418,53 | 9.81936 | |
| 9.99292 | 335.92 | 9.99583 | |
| 2.62173 | −82,61 | 2.52623 | |

| | | | |
|---|---|---|---|
| 106 | 6)unten | 128 | |
| 50 | | 87 | |
| 156 | 56 | 215 | 41 |
| 2.19312 | 1.74819 | 2.33244 | 1.61278 |
| 9.73026 | 9.28593 | 9.86991 | 9.15025 |
| 9.92601 | 425,41 | 9.82694 | |
| 9.99176 | 341.67 | 9.99562 | |
| 2.62881 | −83.74 | 2.53360 | |

| | | | |
|---|---|---|---|
| 103,5 | 7)unten | 127,5 | |
| 46 | | 86 | |
| 149.5 | 57,5 | 213,5 | 41,5 |
| 2.17464 | 1.75967 | 2.32940 | 1.61805 |
| 9.71178 | 9.29681 | 9.86687 | 9.15552 |
| 9.93309 | 431.96 | 9.83059 | |
| 9.99131 | 344.46 | 9.99551 | |
| 2.63544 | −87.50 | 2.53714 | |

| | | | |
|---|---|---|---|
| 108 | 8)unten | 130,5 | |
| 56,5 | | 92 | |
| 164,5 | 51,5 | 222,5 | 38,5 |
| 2.21617 | 1.71181 | 2.34733 | 1.58546 |
| 9.75331 | 9.24895 | 9.88480 | 9.12293 |
| 9.91591 | 416,88 | 9.80728 | |
| 9.99306 | 326,94 | 9.99614 | |
| 2.62001 | −89,94 | 2.51446 | |

| | | | |
|---|---|---|---|
| 128 | 9)oben | 102,5 | |
| 88 | | 44,5 | |
| 216 | 40 | 147 | 58 |
| 2.33445 | 1.60206 | 2.16732 | 1.76343 |
| 9.87159 | 9.13920 | 9.70479 | 9.30090 |
| 9.82487 | 340,22 | 9.93555 | |
| 9.99584 | 434.24 | 9.99114 | |
| 2.53175 | −94,02 | 2.63773 | |

| | | | |
|---|---|---|---|
| 129 | 10)oben | 105 | |
| 90 | | 48,5 | |
| 219 | 39 | 153,5 | 56,5 |
| 2.34044 | 1.59106 | 2.18611 | 1.75205 |
| 9.87758 | 9.12820 | 9.72358 | 9.28952 |
| 9.81720 | 334.42 | 9.92867 | |
| 9.99605 | 427.87 | 9.99160 | |
| 2.52429 | −93,45 | 2.63131 | |

1898 Januar 18

8,8 1875,0 $7^h\ 25^m\ 18,^s24$ $+61°\ 45'\ 45,''6$ Krüger 5137 2 Beob

$+\ 2\ 3,857$ $-\ 2\ 49.67$

1898,0 $7\ 27\ 22,097$ $+61°\ 42'\ 55,''93$ Krüger 5137

$+\ 5,015$ $+\ 0,''49$

$7^h\ 27\ 27,112$ $+61°\ 42'\ 56,''42$

(47) Extrate $+\ 5\ 15,268$ $-\ 2\ 19.21$

$7^h\ 32^m\ 42,^s380$ $+61\ 40\ 37,21$ 10 Vgl.

C. w. Par. $-\ 0,^s487$ $+0,''82$

$10,^m5$ bei beprist. Luftzustand

1898 Januar 18 $7^h\ 19^m\ 4,^s5$ m. Z.

Corr. der Eph. $-\ 0,^s980$ $+\ 6,''18$

Rechn $7^h\ 32^m\ 42,^s871$ $+61°\ 40'\ 31,''84$

Bei den 2 Beobachtungen d. J. 1898 wurde die $o\pi = 8,''80$ laut Pariser Conferenz von 1896 angesetzt.

| | Jan. 18 | * | (247) | $\Delta\alpha$ | $\Delta\delta$ |
|---|---|---|---|---|---|
| g | 332 29 | 2 9 56,75 | 2 15 15,75 | + 5 19,00 | |
| $\alpha$ | 111 51 | 2 9 57.00 | 2 15 15,50 | + 5 18,50 | |
| H | 333 15 | 2 20 47.25 | 2 26 5,50 | + 5 18,25 | |
| g+a | 84 20 | 2 20 47.00 | 2 26 5,00 | + 5 18,00 | |
| as | 8.9945 | 2 32 25,00 | 2 37 42,50 | + 5 17,50 | |
| g | 0.9284 v | 2 32 25,50 | 2 37 43,00 | + 5 17,50 | |
| zu | 9.9979 | 2 48 2,50 | 2 53 19.50 | + 5 17,00 | |
| $\Delta\delta$ | 0.2692 | 2 48 3,25 | 2 53 19.75 | + 5 16,50 | |
| | 1.1955 v | 2 59 21,75 | 3 4 37.75 | + 5 16,00 | |
| | + 15.69 | 2 59 22,00 | 3 4 38,25 | + 5 16,25 | |
| | + 42.20 | 3 18 28,25 | 3 23 42,25 | + 5 14,00 | - 123,''64 |
| A | + 17.33 | 3 18 28,00 | 3 23 42,50 | + 5 14,50 | 127,23 |
| $\Delta\alpha$ | +75,22 | 3 28 34,75 | 3 33 48,50 | + 5 13,75 | 131,05 |
| | | 3 28 34,75 | 3 33 49.00 | + 5 14,25 | 132,87 |
| H+a | 85 6 | 3 40 7.00 | 3 45 21,50 | + 5 14,50 | 135,71 |
| as $\delta$ | 9.9448 | 3 40 7.00 | 3 45 19.50 | + 5 12,50 | 140,64 |
| cs | 8.9315 | 3 50 30,00 | 3 55 42,25 | + 5 12,25 | 143,49 |
| a | 1.3025 | 3 50 30,00 | 3 55 42,75 | + 5 12,75 | 148,91 v |
| zu | 9.9984 | 4 1 25,50 | 4 6 37.00 | + 5 11,50 | 155,07 |
| a $\delta$ | 0.3244 | 4 1 25,75 | 4 6 36,75 | + 5 11,00 | 153,53 |
| | 1.6253 | | $3^h\ 12^m\ 13,^s22$ | $+5^m\ 15,^s275$ | - 139,''2 |
| gj | 0.5930 n | | + 0 17.86 | - 0.007 | |
| c, $\delta$ | 9.6756 | | $3^h\ 12^m\ 31,^s08$ | +zt | |
| g j $\delta$ | 0.2686 n | | 19 51 35,01 | | |
| jgr | 9.9229 v | +0,''84 | 7 20 56,07 | | |
| jrc | 0.1788 | + 1,51 | - 1 12,24 | | |
| | | + 2,35 | $7^h\ 19^m\ 4,^s4$ m. Z. | | |
| | | - 1,86 | | | |
| | | $\Delta\delta$ = + 0,49 | | | |

Hamburg Ludendorf Jan 18
Hamburg Schorr Febr 3
Hamburg Ludendorf Febr 4

| | | | |
|---|---|---|---|
| 133,5 | 1) oben | 103,5 | |
| 97 | | 45 | |
| 230,5 | 36,5 | 148,5 | 58,5 |
| .36267 | 1.56229 | 2.17173 | 1.76716 |
| 90129 | 9.10091 | 9.71090 | 9.30633 |
| 9.78132 | 308,23 | 9.93340 | |
| 9.99651 | 431,87 | 9.99091 | |
| .48887 | -123,64 | 2.63535 | |

| | | | |
|---|---|---|---|
| 135,5 | 2) oben | 105 | |
| 99 | | 50 | |
| 234,5 | 36,5 | 155 | 55 |
| 2.37014 | 1.56229 | 2.19033 | 1.74036 |
| 9.90876 | 9.10091 | 9.72950 | 9.27953 |
| .76769 | 298.71 | 9.92632 | |
| 9.99651 | 425.94 | 9.99199 | |
| 47525 | -127,23 | 2.62935 | |

| | | | |
|---|---|---|---|
| 111 | 3) unten | 139 | |
| 61 | | 104 | |
| 172 | 50 | 243 | 35 |
| 2.23553 | 1.69897 | 2.38561 | 1.54407 |
| 9.77415 | 9.23759 | 9.92478 | 9.08324 |
| 9.90531 | 407.16 | 9.73326 | |
| 9.99342 | 276.11 | 9.99679 | |
| 2.60977 | -131.05 | 2.44109 | |

| | | | |
|---|---|---|---|
| 111 | 4) unten | 139 | |
| 60,5 | | 104,5 | |
| 171,5 | 50,5 | 243,5 | 34,5 |
| 2.23426 | 1.70329 | 2.38650 | 1.53782 |
| 9.77288 | 9.24191 | 9.92567 | 9.07699 |
| 9.90600 | 407,68 | 9.73111 | |
| 9.99328 | 274.81 | 9.99688 | |
| 2.61032 | -132,87 | 2.43903 | |

| | | | |
|---|---|---|---|
| 107.5 | 5) unten | 137.5 | |
| 56 | | 103,5 | |
| 163,5 | 51,5 | 241 | 34 |
| 2.21352 | 1.71181 | 2.38202 | 1.53148 |
| 9.75214 | 9.25043 | 9.92119 | 9.07065 |
| 9.91646 | 417.36 | 9.74170 | |
| 9.99301 | 281.65 | 9.99697 | |
| 62051 | -135.71 | 2.44971 | |

| | | | |
|---|---|---|---|
| 115,5 | 6) unten | 142,5 | |
| 68 | | 109 | |
| 183,5 | 47,5 | 251,5 | 33,5 |
| 2.26364 | 1.67669 | 2.40054 | 1.52504 |
| 9.80226 | 9.21531 | 9.93971 | 9.06421 |
| 9.88825 | 392.06 | 9.69231 | |
| 9.99407 | 251.42 | 9.99706 | |
| 2.59336 | -140.64 | 2.40041 | |

| | | | |
|---|---|---|---|
| 111,5 | 7) unten | 141 | |
| 64,5 | | 108 | |
| 176 | 47 | 249 | 33 |
| 2.24551 | 1.67210 | 2.39620 | 1.51851 |
| 9.78413 | 9.21072 | 9.93537 | 9.05768 |
| 9.89965 | 402,61 | 9.70531 | |
| 9.99419 | 259.12 | 9.99715 | |
| 2.60488 | -143.49 | 2.41350 | |

| | | | |
|---|---|---|---|
| 140 | 8) oben | 109 | |
| 106 | | 53 | |
| 246 | 34 | 162 | 56 |
| 2.39094 | 1.53148 | 2.20952 | 1.74819 |
| 9.92956 | 9.07010 | 9.74869 | 9.28736 |
| 9.72126 v | 268,71 | 9.91806 | |
| 9.99698 | 417.62 v | 9.99168 v | |
| .42928 v | -148,91 v | 2.62078 v | |

| | | | |
|---|---|---|---|
| 141 | 9) oben | 108,5 | |
| 108 | | 56,5 | |
| 249 | 33 | 165 | 52 |
| 2.39620 | 1.51851 | 2.21748 | 1.71600 |
| 9.93482 | 9.05713 | 9.75665 | 9.25517 |
| 9.70691 | 260,08 | 9.91431 | |
| 9.99716 | 415.15 | 9.99285 | |
| 2.41511 | -155,07 | 2.61820 | |

| | | | |
|---|---|---|---|
| 143 | 10) oben | 112 | |
| 108,5 | | 60,5 | |
| 251,5 | 34,5 | 172,5 | 51,5 |
| 2.40054 | 1.53782 | 2.23679 | 1.71181 |
| 9.93916 | 9.07644 | 9.77596 | 9.25098 |
| 9.69401 | 252.31 | 9.90432 | |
| 9.99689 | 405,84 | 9.99299 | |
| 2.40194 | -153,53 | 2.60835 | |

Erscheinung XIV 1901 September 16

| | | | | | | |
|---|---|---|---|---|---|---|
| (7.0) | 1875,0 | $23^h\ 58^m\ 39^s,28$ | $-1°\ 11'\ 51''.2$ | Nicol. A.G. 5952 | Ep. 1883,9 | 2 Beob. |
| | | $+1\ 19.888$ | $+8\ 41.38$ | | | |
| (7) | 1885,0 | $23\ 59\ 10,054$ | $-1\ 8\ 29,72$ | Karlsruhe 8 Beob. | Ep. 1885,67 | |
| | | $+\ 49.162$ | $+5\ 20,85$ | | | |
| | 1901.0 | $23^h\ 59^m\ 59^s,168$ | $-1°\ 3'\ 9''.82$ | Nicol. | | |
| | | $59,216$ | $3\ 8.87$ | Karler. | | |
| | 1901,0 | $23^h\ 59^m\ 59^s,194$ | $-1°\ 3'\ 9''.34$ | $\frac{1}{2}$ (Nicol. A.G. 5952 + Karlsruhe) | | |
| | | $+\ 4,195$ | $+\ 27.42$ | | | |
| | | $0^h\ 0^m\ 3^s,389$ | $-1°\ 2'\ 41''.92$ | | | |
| | | $+\ 9\ 14,227$ | $+0'\ 18''.17$ | | | |
| (247) | Eukrate | $0^h\ 9^m\ 17^s.616$ | $-1°\ 2'\ 23''.75$ | 6 Vgl. | | |

1901 September 16 $9^h\ 38^m\ 49^s$ m.Z. Grösse $10^m,0$

C.w. Par. $-0^s,194$ $+5''.39$

Corr. d. Eph. im Berl. Jahrb. $-0^s,884$ $-10''.54$

$-0^s.88$

Unmittelbar $10^m,1$ bei guter, allerdings feuchter Luft

Gleichheit mit ε Par. K. I 1852,5 $0^h\ 7^m\ 7^s$ $-1°\ 11'$

Durch Vergl. mit (9.3) 1855,0 $0^h\ 5^m\ 8^s,3$ $-1°\ 14',8$ BD $-1°\ 10$ fand in Eukrate $9^m.9$ Hierbei ist angenommen dass der zur Grössenvergl. benutzte Stern

Paris 1852,5 ($10^m$) $0^h\ 4^m\ 50^s$ $-1°\ 15',1$ welchem ein anderer $11^m$ ca $17^s$ auf den # folgt wirklich gleich dem B.D. $-1°10$ ist trotz der schlechten Uebereinst. in A.R.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| g | 16 | 51 | Stern | | Eukrate | $\Delta\alpha$ | $\Delta\delta$ |
| ~ | 0 | 0 | $20^h\ 43^m\ 32^s,75$ | 20 | 52 49.00 | $+9^m$ $16^s,25$ | |
| K | 97 | 19 | 20 43 32,75 | 20 | 52 49.25 | 9 16,50 | |
| g+α | 16 | 51 | 20 58 19.00 | 21 | 7 34,50 | 9 15,50 | |
| cos | 9.9809 | | 20 58 19,50 | 21 | 7 34,00 | 9 15,50 | |
| g | 1.3044 | | 21 11 33,50 | 21 | 20 48,00 | 9 14,50 | |
| sin | 9.4622 | | 21 11 33,75 | 21 | 20 48,00 | 9 14,25 | |
| tgδ | 8.2641 | n | 21 24 54,00 | 21 | 34 7.75 | 9 13,75 | $+14''.52$ |
| | 9.0307 | n | 21 24 53,75 | 21 | 34 8,25 | 9 14,50 | $+11,09$ |
| | $-0.11$ | | 21 39 22,25 | 21 | 48 35,25 | 9 13,00 | $+18,65$ |
| f | $+44,38$ | | 21 39 22,25 | 21 | 48 35,50 | 9 13,25 | $+15,87$ |
| | $+44,27$ | | 21 53 2,00 | 22 | 2 14,50 | 9 12,50 | $+23,68$ |
| | $+18,65$ | | 21 53 2,00 | 22 | 2 14,25 | 9 12,25 | $+25,05$ |
| Δα | $+62.92$ | | | | | | |
| H+α | 97 | 19 | | | | | |
| sinδ | 8.2640 | n | | | | | |
| cos | 9.1050 | n | | | | | |
| h | 1.2742 | 1.2853 | | | | | |
| sin | 9.9964 | 8.6432 | | | | | |
| secδ | 6.0001 | $+8''.09$ | | | | | |
| | 1.2707 | $+19.29$ | | | | | |
| Gi | 0.9079 | $+0,04$ | | | | | |
| cosδ | 9.9999 | $+27,42$ | | | | | |
| | 0.9078 | | | | | | |

| | | |
|---|---|---|
| | $21^h\ 27^m\ 41^s,58$ | $+9^m\ 14^s,229$ $+18''.14$ |
| | $-8\ 24,63$ | $-0.001$ |
| | $21^h\ 19^m\ 16^s,95$ | $-0,001$ $+0''.02$ |
| | $11\ 38\ 52.71$ | |
| | $9\ 40\ 24,24$ | |
| | $-1\ 35,09$ | |
| | $9^h\ 38^m\ 49^s,15$ m.Z. | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 53,5 | 1/oben | 56 | | 54 | 2/unten | 53 | | |
| | 32,5 | | 34,5 | | 35 | | 32 | | |
| | 86 | 21 | 90,5 | 21,5 | 89 | 19 | 85 | 21 | |
| | 1.93450 | 1.32222 | 1.95665 | 1.33244 | 1.94939 | 1.27875 | 1.92942 | 1.32222 | |
| | 9.79738 | 9.18510 | 9.81993 | 9.19572 | 9.81227 | 9.14163 | 9.79270 | 9.18550 | |
| | 9.89147 | 395.73 | 9.87550 | | 9.88125 | 387.36 | 9.89446 | | |
| | 9.99485 | 381.21 | 9.99458v | | 9.99579 | 398,45 | 9.99484 | | |
| | 2.59740 | +14,52 | 2.58116v | | 2.58812 | 11.09 | 2.60038 | | |
| | 58 | 3/unten | 56 | | 52 | 4/oben | 54,5 | | |
| | 39,5 | | 36 | | 29,5 | | 32,5 | | |
| | 97,5 | 18,5 | 92 | 20 | 81,5 | 22,5 | 87 | 22 | |
| | 1.98900 | 1.26717 | 1.96379 | 1.30103 | 1.91116 | 1.35218 | 1.93952 | 1.34242 | |
| | 9.85188 | 9.13005 | 9.82707 | 9.16437 | 9.77404 | 9.21506 | 9.80280 | 9.20570 | |
| | 9.84706 | 358,22 | 9.86980 | | 9.90537v | 407.88v | 9.88789 | | |
| | 9.99601 | 376,87v | 9.99532 | | 9.99408 | 392,01 | 9.99433 | | |
| | 2.55415 | 18.65v | 2.57620 | | 2.61053v | 15,87v | 2.59330 | | |
| | 52,5 | 5/oben | 56,5 | | 54 | 6/unten | 51 | | |
| | 31,5 | | 35 | | 34 | | 27.5 | | |
| | 84 | 21 | 91,5 | 21,5 | 88 | 20 | 78,5 | 23,5 | |
| | 1.92428 | 1. | 1.96142 | 1. | 1.94448 | 1.30103 | 1.89487 | 1.37104 | |
| | 9.78716 | | 9.82470 | | 9.80736 | 9.16391 | 9.75815 | 9.23431 | |
| | 9.89785 | 401,59 | 9.87173 | | 9.88475 | 390,08 | 9.91358 | | |
| | 9.99485 | 377,91 | 9.99458v | | 9.99533 | 415,13 | 9.99352 | | |
| | 2.60378 | 23,68 | 2.57739v | | 2.59116 | 25,05 | 2.61818 | | |
| Eu | 59 | Sept 18 1/oben | 52,5 | | 60 | 2/oben | 54 | | |
| | 39,5 | | 29,5 | | 41 | | 32,5 | | |
| | 98,5 | 19,5 | 82 | 23 | 101 | 19 | 86,5 | 21,5 | |
| | 1.99344 | 1.29063 | 1.91381 | 1.36173 | 2.00432 | 1.27875 | 1.93702 | 1.33244 | |
| | 9.85674 | 9.15333 | 9.77671 | 9.22463 | 9.86762 | 9.14205 | 9.79992 | 9.19534 | |
| | 9.84198 | 353,68 | 9.90390 | | 9.82969 | 343,99 | 9.88981 | | |
| | 9.99556 | 406,24 | 9.99380 | | 9.99578 | 393,99 | 9.99459v | | |
| | 2.54862 | +52,56 | 2.60878 | | 2.53655 | 50,00 | 2.59548v | | |
| | 53,5 | 3/unten | 59,5 | | | | | | |
| | 30,5 | | 42 | | | | | | |
| | 84 | 23 | 101,5 | 17,5 | | | | | |
| | 1.92428 | 1.36173 | 2.00647 | 1.24304 | | | | | |
| | 9.78758 | 9.22503 | 9.86937 | 9.10594 | | | | | |
| | 9.89760 | 400,38 | 9.82760 | | | | | | |
| | 9.99379 | 342,85 | 9.99643 | | | | | | |
| | 2.60247 | 57,53 | 2.53511 | | | | | | |

1901 September 18

| | | | | | |
|---|---|---|---|---|---|
| 0) 1875,0 | $0^h\ 8^m\ 25^s,73$ | $-0°\ 59'\ 51'',8$ | Nicol. A.G. 26 | 3,4 Beob. | |
| | $+1\ 19.863$ | $+8\ 40.99$ | | | |
| 1885,0 | $0\ 8\ 56,475$ | $-0\ 56\ 31,15$ | Karlsruhe II | 6 Beob. | |
| | $+0\ 49.147$ | $+5\ 20,58$ | | | |
| 1901,0 | $0^h\ 9^m\ 45^s,593$ | $-0°\ 51'\ 10'',81$ | Nicol. | | |
| | $45,622$ | $51\ 10,57$ | Karlsr. | | |
| 1901,0 | $0^h\ 9^m\ 45^s,607$ | $-0°\ 51'\ 10'',69$ | $\frac{1}{2}$(Nicol. A.G. 26 + Karlsr.) | | |
| | $+4,205$ | $+27.26$ | | | |
| | $0^h\ 9\ 49,812$ | $-0°\ 50'\ 43'',43$ | | | |
| | $-3\ 16,364$ | $+0\ 58,93$ | | | |
| 9) Eukrate | $0^h\ 6^m\ 33^s,448$ | $-0°\ 49'\ 44'',50$ | | 10 Vgl. | |

1901 September 18 $10^h\ 36^m\ 35^s$ m. Z.

C. w. Par. $-0^s,124$ $+5'',42$ Grösse $9^m.7$

Corr. d. Eph. $-1^s,039$ $-11'',07$

unmittelbar $9^m.7$ geschätzt.

47) höchstens $0^m,15$ schwächer wie der $28^s$ pr. 10' nördlichere $9.5$ $0^h\ 3^m\ 38^s,0$ $-0°\ 56'0$ BD $-0',11$ $+8'',12$ $+19.00$

7) $0^m,15$ heller wie der in B.D fehlende v. d. Par. K. 1852,5 $0^h\ 2^m,0$ $-0°\ 58'$ $+0,04$

| | | Eukrate | | * | | $\Delta\alpha$ | $\Delta\delta$ |
|---|---|---|---|---|---|---|---|
| $\varphi$ | 16 49 | | | | | | |
| $\alpha$ | 2 26 | $21^h\ 58^m\ 56,50$ | 22 | 2 | 10,25 − 3 | 13,75 | |
| $\pi$ | 95 9 | 21 58 56,25 | 22 | 2 | 10,75 − 3 | 14,50 | |
| $\varphi+\alpha$ | 19 15 | 22 9 10.00 | 22 | 12 | 25,00 − 3 | 15,00 | |
| cos | 9.9750 | 22 9 9.50 | 22 | 12 | 25,25 − 3 | 15,75 | |
| $\varphi$ | 1.3059 | 22 17 14.75 | 22 | 20 | 30,25 − 3 | 15,50 | |
| sin | 9.5181 | 22 17 14,75 | 22 | 20 | 30,50 − 3 | 15,75 | |
| $\delta\sigma$ | 8.1727 n | 22 23 47.00 | 22 | 27 | 3.00 − 3 | 16,00 | |
| | 8.9967 n | 22 23 47.00 | 22 | 27 | 3,00 − 3 | 16,00 | |
| | − 0.00 | 22 29 58,75 | 22 | 33 | 14,75 − 3 | 16,00 | |
| | + 18.63 | 22 29 59.00 | 22 | 33 | 15,00 − 3 | 16,00 | |
| f | + 44,54 | 22 37 6,50 | 22 | 40 | 23,00 − 3 | 16,50 | + 52".56 |
| | + 18,53 | 22 37 6,50 | 22 | 40 | 23,25 − 3 | 16,75 | 50.00 |
| $\Delta\alpha$ | + 63,07 | 22 43 48,75 | 22 | 47 | 5,50 − 3 | 16,75 | 57.53 |
| | | 22 43 48,75 | 22 | 47 | 6.00 − 3 | 17,25 | 59.37 |
| $\pi+\alpha$ | 97 35 | 22 50 21,50 | 22 | 53 | 38,50 − 3 | 17,00 | 53,96 |
| sin $\delta$ | 8.1717 n | 22 50 21.50 | 22 | 53 | 38,75 − 3 | 17,25 | 59.65 |
| cos | 9.1205 n | 22 59 16,50 | 22 | 2 | 34.50 − 3 | 18,00 | 59.14 |
| h | 1.2739 | 22 59 16,50 | 22 | 2 | 34.00 − 3 | 17,50 | 60.48 |
| sin | 9.9962 | 23 5 27.25 | 22 | 8 | 45.25 − 3 | 18,00 | 63.53 |
| sec $\delta$ | 0.0000 | 23 5 27.25 | 22 | 8 | 45,25 − 3 | 18,00 | 72,58 |
| | 1.2701 | $22^h\ 33^m\ 30^s,72$ | | | | $-3^m\ 16^s,362$ | + 58",88 |
| fi | 0.9095 | − 8 24,90 | | | | 0.000 | |
| cos $\delta$ | 0.0000 | $22^h\ 25^m\ 5^s,82$ | | | | − 0,002 | + 0",05 |
| fi cos $\delta$ | 0.9095 | 11 46 45,82 | | | | | |
| | 1.2809 | 10 38 20,00 | | | | | |
| | 8.5661 | − 1 44,58 | | | | | |
| | | $10^h\ 36^m\ 35^s,42$ m. Z. | | | | | |

Fortsetzung im Heft II

| | | | |
|---|---|---|---|
| 52 | 4) unten | 58 | |
| 29 | | 42 | |
| 81 | 23 | 100 | 16 |
| 1.90849 | 1.36173 | 2.00000 | 1.20412 |
| 9.77179 | 9.22503 | 9.86290 | 9.06702 |
| 9.90658 | 408,75 | 9.83519 | |
| 9.99379 | 349,37 v | 9.99702 | |
| 2.61145 | 59,37 v | 2.54329 | |

| | | | |
|---|---|---|---|
| 51,5 | 5) unten | 57,5 | |
| 28 | | 40 | |
| 79,5 | 23,5 | 97,5 | 17,5 |
| 1.90037 | 1.37107 | 1.98900 | 1.24304 |
| 9.76367 | 9.23437 | 9.85190 | 9.10594 |
| 9.91083 v | 412,51 | 9.84704 | |
| 9.99352 | 358,55 | 9.99643 | |
| 2.61543 v | 53,96 | 2.55455 | |

| | | | |
|---|---|---|---|
| 61 | 6) oben | 54 | |
| 43 | | 33,5 | |
| 104 | 18 | 87,5 | 20,5 |
| 2.01703 | 1.25527 | 1.94201 | 1.31175 |
| 9.88033 | 9.11857 | 9.80491 | 9.17465 |
| 9.81353 | 331,76 | 9.88646 | |
| 9.99622 | 391.41 | 9.99509 | |
| 1.52083 | 59,65 | 1.59263 | |

| | | | |
|---|---|---|---|
| 61,5 | 7) unten | 55 | |
| 43,5 | | 34 | |
| 105 | 18 | 89 | 21 |
| .02119 | 1. | 1.94939 | 1.32222 |
| 88449 | | 9.81229 | 9.18512 |
| 9.80774 | 327.37 | 9.88123 | |
| 9.99622 | 386,51 | 9.99485 | |
| 2.51504 | 59,14 | 2.58716 | |

| | | | |
|---|---|---|---|
| 61 | 8) unten | 53 | |
| 43 | | 34,5 | |
| | | 87,5 | 18,5 |
| wie 6) | | 1.94201 | 1.26717 |
| | | 9.80491 | 9.13007 |
| | 331.76 | 9.88646 | |
| | 392,24 | 9.99601 | |
| | 60.48 | 2.59355 | |

| | | | |
|---|---|---|---|
| 53 | 9) unten | 59 | |
| 31 | | 44 | |
| 84 | 22 | 103 | 15 |
| 1.92428 | 1.34242 | 2.01284 | 1.17609 |
| 9.78758 | 9.20572 | 9.87574 | 9.03899 |
| 9.89760 | 40087 | 9.81961 | |
| 9.99433 | 337,34 | 9.99738 | |
| 2.60301 | 63,53 | 2.52807 | |

| | | | |
|---|---|---|---|
| 51,5 | 10) unten | 59,5 | |
| 27,5 | | 42,5 | |
| 79 | 24 | 102 | 17 |
| 1.89763 | 1.38021 | 2.00860 | 1.23045 |
| 9.76093 | 9.24351 | 9.87150 | 9.09335 |
| 9.91221 | 413,54 | 9.82498 v | |
| 9.99323 | 340,96 | 9.99664 | |
| 2.61652 | 72,58 | 2.53270 v | |

Planet (258) Tyche entdeckt von R. Luther am Siebenfüssler in Düsseldorf 1886 Mai 4 nach 10h in 215° 0′ = 14h 20m Rect. − 9° 31′ Decl. A.N. 2729
benannt durch H. Director George Rümker, kais. Prüfungs Commissar in Hamburg. (A.N. 2734) b. Circular 274, 275 etc.

Astr. N. 2730 (11,3 gr.)

## 1886 Mai 6.

Der *a(9) wurde für die Beobachtungen in Düsseldorf, Paris, Rom zunächst micrometrisch durch andere Merid. Ki * * bestimmt (siehe die b. Circ., A.N. und Tisserand b. a III pt.

Die Düsseldorfer Beobachtungen wurden zunächst mit der Döfr microm. Bestt. *a(9) 1886,0 $14^h 15^m 57^s,22$ − 9° 15′ 32″,01 reducirt und veröffentlicht.
213° 59′ 18,37″

Jetzt möge die Reduction der Döfr Beob. nach der Merid. Beob. des *a (9) von Dr Bolte in Hamburg folgen.

Nach Dr Bolde's Mer. Beob. in Hamburg 1886 Mai 18.

| | | | |
|---|---|---|---|
| (9) sch. Ort Mai 18 | $14^h 15$ | 59,48 | − 9° 15′ 39,08 |
| reducirt auf 1886,0 | 213 59 | 52,20 | |
| | − | 31,55 | + 4,81 |
| (9) 1886,0 | 213° 59 | 20,65 | − 9° 15′ 34,27 |

Red. in Zeit *a(9) $14^h 15^m 57^s,38$ nach Bolte in Hamburg

| | | | |
|---|---|---|---|
| Red. auf Mai 6 | | + 31,09 | − 5,06 |
| *a(9) 1886 Mai 6 | 213° 59 | 51,74 | − 9° 15′ 39,33 |
| 1886 Mai 6 I | + 35 | 58,63 | − 4,61 |
| $12^h 11^m 47^s,7$ | 214° 35 | 50,37 | − 9° 15′ 43,94 |
| + 21. Dof | $14^h 18$ | 23,36 | (258) Tyche (11.12) 10 V. mit *a(9) |
| | C. w. Par. | − 0,01 | + 3″,87 |
| | Corr. d. h. Eph. | + 0,27 | − 2,75 |

| | | | |
|---|---|---|---|
| schwäch. Ort | | | |
| *a(9) 1886 Mai 6 | 213° 59′ | 51,74 | − 9° 15′ 39,33 |
| 1886 Mai 6 II | + 35 | 17,19 | + 24,31 |
| $12^h 34^m 26,1$ | 214° 35 | 8,93 | − 9 15 15,02 |
| m 21 Dof | $14^h 18$ | 20,60 | (258) Tyche 10 V. mit *a (9) |
| | C. w. Par | + 0,06 | + 3,85 |
| | Corr. d. hamburger Ephem. | + 0,36 | − 1,19 |

für Dr Bolde's Mer. Kr. Beob.
*a 1886 Mai 18,4

| | | | |
|---|---|---|---|
| f | + 11,66 | 274° 50′ | 64° 2′ |
| lg | 1.0180 | | g. 2066 n |
| g | 60 50 | g. 9236 | g. 6413 |
| lh | 1.3007 | 1.0180 | 1.3007 |
| H | 210 2 | g. 9985 n | g. 9538 |
| li | 0.6376 n | g. 2123 n | 0.0057 |
| | | | 0.6376 n |
| | | + 11,66 | − 4,28 |
| | | + 1,69 | + 0,88 |
| | | + 18,20 | − 1,41 |
| | | + 31,55 | − 4,81 |

| | | | | | |
|---|---|---|---|---|---|
| *a(9) | α 213° 59′ | δ − 9° 15′,5 | | | |
| 1886 Mai 6,5 | g + α | H + α | | | |
| f | + 10,23 | 277° 26′ | 75° 13′ | | |
| lg | 0.9989 | | g. 2065 n | | |
| g | 63 27 | g. 1118 | g. 4068 | | |
| lh | 1.2934 | 0.9989 | 1.2934 | + 10,23 | − 5,54 |
| H | 221 14 | g. 9963 n | g. 9854 | + 1,61 | + 1,29 |
| li | 0.7495 n | g. 2122 n | 0.0057 | + 19,25 | − 0,81 |
| | | | 0.7495 n | + 31,09 | − 5,06 |

1886 Mai 6 I$^h$ Beob. Reihe

| *a(9) | (258) 11.12$^h$ | Δα | Δδ |
|---|---|---|---|
| $13^h 26$ 49,00 | $13^h 29$ 14,25 | + 2m 25,25 | − 25,41 |
| 26 49,00 | 29 14,50 | 25,50 | − 8,90 |
| 31 38,00 | 34 3,50 | 25,50 | − 8,13 |
| 31 38,00 | 34 3,50 | 25,50 | − 7,97 |
| 14 1 19,00 | 14 3 43,50 | 24,50 | − 3,86 |
| 1 19,00 | 3 43,50 | 24,50 | + 3,95 |
| 9 0,25 | 11 24,75 | 24,50 | 0,00 |
| 9 0,25 | 11 24,75 | 24,50 | 0,00 |
| 15 47,50 | 18 11,25 | 23,75 | 0,00 |
| 15 47,50 | 18 11,25 | 23,75 | + 4,22 |
| 25 7,75 | 27 31,00 | 23,25 | − 54,27 |
| 25 7,75 | 27 31,00 | 23,25 | + 8,17 |
| 31 9,25 | 33 32,75 | 23,50 | − 46,10 |
| 31 9,25 | 33 32,75 | 23,50 | 10) |
| 35 31,50 | 37 54,50 | 23,00 | − 4″,61 |
| 35 31,50 | 37 54,50 | 23,00 | Δδ |
| 40 23,50 | 42 46,50 | 23,00 | |
| 40 23,50 | 42 46,50 | 23,00 | |
| 44 54,50 | 47 17,25 | 22,75 | |
| 44 54,50 | 47 17,25 | 22,75 | |
| 20) 571 | 18,75 | 78,25 | |
| − 140 | | 20) | |
| 331 | | + 2m 23,912 | |
| $14^h 16^m 33,9$ | | Corr. 0,004 | |
| − 5 56,4 | | + 2m 23,908 | Δα in Zeit |
| $14^h 10 37,5$ | | + 35′ 58″,63 | Δα in Bogen |
| 2 56 59,45 | | | |
| 11 13 38,05 | | | |
| − 1 50,35 | | I Δα | |
| $11^h 11 47,7$ | | m 21 Dof | |

1886 Mai 6 II$^h$ Beob. Reihe

| *a(9) | (258) 11.12$^{hm}$ | Δα | Δδ |
|---|---|---|---|
| $15^h 7$ 38,75 | $15^h 10$ 0,25 | + 2m 21,50 | + 10″,98 |
| 7 38,75 | 10 0,25 | 21,50 | 20,54 |
| 12 6,00 | 14 27,75 | 21,75 | 15,60 |
| 12 6,00 | 14 27,50 | 21,50 | 21,21 |
| 17 58,00 | 20 19,50 | 21,50 | 20,37 |
| 17 58,00 | 20 19,25 | 21,25 | 34,11 |
| 22 36,50 | 24 58,25 | 21,75 | 36,42 |
| 22 36,50 | 24 58,25 | 21,75 | 19,91 |
| 26 59,50 | 29 20,75 | 21,25 | 31,28 |
| 26 59,50 | 29 20,75 | 21,25 | 32,67 |
| 34 25,00 | 36 46,75 | 21,75 | 243,09 |
| 34 25,00 | 36 46,75 | 21,75 | 10) |
| 38 57,00 | 41 18,00 | 21,00 | + 24″,31 |
| 38 57,00 | 41 18,25 | 21,25 | Δδ |
| 16 5 40,25 | 16 8 1,00 | 20,75 | |
| 5 40,25 | 8 1,00 | 20,75 | |
| 10 0,75 | 12 20,50 | 19,75 | |
| 10 0,50 | 12 20,50 | 20,00 | |
| 14 27,00 | 16 47,50 | 20,50 | |
| 14 27,00 | 16 47,50 | 20,50 | |
| 428 | 40,25 | 23,00 | |
| + 360 | | 20) | |
| 20) 788 | 40,25 | + 2 21,150 | |
| $15^h 39$ | 26,0 | 0,004 | |
| − 5 | 56,5 | | |
| $15^h 33$ | 29,5 | + 2m 21,146 | Δα in Zeit |
| 2 56 | 59,45 | + 35′ 17″,19 | Δα in Bogen |
| $12^h 36$ | 30,05 | | |
| − 2 | 3,92 | | |
| $12^h 34^m$ | 26,1 | m 21 Dof | |

* * v. Dr Bolte in Hamburg neu bestimmt, Mrz. 1893

1886 Mai 6. Fortsetzung

1. Beob. Reihe *a(9) nahe auf dem Par. vom Pl.(258) 11.12te

| | | beide unten | | | beide unten | | beide unten | | beide unten |
|---|---|---|---|---|---|---|---|---|---|
| äuss. S. | 62 | | 64,5 | | 62 | 63 | 60 | 61 | 59,5 | 60,5 | 59 | 59,5 |
| inn. S. | 44 | | 47 | | 44 | 45 | 42 | 43 | 41,5 | 42,5 | 41 | 41,5 |
| l. D | 106 | 18 | 111,5 | 17,5 | 106 18 | 108 18 | 102 18 | 104 18 | 101 18 | 103 18 | 100 18 | 101 18 |
| l. lgD | 2,02531 | 1,25527 | 2,04727 | 1,24304 | | 2,03342 | 2,00360 | 2,01703 | 2,00432 | 2,01284 | 2,00000 | |
| A lg. B | 9,88344 | 9,11340 | 9,90540 | 9,10117 | | 9,89155 | 9,86673 | 9,87516 | 9,86245 | 9,87097 | 9,85813 | |
| l cos t | 9,80922 | | 9,77399 | | | 9,79726 | 9,83075 | 9,82037 | 9,83569 | 9,82564 | 9,84048 | |
| l cos B | 9,99631 | 327,89 | 9,99651 | | 327,89 | 9,99631 | 9,99631 | 9,99631 | 9,99631 | 9,99631 | 9,99631 | 352,36 |
| cos t cos B | 2,51573 | 302,48 | 2,48070 | | 318,99 | 2,50377 | 2,53726 | 2,52688 | 2,54220 | 2,53215 | 2,54699 | 348,50 |
| Diff | | − 25,41 | | | − 8,90 | | 344,55 | 336,42 | | 340,53 | | − 3,86 |
| | | | | | | | − 8,13 | | − 7,97 | | | |

| | beid oben | | beid oben | | beid oben | | beid oben | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| g. äuss. S. | 59,5 | 60 | 60,5 | 60,5 | 61 | 61 | 61 | 61 | 61 | 61,5 | * δ | −9° 15,6 |
| g. inn. S. | 41,5 | 42 | 42,5 | 42,5 | 43 | 43 | 43 | 43 | 43 | 43,5 | cos δ | 9,99430 |
| l. D. | 101 18 | 102 18 | 103 18 | 103 18 | 104 18 | 104 18 | 104 18 | 104 18 | 104 18 | 105 18 | | 7,85813 |
| l. lgD | | | | | | | | | | 2,02119 | | |
| l. t lgB | | | | | | | | | | 9,87932 | | |
| l cos t | | | | | | | | | | 9,81489 | | |
| l cos B | 348,50 | | | | | | | | 336,42 | 9,99631 | II Pl. δ | −9° 15,2 |
| cos t cos B | 344,55 | | | | | | | | 332,20 | 2,52140 | cos δ | 9,99431 |
| Diff | + 3,95 | | 0,00 | | 0,00 | | 0,00 | | + 4,22 | | | 7,85814 |

2. Beob. Reihe *a(9) schon etwas südlich vom Pl.(258) 11.12te

| | beide unten | | | beide unten | | beide unten | | beide unten | |
|---|---|---|---|---|---|---|---|---|---|
| g. äuss. S. | 59,5 | 58,5 | | 60 | 57,5 | 58 | 56 | 59 | 56,5 | 58 | 55,5 |
| g. inn. S. | 41,5 | 39,5 | | 42 | 39 | 40 | 37,5 | 41 | 37,5 | 40 | 36,5 |
| l. D | 101 18 | 98 | 19 | 102 18 | 96,5 | 98 18 | 93,5 18,5 | 100 18 | 94 19 | 98 18 | 92 19 |
| l. lgD | | 1,99123 | 1,27875 | | 1,98453 | 1,26717 | 1,97081 | | 1,97313 | | 1,96379 |
| l. t lgB | | 9,84937 | 9,13689 | | 9,84267 | 9,12531 | 9,82895 | | 9,83127 | | 9,82193 |
| l cos t | | 9,84960 | | | 9,85610 | | 9,84960 | 9,86824 | 9,86629 | | 9,87394 |
| l cos B | 348,50 | 9,99588 | | 344,55 | 9,99610 | 359,84 | 9,99631 | 9,99610 | 9,99588 | 359,84 | 9,99588 |
| cos t cos B | 359,48 | 2,55568 | | 365,09 | 2,56240 | 375,44 | 2,55611 | 2,57454 | 2,57237 | 380,21 | 2,58002 |
| Diff | + 10,98 | | | + 20,54 | | + 15,60 | | | + 21,21 | | + 20,37 |

| | beide oben | | | beide oben | | beide oben | | beide oben | |
|---|---|---|---|---|---|---|---|---|---|
| g. äuss. S. | 58 | | 61,5 | 58 | 62 | 60,5 | 62 | 59,5 | 63 | 60 | 63 |
| g. inn. S. | 38 | | 43,5 | 38 | 43,5 | 40,5 | 44 | 41 | 45 | 40 | 45 |
| l. D | 96 | 20 | 105 18 | 96 20 | 105,5 | 18,5 | 101 20 | 106 18 | 100,5 18,5 | 108 18 | 100 20 | 108 18 |
| l. lgD | 1,98227 | 1,30103 | | | 2,02325 | 1,26717 | | | 2,00217 | | | |
| l. t lgB | 9,84040 | 9,15916 | | | 9,88139 | 9,12531 | | | 9,86030 | | | |
| l cos t | 9,85821 | | | | 9,81207 | | 9,83569 | | 9,83810 | | 9,84048 | |
| l cos B | 9,99544 | | 366,31 | 366,31 | 9,99610 | | 9,99544 | 347,80 | 9,99610 | 350,27 | 9,99544 | 351,66 |
| cos t cos B | 2,56385 | | 332,20 | 329,89 | 2,51897 | | 2,54133 | 327,89 | 2,54440 | 318,99 | 2,54612 | 318,99 |
| Diff | | | + 34,11 | + 36,42 | | | | + 19,91 | | + 31,28 | | + 32,67 |

8. Mai 8. * Zellenrep N 5042 (8) südlich vom synonyma *a(9) beide oben beide unten

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g. äuss. S. | 55 | | 57 | 59 | | 57,5 | * Zelj 5042 (8) | | An *a (9) | | Zelj | 1875,5 |
| g. inn. S. | 35 | | 37 | 38 | | 36,5 | 13h 26 43,50 | 13h 39 57,50 | + 13m 14,00 | + 13,00 | α | 210° 32,41 |
| l. D | 90 | 20 | 94 20 | 97 | 21 | 94 21 | 26 43,50 | 39 57,50 | 14,00 | 10,42 | δ | −9 12,72 |
| l. lgD | 1,95424 | 1,30103 | 1,97313 | 1,98677 | 1,32222 | | 45 45,50 | 58 59,75 | 14,25 | 14,08 | t21 | 1,32222 |
| l. t lgB | 9,81237 | 9,15916 | 9,83126 | 9,84490 | 9,18035 | | 45 46,00 | 58 59,75 | 13,75 | 10,88 | l cos α | 9,93514 |
| l cos t | 9,88117 | | 9,86630 | 9,85398 | | 9,86630 | 14 16 46,50 | 14 29 30,50 | 14,00 | 8,38 | l sin | 1,30220 |
| l cos B | 9,99544 | 386,20 | 9,99544 | 9,99495 | 362,35 | 9,99495 | 16 46,50 | 29 30,50 | 14,00 | + 12,10 | l sin α | 9,70599 |
| a cos t cos B | 2,58681 | 373,20 | 2,57194 | 2,55913 | 372,77 | 2,57188 | 53 8,00 | 15 6 22,75 | 14,75 | Δδ | l sin δ | 9,20999 |
| Diff | | + 13,00 | | | + 10,42 | | 53 8,00 | 6 22,75 | 14,75 | | l sin δ sin δ | 0,21819 |
| | | beide unten | | | beide oben | | | | 8) 1,50 | | m | 46,838 |
| g. äuss. S. | 59 | | 57 | 58 | | 59,5 | | | + 13 14,187 | | n sin δ | + 1,6527 |
| g. inn. S. | 39 | | 37 | 38 | | 39,5 | * Zelj 5042 (8) | | | | | 47,7365 |
| l. D | 98 | 20 | 94 20 | 96 | 20 | 99 20 | | | Corr 0,023 | | | 21 |
| l. lgD | 1,99123 | | | 1,98227 | | 1,99564 | | | + 13 14,164 | Δα ; Δδ | | 954730 |
| l. t lgB | 9,84936 | | | 9,84040 | | 9,85377 | 1865,0 14h 1m 36,23 | | −9° 9′ 41,4 | | | 477365 |
| l cos t | 9,84961 | | | 9,85821 | | 9,84512 | + 1 6,831 | | −6 2,71 | | 21 Δα | + 1002,4665 |
| l cos B | 9,99544 | 359,12 | | 9,99544 | 366,31 | 9,99544 | 1886,0 14h 2 43,061 | | −9 15 44,11 | | i Zeit | + 66,831 |
| a cos t cos B | 2,55525 | 373,20 | | 2,56385 | 355,43 | 2,55076 | + 13 14,164 | | + 12,10 | | | |
| Diff | | + 14,08 | | | + 10,88 | | 1886,0 14h 15m 57,225 | | −9° 15 32,01 | | | |
| | | | | | | | 213° 59 18,37 | | | | | |
| δ Zelj (8) | −9° 15,7 | δ Synz a (9) | −9° 15,5 | | | | mikrometrisch geschätzter Ort des *a (9) | | | | | |
| cos δ | 9,99430 | cos δ | 9,99430 | | | | | | | | | |
| | 7,85813 | | 7,85813 | | | | | | | | | |

| | |
|---|---|
| l Δα cos δ | 2,55956 |
| Δδ | −362,71 |

# (258) Tyche.

## 1886 Mai 9.

*b(2,3) Yarnall 5904 2 Ast. 2 Diel
1860,0 $14^h\ 11^m\ 5{,}54$ $-8°\ 45'\ 38''{,}90$
$212°\ 46'\ 29{,}10$
$+20'\ 42{,}17$ $-7'\ 17{,}56$
b(3,3) 1886,0 $213°\ 7'\ 5{,}27$ $-8°\ 52'\ 56{,}46$
$+31{,}08$ $-5{,}18$
*b beob. Mai 9 $213°\ 7'\ 36{,}35$ $-8°\ 53'\ 1{,}64$
1886 Mai 9 $+52'\ 6{,}78$ $+58{,}31$
11h 36m 20,7 $213°\ 59'\ 43{,}13$ $-8°\ 52'\ 3{,}33$
* t. Dif. $14^h\ 15^m\ 58{,}88$
t. w. Par $+0^s{,}03$ $+3''{,}84$
Corr. d. hamb. Epl. $+0{,}14$ $+0{,}09$

1873,0
$\alpha$ $212°\ 56'{,}74$
$\delta$ $-8\ 49{,}29$
$\varphi$ 26 1.41497
$\varphi\cos\alpha$ 9.92386 n
$\varphi n$ 1.30220
$\varphi\sin\alpha$ 9.73588 n
$\varphi\cos\delta$ 9.99087 n
$\varphi\sin\alpha\cos\delta$ 0.22855
$m$ 46,0831
(11.12) 12h Mittel $n\sin\alpha\cos\delta$ $+1{,}6926$
$47{,}7757$
26
955514
286542
$26\,\Delta\alpha$ $+1242''{,}1682$

$\varphi\,26\,\Delta\delta$ 2.64104 n
$26\,\Delta\delta$ $-437''{,}56$
1886 Mai 9,5 $\varphi+\alpha$ $\pi+\alpha$
$\varphi+10{,}57$ $275°\ 55'$ $71°\ 30'$
$\varphi$ 1.0037 9.1886 n
$\varphi$ 62 48 9.0132 9.5015
$\varphi$ 24 1.2953 1.0037 1.2953
$\varphi$ 218 23 9.9977 n 9.9770
$\varphi i$ 0.7255 n 9.1939 n 0.0052
0.7255 n
$+10{,}57$ $-5{,}25$
$+1{,}57$ $+1{,}04$
$+18{,}94$ $-0{,}97$
$+31{,}08$ $-5{,}18$

*b(3,3) südlich von ☿ (258) 11.12 beide oben — beide oben

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| g. äuss. t. | 52 | | 59 | | 52 | | 59 | |
| g. inn. t. | 28 | | 37 | | 28 | | 38 | |
| t. D | 80 | 24 | 96 | 22 | 80 | 24 | 97 | 21 |
| $\varphi\,\varphi 2$ | 1.90309 | 1.38021 | 1.98227 | 1.34242 | | | 1.98677 | 1.32222 |
| $\varphi\sin A\,\varphi B$ | 9.76168 | 9.23880 | 9.84088 | 9.20103 | | | 9.84538 | 9.18083 |
| $\varphi\cos t$ | 9.91183 | | 9.85776 | | | | 9.85351 | |
| $\varphi\cos B$ | 9.99338 | 412,49 | 9.99445 | | 412,49 | | 9.99495 | |
| $\varphi\cos t\cos B$ | 2.61541 | 365,10 | 2.56241 | | 361,96 | | 2.55866 | |
| Diff | | +47,39 | | | +50,53 | | | |
| | | beide oben | | | beide unten | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| g. äuss. t. | 52,5 | | 61 | | 61 | | 55 | |
| g. inn. t. | 29,5 | | 39 | | 41 | | 30,5 | |
| t. D. | 82 | 23 | 100 | 22 | 102 | 20 | 85,5 | 24,5 |
| $\varphi\,\varphi 2$ | 1.91381 | 1.36173 | 2.00000 | | 2.00860 | 1.30103 | 1.93197 | 1.38917 |
| $\varphi\sin A\,\varphi B$ | 9.77240 | 9.22032 | 9.85861 | | 9.86719 | 9.15962 | 9.79058 | 9.24778 |
| $\varphi\cos t$ | 9.90626 | | 9.83996 | | 9.83020 | | 9.89577 | |
| $\varphi\cos B$ | 9.99393 | 407,75 | 9.99445 | | 9.99543 | 343,43 | 9.99309 | |
| $\varphi\cos t\cos B$ | 2.61039 | 350,44 | 2.54461 | | 2.53584 | 397,25 | 2.59906 | |
| Diff | | +57,31 | | | | +53,82 | | |
| | | beide unten | | | | beide unten | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| g. äuss. t. | 59,5 | | 55 | | 59 | | 53 | |
| g. inn. t. | 41 | | 31 | | 41 | | 29 | |
| t. D | 100,5 | 18,5 | 86 | 24 | 100 | 18 | 82 | 24 |
| $\varphi\,\varphi 2$ | 2.00217 | 1.26717 | 1.93450 | 1.38021 | 2.00000 | 1.25527 | 1.91381 | |
| $\varphi\sin A\,\varphi B$ | 9.86076 | 9.12576 | 9.79311 | 9.23882 | 9.85859 | 9.11386 | 9.77242 | |
| $\varphi\cos t$ | 9.83759 | | 9.89420 | | 9.83998 | | 9.90625 | |
| $\varphi\cos B$ | 9.99609 | 349,85 | 9.99338 | | 9.99630 | 351,95 | 9.99338 | |
| $\varphi\cos t\cos B$ | 2.54388 | 396,08 | 2.59778 | | 2.54648 | 407,22 | 2.60983 | |
| Diff | | +46,23 | | | | +55,27 | | |
| | | beide unten | | | | beide unten | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| g. äuss. t. | 58 | | 55 | | 58 | | 51 | |
| g. inn. t. | 39 | | 26 | | 39 | | 26 | |
| t. D | 97 | 19 | 77 | 25 | 97 | 19 | 77 | 25 |
| $\varphi\,\varphi 2$ | 1.98677 | 1.27875 | 1.88649 | 1.39794 | 1.98677 | 1.27875 | 1.88649 | 1.39794 |
| $\varphi\sin A\,\varphi B$ | 9.84536 | 9.13734 | 9.74510 | 9.25655 | 9.84536 | 9.13734 | 9.74510 | 9.25655 |
| $\varphi\cos t$ | 9.85353 | | 9.91969 | | 9.85353 | | 9.91969 | |
| $\varphi\cos B$ | 9.99588 | 362,75 | 9.99281 | | 9.99588 | 362,75 | 9.99281 | |
| $\varphi\cos t\cos B$ | 2.55961 | 419,47 | 2.62270 | | 2.55961 | 419,47 | 2.62270 | |
| Diff | | +56,72 | | | | +56,72 | | |
| | | beide unten | | | | beide unten | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| g. äuss. t. | 58 | 50 | | | 55,5 | | 63 | |
| g. inn. t. | 39 | 24 | | | 34,5 | zweimal | 45 | |
| t. D | 97 19 | 74 | 26 | | 90 | 21 | 108 | 18 |
| $\varphi\,\varphi D$ | | 1.86923 | 1.41497 | | 1.95424 | 1.32222 | 2.03342 | 1.25527 |
| $\varphi\sin A\,\varphi B$ | | 9.72784 | 9.27358 | | 9.81283 | 9.18081 | 9.89203 | 9.11388 |
| $\varphi\cos t$ | | 9.92699 | | | 9.88084 | | 9.79652 | |
| $\varphi\cos B$ | 362,75 | 9.99221 | | | 9.99495 | 385,47 | 9.99630 | |
| $\varphi\cos t\cos B$ | 425,99 | 2.62940 | | | 2.58599 | 318,44 | 2.50302 | zweimal! |
| Diff | +63,24 | | | | | +67,03 | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 56,5 | 64 | | | 64,5 | | 59,5 | |
| | 35,5 | 46 | | | 47,5 | | 36,5 | |
| | 92 21 | 110 | 18 | | 112 | 17 | 96 | 23 |
| | 1.96379 | 2.04139 | | | 2.04922 | 1.23045 | | 1.36107 |
| | 9.82238 | 9.90060 | | | 9.90781 | 9.08904 | | 9.22038 |
| | 9.87358 | 9.78354 | | | 9.76950 | | | 9.85776 |
| | 9.99495 | 9.99630 | | | 9.99670 | | | 9.99393 |
| | 2.57873 | 2.49004 | | | 2.47640 | 299,50 | | 2.56189 |
| | | | | | | 364,66 | | |
| | | | | | | +65,16 | | |

379,08
304,06
Diff +70,02

$\delta_z$ $-8°\ 53'$ $\delta_\odot$ $-8°\ 52'$
$\cos\delta$ 9.99476 9.99478
7.85859 7.85861

*b(3,3) (258) 11.12 $\Delta\alpha$ $\Delta\delta$

| | | | |
|---|---|---|---|
| | $14^h\ 1\ 37{,}00$ | $14^h\ 5\ 7{,}50$ | $+3^m\ 30{,}50$ $+47''{,}39$ |
| | 1 37,00 | 5 7,50 | 30,50 50,58 |
| | 10 24,00 | 13 53,50 | 29,50 37,31 |
| | 10 24,00 | 13 54,00 | 30,00 53,82 |
| | 15 54,75 | 19 24,50 | 29,75 46,23 |
| | 15 54,75 | 19 24,50 | 29,75 55,27 |
| | 24 8,50 | 27 37,50 | 29,00 56,72 |
| | 24 8,50 | 27 37,25 | 28,75 43,24 |
| | 32 23,75 | 35 52,50 | 28,75 67,03 |
| | 32 23,50 | 35 52,50 | 29,00 67,03 |
| | 38 10,50 | 41 39,50 | 29,00 70,02 |
| | 38 10,50 | 41 39,50 | 29,00 65,16 |
| | 57 18,00 | 15 0 45,50 | 27,50 699,75 |
| | 57 18,00 | 0 45,50 | 27,50 12) |
| | 15 5 25,00 | 8 53,00 | 28,00 $+58''{,}31$ |
| | 5 25,00 | 8 53,00 | 28,00 $\Delta\delta$ |
| | 16 9,75 | 19 37,50 | 27,75 |
| | 16 9,75 | 19 37,50 | 27,75 |
| | 21 35,75 | 25 3,00 | 27,25 |
| | 21 35,75 | 25 3,00 | 27,25 |
| | 31 16,25 | 34 44,00 | 27,75 |
| | 31 16,25 | 34 44,00 | 27,75 |
| | 41 35,25 | 45 1,75 | 26,50 |
| | 41 35,25 | 45 1,75 | 26,50 |
| | | 555 19,75 | 683,00 |
| | | +720 | 24) |
| | | 1275 19,75 | +3 28,458 |
| 24) | | $14^h\ 53\ 8{,}3$ | Corr 0,006 |
| | | −6 4,0 | |
| | | 14 47 4,2 | $+3^m\ 28{,}452$ $\Delta\alpha$ in Zeit |
| | | 3 8 49,12 | $+52'\ 6{,}78$ $\Delta\alpha$ in Bogen |
| | | 11 38 15,08 | |
| | | − 1 54,38 | |
| | | 11 36 20,70 | m. t. Dif. |

1886 Mai 14 an Tietjen, Krüger

* c von Dr Bolte's Hamburg neue Ephemeride (Brief v. 93)

## 1886 Mai 21.

* c (9) Lamont 3 Bd N 1626 (9.10)

1850,0 $14^h\ 1\ 8{,}83$ $-7°\ 17'\ 22''{,}80$

210 17 12,45

+ 28 26,40 — 10 21,93

* c Lamont 1886,0 $210°\ 45\ 38{,}85$ $-7°\ 27\ 44{,}73$

+ 30,58 — 5,16

* c (9) sch. Ort Mai 21 $210°\ 46'\ 9{,}43$ $-7°\ 27'\ 49''{,}89$

1886 Mai 21 +1 5 24,29 + 39,84

$10^h\ 43\ 12{,}3$ $211°\ 51\ 33{,}72$ $-7°\ 27'\ 10''{,}05$

$14^h\ 7\ 26{,}25$

m. Zt. Def

(258) 11,5 nur 3 Vergl mit * c (9)

1868,0

| | | | | | |
|---|---|---|---|---|---|
| α | 210° 31,43 | f 36 n cos α | 2.79374 n | | |
| δ | −7 22,56 | 36 Δδ | − 621,93 | | |
| f 36 | 1.55630 | 1886 Mai 21,5 | g + α | H + α | |
| f cos α | 9.93522 n | f | + 12,06 | 270° 53' | 57° 57' |
| f n | 1.30222 | f g | 1.0231 | | 9.1136 n |
| f sin α | 9.70577 n | g | 60 7 | 8.1880 | 9.7248 |
| f sin δ | 9.11210 n | g h | 1.3022 | 1.0231 | 1.3022 |
| f sin α sin δ | 0.12009 | H | 207 11 | 9.9999 n | 9.9282 |
| m | 46,0816 | f i | 0.5995 n | 9.1173 n | 0.0037 |
| n sin α sin δ | + 1,3185 | | | | 0.5995 n |
| | 47,4001 | | | + 12,06 | − 3,94 |
| | 36 | | | + 1,38 | + 0,16 |
| | 1422003 | | | + 17,14 | − 1,38 |
| | 2844006 | | | + 30,58 | − 5,16 |
| 36 Δα | + 1706,4036 | | | | |

* c (9) südlich von (258) 11,5 beide oben — beide oben — beide unten

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g. äuss. S. | 52,5 | | 53,5 | | 53 | | 57,5 | | | 61 | | 56 |
| g. inn. S. | 30 | | 38 | | 31 | | 39 | | | 43 | | 34 |
| S Σ | 82,5 | 22,5 | 93,5 | 17,5 | 84 | 22 | 96,5 | 18,3 | 104 | 18 | 90 | |
| f J f Σ | 1.91645 | 1.35218 | 1.97081 | 1.24304 | 1.92428 | 1.34242 | 1.98453 | 1.26717 | 2.01703 | 1.25527 | 1.95424 | |
| f sin f sin B | 9.77658 | 9.21231 | 9.83096 | 9.10319 | 9.78441 | 9.20255 | 9.84468 | 9.12732 | 9.87716 | 9.11540 | 9.81439 | |
| f cos δ | 9.90397 | | 9.86655 | | 9.89949 | | 9.85418 | | 9.81776 | | 9.87969 | |
| f cos B | 9.99415 | 405,81 | 9.99648 | | 9.99441 | 401,88 | 9.99606 | | 9.99628 | 334,38 | 9.99441 | |
| f cos δ cos B | 2.60832 | 37431 | 2.57323 | | 2.60410 | 36245 | 2.56044 | | 2.52424 | 383,97 | 2.58430 | |
| Diff | | + 31,50 | | | | + 38,43 | | | | + 49,59 | | |

Nach Dr Bolte's Mer. Kr. Beob. in Hamburg war der scheinbare Ort der * c (9) 1886 Mai 22,4

| | | | |
|---|---|---|---|
| * c (9) 1886 Mai 22 | $14^h\ 3^m\ 4{,}52$ | $-7°\ 27'\ 52''{,}90$ | |
| Zurückwärts auf 1886,0 | 210 46 7,80 | | |
| | − 30,57 | + 5,13 | |
| * c (9) Bolte 1886,0 | $210°\ 45\ 37{,}23$ | $-7°\ 27\ 47{,}77$ | |
| | $14^h\ 3^m\ 2{,}48$ | | |

| | | | |
|---|---|---|---|
| f | + 12,18 | 270° 40' | 57° 7' |
| g | 1.0245 | | 9.1137 n |
| g | 59 54 | 80658 | 9.7347 |
| h | 1.3027 | 1.0245 | 1.3027 |
| H | 206 21 | 0.0000 n | 9.9242 |
| i | 0.5874 n | 9.1174 n | 0.0037 |
| | + 12,18 | − 3,83 | 0.5874 n |
| | + 1,39 | + 0,12 | |
| | + 17,00 | − 1,42 | |
| | + 30,57 | − 5,13 | |

## 1886 Mai 22.

* d (8.9) Lamont 3 Bd N 1657

1850,0 $14^h\ 11\ 23{,}30$ $-7°\ 9'\ 6''{,}90$

$212°\ 50\ 49{,}50$

+ 28 28,98 — 10 4,92

* d (8.9) 1886,0 $213\ 19\ 18{,}48$ $-7\ 19\ 11{,}82$

+ 31,01 — 4,53

* d (8.9) Mai 22 $213°\ 19\ 49{,}49$ $-7°\ 19\ 16{,}35$

1886 Mai 22 −1 37 46,28 — 1 25,63

$11^h\ 3^m\ 35{,}0$ $211°\ 42'\ 3{,}21$ $-7°\ 20'\ 41{,}98$

m. Zt. Def $14^h\ 6\ 48{,}21$

(258) 11,5 Gr 8 Y. mit * d (8.9)

C.w. Par. + 0,05 + 3''{,}69

Corr. d. hamb. Eph. − 0,21 + 7,73

1868,0

| | | | | | |
|---|---|---|---|---|---|
| α | 213° 5,07 | f 36 n cos α | 2.78169 n | | |
| δ | −7 14,16 | 36 Δδ | − 604''92 | | |
| f 36 | 1.55630 | 1886 Mai 22,5 | g + α | H + α | |
| f cos α | 9.92317 n | f | + 12''19 | 273° 12' | 59° 35' |
| f n | 1.30222 | f g | 1.0247 | | 9.1052 n |
| f sin α | 9.73709 n | g | 59 53 | 8.7468 | 9.7041 |
| f sin δ | 9.10369 n | g h | 1.3027 | 1.0247 | 1.3027 |
| f sin α sin δ | 0.14300 | H | 206 16 | 9.9993 n | 9.9357 |
| m | 46,0816 | f i | 0.5861 n | 9.1088 n | 0.0036 |
| n sin α sin δ | + 1,3900 | | | | 0.5861 n |
| | 47,4716 | | | + 12,19 | − 3,82 |
| | 36 | | | + 1,36 | + 0,59 |
| | 1424148 | | | + 17,46 | − 1,30 |
| | 2848296 | | | + 31,01 | − 4,53 |
| 36 Δα | + 1708''9776 | | | | |

δ R − 7° 20,7 * d − 7° 19,3

f cos δ 9.99642 9.99644

7.86025 7.86027

wegen Coïncidenz nur 3 Vergl

* c (9) (258) (11,5) Δα

| | | | |
|---|---|---|---|
| $14^h\ 34^m\ 19{,}75^s$ | $14^h\ 38^m\ 41{,}25^s$ | + 4m 21,50 | |
| 34 20,00 | 38 41,00 | 21,00 | |
| 41 22,50 | 45 44,75 | 22,25 | |
| 41 22,50 | 45 44,50 | 22,00 | |
| 54 22,50 | 58 44,00 | 21,50 | 3) |
| 54 22,50 | 58 44,00 | 21,50 | |
| 286 | 19,50 | 9,75 | |
| 9) $14^h\ 47$ | 43,25 | 6) +4m 20,625 | |
| − 6 | 37,5 | Corr | 0,005 |
| $14^h\ 41$ | 5,75 | + 4m 21,619 | |
| 3 56 | 7,78 | | |
| 10 44 | 57,97 | +1m 5' 28,29 | |
| − 1 | 45,6 | | |
| $10^h\ 43\ 12{,}3$ | m. Zt. Def | | |

Neue Reduction der Tyche Beob 1886 Mai 21.

mit * c (9) nach Bolte 1886,0 $210°\ 45\ 37{,}23$ $-7°\ 27\ 47{,}77$

+ 30,58 — 5,16

* c (9) sch. Ort Mai 21 $210°\ 46\ 7{,}81$ $-7°\ 27\ 52{,}93$

1886 Mai 21 +1 5 24,29 + 39,84

$10^h\ 43\ 12{,}3$ $211°\ 51\ 32{,}10$ $-7°\ 27\ 13{,}09$

m. Zt. Def $14^h\ 7\ 26{,}14$ (258) Tyche (11,5)

C.w. Par. + 0,03 + 3''{,}71

Corr. d. hamb. Eph. − 0,05 − 0''40

(258) 11,5 * d (8.9) Δα

| | | | |
|---|---|---|---|
| $14^h\ 33\ 45{,}75^s$ | $14^h\ 40\ 46{,}00^s$ | − 6m 30,25 | |
| 33 45,75 | 40 46,00 | 30,25 | |
| 44 49,00 | 51 19,00 | 30,00 | |
| 44 49,00 | 51 19,00 | 30,00 | |
| 53 49,25 | 15 0 19,75 | 30,50 | |
| 53 49,00 | 0 19,50 | 30,50 | |
| 15 4 46,75 | 11 18,00 | 31,25 | |
| 4 46,75 | 11 18,00 | 31,25 | |
| 17 34,00 | 24 5,75 | 31,75 | |
| 17 34,00 | 24 5,50 | 31,50 | 9) |
| 27 16,50 | 33 47,50 | 31,00 | |
| 27 16,50 | 33 47,50 | 31,00 | |
| 41 38,00 | 48 10,00 | 32,00 | |
| 41 38,00 | 48 10,00 | 32,00 | |
| 52 23,00 | 59 55,25 | 32,25 | |
| 52 23,25 | 59 55,25 | 32,00 | |
| 554 4,50 | | 17,50 | |
| − 360 | | | |
| 194 4,50 | | 10) −6m 31,094 | |
| 16) $15^h\ 12\ 7{,}8$ | | Corr 0,008 | |
| − 6 39,4 | | −6m 31,085 | |
| $15^h\ 5\ 28{,}4$ | | −1° 37 46,28 | |
| 4 0 4,34 | | | |
| 11 5 24,06 | | | |
| − 1 49,01 | | | |
| $11^h\ 3^m\ 35{,}0$ | m. Zt. Def | | |

1886 Mai 22. Fortsetzung.

(258) 11,5 Gr. südlich von * d(8,9) beide oben

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g. äuss. S. | 52,5 | | 64 | | 53 | beide oben | 64 | | 54,5 | beide oben | 63,5 | |
| g. inn. S. | 31,5 | | 46 | | 32 | | 46 | | 34 | | 47 | |
| S. D | 84 | 21 | 110 | 18 | 85 | 21 | 110 | 18 | 88,5 | 20,5 | 110,5 | 16,5 |
| g S gD | 1.92428 | 1.32222 | 2.04139 | 1.25527 | 1.92942 | | | | 1.94694 | 1.31175 | 2.04336 | 1.21748 |
| g. A g. B | 9.78453 | 9.18247 | 9.90166 | 9.11554 | 9.78967 | | | | 9.80719 | 9.17200 | 9.90363 | 9.07775 |
| g cos δ | 9.89942 | | 9.78067 | | 9.89633 | | | | 9.88487 | | 9.77720 | |
| g sin B | 9.99491 | 402,28 | 9.99627 | | 9.99491 | 399,43 | | | 9.99515 | 389,25 | 9.99687 | |
| g cos δ cos B | 2.60453 | 307,00 | 2.48714 | | 2.60144 | 307,00 | | | 2.59022 | 304,98 | 2.48427 | |
| Diff | | − 95,28 | | | | − 92,43 | | | | − 84,27 | | |
| | | beide unten | | | | beide unten | | | | beide unten | | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g. äuss. S. | 62,5 | | 52 | | 62 | | 51,5 | | 61 | | 51 | |
| g. inn. S. | 46,5 | | 30 | | 44 | | 29 | | 43 | | 28 | |
| S. D | 109 | 16 | 82 | 22 | 106 | 18 | 80,5 | 22,5 | 104 | 18 | 79 | 23 |
| g S gD | 2.03743 | 1.20412 | 1.91381 | 1.34242 | 2.02531 | 1.25527 | 1.90580 | 1.35218 | 2.01703 | | 1.89763 | 1.36173 |
| g. A g. B | 9.89768 | 9.06437 | 9.77408 | 9.20269 | 9.88556 | 9.11552 | 9.76607 | 9.21245 | 9.87728 | | 9.75790 | 9.22200 |
| g cos δ | 9.78744 | | 9.90535 | | 9.80619 | | 9.90960 | | 9.81760 | | 9.91370 | |
| g sin B | 9.99706 | 312,39 | 9.99441 | | 9.99627 | 325,58 | 9.99415 | | 9.99627 | 334,25 | 9.99388 | |
| g cos δ cos B | 2.49470 | 407,35 | 2.60996 | | 2.51266 | 411,10 | 2.61395 | | 2.52407 | 414,75 | 2.61778 | |
| Diff | | − 94,96 | | | | − 85,52 | | | | − 80,50 | | |
| | | beide unten | | | | beide oben | | | | | | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g. äuss. S. | 60 | | 50 | | 56 | | 62,5 | | | | | |
| g. inn. S. | 42 | | 26 | | 33,5 | | 46,5 | | | | | |
| S. D | 102 | 18 | 76 | 24 | 89,5 | 22,5 | 109 | 16 | | | | |
| g S gD | 2.00860 | | 1.88081 | 1.38021 | 1.95182 | 1.35218 | 1.03743 | 1.20412 | | | | |
| g. A g. B | 9.86885 | | 9.74108 | 9.24048 | 9.81207 | 9.21243 | 8.89770 | 9.06439 | | | | |
| g cos δ | 9.82822 | | 9.92146 | | 9.88139 | | 9.73741 | | | | | |
| g sin B | 9.99627 | 342,52 | 9.99293 | | 9.99415 | 385,25 | 9.99706 | | | | | |
| g cos δ cos B | 2.33469 | 421,69 | 2.62499 | | 2.58574 | 312,37 | 2.49467 | | | | | |
| Diff | | − 79,17 | | | | − 72,88 | | | | | | |

(258) schw. 11,5 * e(9)

| | | Δα | Δδ |
|---|---|---|---|
| 15h 39 | 13,50 | 15h 40 42,50 | −1m 29,00 | + 85,05 |
| 39 | 13,50 | 40 42,50 | 29,00 | 81,82 |
| 42 | 46,75 | 44 16,25 | 29,50 | 85,30 |
| 42 | 46,75 | 44 16,25 | 29,50 | 102,83 |
| 46 | 26,75 | 47 56,50 | 29,75 | 106,28 |
| 46 | 26,75 | 47 56,50 | 29,75 | 98,24 |
| 53 | 42,25 | 55 13,75 | 31,50 | 559,52 |
| 53 | 42,25 | 55 13,25 | 31,00 | |
| 16 1 | 17,00 | 16 2 46,50 | 29,50 | b) + 93,25 |
| 1 | 17,00 | 2 46,25 | 29,25 | + 1' 33,25 |
| 5 | 28,50 | 6 58,50 | 30,00 | Δδ |
| 5 | 28,50 | 6 58,50 | 30,00 | |
| 377 | 49,50 | | 117,75 | |
| + 240 | | | a) | |
| 617 | 49,50 | | − 1 29,812 | |
| 12) 15h 51 | 29,1 | | Corr 0,003 | |
| − 6 | 59,9 | | − 1m 29,809 | Δα : Zeit |
| 15h 44 | 29,2 | | − 22' 27,14 | Δα : Bogen |
| 4 31 | 36,79 | | | |
| 11 12 | 52,41 | | | |
| − 1 | 50,23 | | | |
| 11 11 | 2,2 | | | |

12) 11h 11m 2,2 m Z. Dst.

1886 Mai 30.

* e(9) Stjellungs № 5048

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1875,5 | 14h 2 | 51,65 | − 6° 31' | 5,60 | α | 210° 51,18 | 21 cos α | 2.55816 n | | | |
| | 210° 42 | 54,75 | | | δ | − 6° 34,11 | 21 Δδ | − 361,54 | | | |
| | + 16 | 32,63 | − 6 | 1,54 | g 21 | 1.32222 | 1886 Mai 30,5 | g + α | 268° 58' | 50 1' | |
| * e(9) 1886,0 | 210° 59 | 27,38 | − 6° 37' | 7,14 | g cos α | 9.99373 n | f | + 13,27 | g 1.0377 | | 9.0617 n |
| | + 30,16 | | − 4,55 | | g n | 1.30220 n | g | 57 59 | 8.2561 n | 9.8079 | |
| * e(9) Mai 30 | 210° 59 | 57,54 | − 6° 37' | 11,69 | g sin Δδ | 9.06125 n | g 1 | 1.3062 | 1.0377 | 1.3062 | |
| 1886 Mai 30 | − 22 | 27,14 | + 1 | 33,25 | g sin Δδ | 0.07343 n | M | 199 2 | 9.9999 n | 9.8844 | |
| 11h 11m 2,2 | 210° 37 | 30,40 | − 6° 35 | 38,44 | m | 46,0838 | g l | 0.4572 n | 9.0646 n | 0.0029 | |
| m. Z. Dst. | 14h 2 | 30,03 | (258) 11,5 | 6' N mit * e(9) | m sin Δδ | + 1,1842 | | | | 0.4572 n | |
| | Corr. w. Ths | + 0,08 | + 3,35 | | | 47,2680 | | | + 13,27 | − 2,35 | |
| Corr. d. Aberr. Eps. | | + 0,22 | + 9,68 | | | 21 | | | + 1,27 | − 0,20 | |
| | | | | | | 94536 | | | + 15,62 | − 1,50 | |
| | | | | | | 47268 | | | + 30,16 | − 4,55 | |
| | | | | | 21 Δα | + 992,628 | | | | | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Dδ − 6° 35,6 | * δ − 6° 37,2 | | |
| | | | | | | | | | 9.99712 | 9.99710 | | |
| | | | | | | | | | 7.86095 | 7.86093 | | |

(258) schw. 11,5 nördlich vom * e(9) beide oben

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g. äuss. S. | 65 | | 57 | | 65,5 | beide oben | 57,5 | | 65,5 | beide oben | 57 | |
| g. inn. S. | 49 | | 37 | | 48,5 | | 37,5 | | 48,5 | | 37 | |
| S. D | 114 | 16 | 94 | 20 | 114 | 17 | 95 | 20 | 114 | 17 | 94 | 20 |
| g S gD | 2.05690 | 1.20412 | 1.97313 | 1.30103 | | 1.23045 | 1.97772 | | | | | |
| g. A g. B | 9.91786 | 9.06507 | 9.83406 | 9.16196 | | 9.09140 | 9.83865 | | | | | |
| g cos δ | 9.74915 | | 9.86388 | | 9.74915 | | 9.85980 | | | | | |
| g sin B | 9.99705 | 286,02 | 9.99537 | | 9.99667 | 285,77 | 9.99537 | | | 285,77 | | |
| g cos δ cos B | 2.45640 | 371,07 | 2.56945 | | 2.45602 | 367,59 | 2.56537 | | | 371,07 | | |
| Diff | | + 85,05 | | | | + 81,82 | | | | + 85,30 | | |
| | | beide unten | | | | beide unten | | | | beide unten | | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g. äuss. S. | 56,5 | | 66,5 | | 56 | | 67 | | 55 | | 65 | |
| g. inn. S. | 35,5 | | 49,5 | | 36 | | 49,5 | | 35 | | 49 | |
| S. D | 92 | 21 | 116 | 17 | 92 | 20 | 116,5 | 17,5 | 90 | 20 | 114 | 16 |
| g S gD | 1.96379 | 1.32222 | 2.06446 | 1.23045 | | 1.30103 | 2.06633 | 1.24304 | 1.95424 | | 2.05690 | 1.20412 |
| g. A g. B | 9.82474 | 9.18317 | 9.92539 | 9.09138 | | 9.16198 | 9.92726 | 9.10397 | 9.81519 | | 9.91783 | 9.06505 |
| g cos δ | 9.87170 | | 9.73178 | | 9.87170 | | 9.72715 | | 9.87909 | | 9.74920 | |
| g sin B | 9.99490 | 377,40 | 9.99667 | | 9.99537 | 377,81 | 9.99647 | | 9.99537 | 384,29 | 9.99705 | |
| g cos δ cos B | 2.57680 | 274,57 | 2.78865 | | 2.57727 | 271,53 | 2.43382 | | 2.58466 | 286,05 | 2.45645 | |
| Diff | | + 102,83 | | | | + 106,28 | | | | + 98,24 | | |

## 1886 Mai 31.

f(8.9) Schjellerup № 5067 (9)
1865,0 $14^h\ 7^m\ 10{,}390 - 6°\ 25'\ 21{,}60$
$211°\ 47'\ 35{,}85$
$+\ 16\ \ 33{,}03 \quad -\ 5\ \ 57{,}42$
(8.9) 1886,0 $212°\ 4'\ 8{,}88 - 6°\ 31'\ 19{,}02$
$+\ 30{,}32 \quad -\ 4{,}23$
(8.9) ord Ort Mai 31 $212°\ 4'\ 39{,}20 - 6°\ 21'\ 23{,}25$
1886 Mai 31 $-1\ 33\ 59{,}84 \quad +\ 39{,}24$
$\Delta$ $26^m\ 19{,}9$ $210°\ 30'\ 39{,}36 - 6°\ 30'\ 44{,}01$
Dif. $14'\ 2\ 2{,}62$

(258) 11,5 8 V. mid * f (8.9)
Cw. Par. + 0,09 + 3,53
r.d. hamb. Ephemeride + 0,13 + 5,85

(258) (11,5) nördlich vom * f(8.9) beide unten

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| g. äuss. S. | 57 | | 60,5 | | 56,5 | | 60 | |
| g. inn. S. | 36,5 | | 42 | | 36,5 | | 42 | |
| S. D | 93,5 | 20,5 | 102,5 | 18,5 | 93 | 20 | 102 | 18 |
| log D | 1.97081 | 1.31175 | 2.01072 | 1.26717 | 1.96848 | 1.30103 | 2.00860 | 1.25527 |
| - log B | 9.83182 | 9.17276 | 9.87173 | 9.12818 | 9.82949 | 9.16204 | 9.86961 | 9.11628 |
| log cos $\delta$ | 9.86582 | | 9.82470 | | 9.86779 | | 9.82730 | |
| log cos B | 9.99514 | 372,53 | 9.99605 | | 9.99537 | 374,42 | 9.99626 | |
| log cos $\delta$ cos B | 2.57116 | 339,58 | 2.53095 | | 2.57336 | 341,79 | 2.53376 | |
| Diff | | + 32,95 | | | | + 32,63 | | |
| | | beide oben | | | | beide oben | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| g. äuss. S. | 58 | | 58,5 | | 59,5 | | 53,5 | |
| g. inn. S. | 38 | | 33 | | 40 | | 33,5 | |
| S. D | 96 | 20 | 86,5 | 20,5 | 99,5 | 19,5 | 87 | 20 |
| log D | 1.98227 | | 1.93702 | | 1.99782 | 1.29003 | 1.93952 | |
| - log B | 9.84328 | | 9.79803 | | 9.85883 | 9.15104 | 9.80053 | |
| log cos $\delta$ | 9.85553 | | 9.89105 | | 9.83972 | | 9.88941 | |
| log cos B | 9.99537 | 364,00 | 9.99514 | | 9.99560 | 351,17 | 9.99537 | |
| log cos $\delta$ cos B | 2.56110 | 394,81 | 2.59639 | | 2.54552 | 393,53 | 2.59498 | |
| Diff | | + 30,81 | | | | + 42,36 | | |
| | | beide unten | | | | beide unten | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| g. äuss. S. | 53 | | 57,5 | | 51 | | 58 | |
| g. inn. S. | 31,5 | | 39 | | 29,5 | | 40 | |
| S. D | 84,5 | 21,5 | 96,5 | 18,5 | 80,5 | 21,5 | 98 | 18 |
| log D | 1.92684 | 1.33244 | 1.98453 | 1.26717 | 1.90580 | | 1.99123 | |
| - log B | 9.78787 | 9.19345 | 9.84554 | 9.12818 | 9.76681 | | 9.85224 | |
| log cos $\delta$ | 9.89743 | | 9.85336 | | 9.90922 | | 9.84670 | |
| log cos B | 9.99464 | 400,19 | 9.99605 | | 9.99464 | 411,21 | 9.99626 | |
| log cos $\delta$ cos B | 2.60227 | 362,75 | 2.55961 | | 2.61406 | 357,41 | 2.55316 | |
| Diff | | + 37,44 | | | | + 53,80 | | |

| (258) 11,5 | * f (8.9) | $\Delta\alpha$ | $\Delta\delta$ |
|---|---|---|---|
| $15^h\ 33\ 32{,}00$ | $15^h\ 40\ 7{,}25$ | $-\ 6^m\ 15{,}25$ | $+32''{,}95$ |
| 33 51,75 | 40 7,00 | 15,25 | 32,63 |
| 43 48,75 | 50 4,00 | 15,25 | 30,81 |
| 43 48,75 | 50 4,00 | 15,25 | 42,36 |
| 57 46,00 | 16 4 1,75 | 15,75 | 40,13 |
| 57 46,00 | 4 1,50 | 15,50 | 37,44 |
| 16 7 31,75 | 13 47,75 | 16,00 | 52,80 |
| 7 32,00 | 13 47,75 | 15,75 | 43,77 |
| 16 1,00 | 22 17,00 | 16,00 | 313,89 |
| 16 1,00 | 22 16,75 | 15,75 | 8) |
| 26 13,50 | 32 30,75 | 17,25 | $+39''{,}24$ |
| 26 13,25 | 32 30,50 | 17,25 | $\Delta\delta$ |
| 34 56,50 | 41 13,00 | 16,50 | |
| 34 56,25 | 41 13,00 | 16,75 | |
| 46 17,50 | 52 33,75 | 16,25 | |
| 46 17,50 | 52 33,75 | 16,25 | |
| 532 53,50 | | 1,00 | |
| -360 | | | |
| 172 53,50 | | | |
| $16^h\ 10\ 48{,}34$ | | | |
| $-\ 7\ \ 24$ | | | |
| 16 3 45,94 | | | |
| 4 35 33,34 | | | |
| 11 28 12,60 | | | |
| $-\ 1\ 52{,}74$ | | | |

$11^h\ 26^m\ 19{,}9$ m 24 Dof. beide oben

8) $-6\ 16{,}000$
Corr. 0,011
$-6\ 15{,}989$ $\Delta\alpha$ = Zeit
$-1°\ 33'\ 59{,}84$ $\Delta\alpha$ = Bogen

Bei 8 III wurde (258) Tyche nach der hamburger Berechnung 1887 Juli 13 in Hamburg aufgefunden und Juli 18 zuerst in Hamburg beobachtet, Juli 21 in Düsseldorf.

## 1887 Juli 21.

a(7) Glasgow № 6067 3 Rst, 3 Del
1870,0 $22^h\ 59\ 4{,}66 + 14°\ 15\ 29{,}22$
$344°\ 46\ 9{,}90$
$+\ 12\ 40{,}76 \quad +\ 5\ 29{,}11$
m Ort 1887,0 $344°\ 58'\ 50{,}66 + 14°\ 20'\ 58{,}33$
$+\ 31{,}21 \quad +\ 8{,}75$
a scheinb. Ort Juli 21 $344°\ 59'\ 21{,}87 + 14°\ 21'\ 7{,}08$
1887 Juli 21 $+\ 19\ 5{,}84 \quad -\ 1\ 50{,}43$
$\Delta$ 40 46,4 $345°\ 18'\ 27{,}71 + 14°\ 19'\ 16{,}65$
Dif. Dof. $23^h\ 1^m\ 13{,}85$ (258) Tyche (10,8) 10 V.
Corr. Par. -0,16 +3,99
Corr. Ephem. 300 $-2^m\ 21{,}8 \quad -5{,}0$

| | | | | | |
|---|---|---|---|---|---|
| 1878,5 | | f 17 | n cos $\alpha$ | 2.51734 | |
| $\alpha$ | $344°\ 52'{,}50$ | 17 $\Delta\delta$ | | $+329''{,}11$ | |
| $\delta$ | $+14\ 18{,}23$ | 1887 Juli 21,5 | | g + $\alpha$ | M + $\alpha$ |
| f 17 | 1.23045 | f | $+16{,}07$ | $31°\ 23'$ | $138°\ 14'$ |
| log cos $\alpha$ | 9.98469 | g g | 1.0067 | | 9.3942 |
| log n | 1.30220 | g | 46 24 | 9.9313 | 9.3727 n |
| log f $\alpha$ | 9.41651 n | g h | 1.3024 | 1.0067 | 1.3024 |
| log f g $\delta$ | 9.40648 | M | 153 15 | 9.7166 | 9.8235 - |
| log f g h $\Delta\delta$ | 0.12519 n | g i | 0.5927 | 9.4079 | 0.0138 |
| m | 46,0847 | | | | 0.5927 |
| n f $\alpha$ g $\Delta\delta$ | -1,3341 | | | +16,07 | + 3,79 |
| | 44,7506 | | | + 1,35 | + 8,67 |
| | 17 | | | +13,79 | - 3,71 |
| | 447506 | | | + 31,21 | + 8,75 |
| | 3132542 | | | | |

$17\Delta\alpha + 760''{,}7602$

* a(7) nördlich von (258) Tyche (10,8) beide oben

| | | | |
|---|---|---|---|
| g. äuss. S. | 69 | | 57 |
| g. inn. S. | 53 | | 35 |
| S. D | 122 | 16 | 92 | 22 |
| log f g D | 2.08636 | 1.20412 | 1.96379 | 1.34242 |
| - log f g h B | 9.93642 | 9.05418 | 9.81392 | 9.19255 |
| log cos $\delta$ | 9.70227 | | 9.88003 | |
| log cos B | 9.99719 | 256,84 | 9.99466 | |
| log cos $\delta$ cos B | 2.40966 | 384,49 | 2.58489 | |
| Diff | | - 127,65 | | |

| | | |
|---|---|---|
| * a + 14° 21,1 | T + 14° 19,2 | |
| cos $\delta$ 9.98623 | 9.98630 | |
| 7.85006 | 7.85013 | |

## 1887 Juli 21 Fortsetzung.

*a(7) nördlich von (258) Tyche (10,8) beide oben

| | | | |
|---|---|---|---|
| g. äuss. S. | 69 | 58,5 | |
| g. inn. S. | 53 | 37 | |
| S.D | 122 16 | 95,5 | 21,5 |
| g S gD | | 1.98000 | 1.33244 |
| g S.t gS B | | 9.83013 | 9.18257 |
| g cos δ | | 9.86725 | |
| g cos B | 256,84 | 9.99491 | |
| g cos δ cos B | 378,56 | 2.57236 | |
| Diff | −116,72 | | |

beide oben

| | | | | |
|---|---|---|---|---|
| | 69 | 56,5 | | |
| | 53 | 35,5 | | |
| | 122 16 | 92 | 21 | |
| | | | 1.32222 | |
| | | | 9.17235 | |
| | | 9.88003 | | |
| | 256,84 | 9.99515 | | |
| | 384,93 | 2.58538 | | |
| | −128,09 | | | |

beide oben

| | | | |
|---|---|---|---|
| | 69 | 59,5 | |
| | 53 | 38,5 | |
| | 122 16 | 98 21 | |
| | | 1.99123 | |
| | | 9.84136 | |
| | | 9.85732 | |
| | 256,84 | 9.99515 | |
| | 365,32 | 2.56267 | |
| | −108,48 | | |

beide oben

| | | | | |
|---|---|---|---|---|
| g äuss. S. | 69 | 59 | 54 | |
| g inn. S. | 53 | 38 | 32 | |
| S.D | 122 16 | 97 21 | 86 | 22 |
| g S gD | | 1.98677 | 1.93450 | 1.34242 |
| g S.t gS B | | 9.83690 | 9.78456 | 9.19248 |
| g cos δ | | 9.86138 | 9.89940 | |
| g cos B | 256,84 | 9.99515 | 9.99467 | |
| g cos δ cos B | 368,75 | 2.56673 | 2.60427 | |
| Diff | −111,91 | | | |

beide unten

| | | | | |
|---|---|---|---|---|
| | | 67 | | |
| | | 49 | | |
| | 116 | 2.06446 | 1.25527 | |
| | 9.91459 | 9.10540 | | |
| | 9.75607 | | | |
| | 402,04 | 9.99644 | | |
| | 290,21 | 2.46271 | | |
| | −111,83 | | | |

beide unten

| | | | |
|---|---|---|---|
| | 52 | 67 | |
| | 30 | 49 | |
| | 82 22 | 116 18 | |
| | 1.91381 | | |
| | 9.76387 | | |
| | 9.91073 | | |
| | 9.99467 | 412,67 | |
| | 2.61560 | 290,21 | |
| | | −122,46 | |

beide unten

| | | | | |
|---|---|---|---|---|
| g äuss. S. | 52,5 | | 66 | |
| g inn. S. | 29,5 | | 48 | |
| S.D | 82 | 23 | 114 | 18 |
| g S gD | | 1.36173 | 2.05690 | |
| g S.t gS B | | 9.21179 | 9.90703 | |
| g cos δ | 9.91073 | | 9.77097 | |
| g cos B | 9.99416 | 412,18 | 9.99644 | |
| g cos δ cos B | 2.61509 | 300,34 | 2.47761 | |
| Diff | | −111,84 | | |

beide unten

| | | | | |
|---|---|---|---|---|
| | 50,5 | 66 | | |
| | 28,5 | 48 | | |
| | 79 22 | 114 18 | | |
| | 1.89763 | | | |
| | 9.74769 | | | |
| | 9.91851 | | | |
| | 9.99467 | 420,13 | | |
| | 2.62338 | 300,34 | | |
| | | −119,79 | | |

beide unten

| | | | | |
|---|---|---|---|---|
| | 49,5 | 63,5 | | |
| | 27,5 | 46,5 | | |
| | 77 22 | 110 | 17 | |
| | 1.88649 | 2.04139 | 1.23045 | |
| | 9.73655 | 9.89152 | 9.08058 | |
| | 9.92341 | 9.79731 | | |
| | 9.99467 | 9.99683 | 424,89 | |
| | 2.62828 | 2.50434 | 319,41 | |
| | | | −105,48 | |

1887 Juli 21

| *a(7) | (258) Tyche (10,8) | Δα | Δδ |
|---|---|---|---|
| 20h 15 53,50 | 20h 17 9,50 | +1m 16,00 | −127,"63 |
| 15 53,50 | 17 9,50 | 16,00 | 116,72 |
| 19 14,50 | 20 30,25 | 15,75 | 128,09 |
| 19 14,50 | 20 30,50 | 16,00 | 108,48 |
| 22 34,50 | 23 50,25 | 15,75 | 111,91 |
| 22 34,50 | 23 50,25 | 15,75 | 111,83 |
| 26 20,50 | 27 36,75 | 16,25 | 122,46 |
| 26 20,50 | 27 36,75 | 16,25 | 111,84 |
| 29 46,50 | 31 3,00 | 16,50 | 119,79 |
| 29 46,50 | 31 3,00 | 16,50 | 105,48 |
| 41 15,00 | 42 31,50 | 16,50 | 164,25 |
| 41 15,00 | 42 31,50 | 16,50 | 10) |
| 44 55,00 | 46 11,50 | 16,50 | −116,"43 |
| 44 55,00 | 46 11,50 | 16,50 | −1′ 56,"43 |
| 53 49,25 | 55 6,00 | 16,75 | Δδ |
| 53 49,25 | 55 6,00 | 16,75 | |
| 59 13,25 | 21 0 30,00 | 16,75 | |
| 59 13,25 | 0 30,00 | 16,75 | |
| 9 44,75 | 11 1,75 | 17,00 | |
| 9 44,75 | 11 1,75 | 17,00 | |
| 551 | 1,25 | 7,75 | |
| 240 | | | |
| 791 | 1,25 | 20) | |
| 20h 39 | 33,6 | +1′ 16,"387 | |
| | −1 2,1 | Corr. + 0,002 | |
| 20h 38 | 31,5 | +1m 16,"389 | Δα: Zeit |
| 7 55 | 40,13 | | |
| 12 42 | 51,37 | +19′ 5,"84 | Δα: Bogen |
| | −2 4,97 | | |
| 12h 40 | 46,4 | m. Zt. Dkf | |

## 1887 Juli 24.

*b(9,2) Prümers N 10881

| | | | |
|---|---|---|---|
| 1896,0 | 23h 4 3,998 | +14° 14 36,28 | |
| | 346° 0 59,97 | | |
| | +38 8,11 | + 16 39,87 | |
| b(9,2) 1887,0 | 346° 39′ 8,"08 | +14° 31′ 10,"15 | |
| | + 31,93 | + 9,12 | |
| *b Juli 24 | 346° 39′ 40,01 | +14° 31′ 19,27 | |
| 1887 Juli 24 | −1 14 22,39 | + 45,51 | |
| 11h 45 47,0 | 345° 25′ 17,"62 | +14° 32′ 4,"78 | |
| m. Zt. Dkf | 23h 1 41,17 | (258) Tyche (10,8) 8V mid *b (9,2) | |
| | Corr. w. Par. −0,20 | + 4,"20 | |

1861,5

| | | | |
|---|---|---|---|
| α | 346° 20,07 | 51 n cos α | 2.99733 |
| δ | +14 22,89 | 51 Δδ | +993,"87 |
| 1887 Juli 24,5 | | | |
| 51 | 1.70757 | f | +16,"47 |
| 51 cos α | 9.98753 | f g | 1.0098 |
| 51 n | 1.30223 | g | 45 26 |
| 51 f α | 9.37337 | n g | 1.3008 |
| 51 g δ | 9.40894 | N | 150 30 |
| 51 f α g δ | 0.08454 | n f | 0.6293 |
| m | 46,0798 | | |
| n f α g δ | −1,2149 | | |
| | 44,8649 | | |
| | 51 | | |
| | 2243245 | | |
| | 448649 | | |
| 51 Δα | +2288,"1099 | | |

| | | |
|---|---|---|
| | ☉+α | ☾+α |
| | 32° 5′ | 137° 9′ |
| | | 9.3992 |
| 9.9280 | | 9.8652 n |
| 1.0098 | | 1.3008 |
| 9.7252 | | 9.8326 |
| 9.4133 | | 0.0141 |
| | | 0.6293 |
| +16,"47 | | + 4,"12 |
| + 1,41 | | + 8,67 |
| +14,05 | | − 3,67 |
| +31,93 | | + 9,12 |
| I +14° 32,1 | | ☾+α +14° 31,3 |
| 9.98588 | | 9.98590 |
| 7.84971 | | 7.84973 |

1887 Juli 24.

| (258) Tyche (10,8) | *b (9,2) | Δα | Δδ |
|---|---|---|---|
| 19h 24 10,50 | 19h 29 8,00 | −4m 57,50 | +38,"777 |
| 24 10,25 | 29 8,00 | 57,75 | 45,11 |
| 31 14,75 | 36 12,25 | 57,50 | 44,78 |
| 31 14,75 | 36 12,25 | 57,50 | 42,75 |
| 39 48,50 | 44 46,00 | 57,50 | 50,75 |
| 39 48,50 | 44 46,00 | 57,50 | 47,81 |
| 50 15,75 | 55 13,50 | 57,75 | 48,22 |
| 50 15,75 | 55 13,50 | 57,75 | 45,92 |
| 58 24,75 | 20 3 22,00 | 57,25 | 44,11 |
| 58 24,75 | 3 22,00 | 57,25 | 8) |
| 20 12 2,50 | 17 0,00 | 57,50 | +45,"51 |
| 12 2,50 | 17 0,00 | 57,50 | Δδ |
| 21 11,00 | 26 8,25 | 57,25 | |
| 21 11,00 | 26 8,50 | 57,50 | |
| 32 11,75 | 37 9,25 | 57,50 | |
| 32 11,75 | 37 9,00 | 57,25 | |
| 538 38,75 | | 7,75 | |
| +360 = 898 | | 9) | |
| 16) 19h 56 9,9 | | −4 57,484 | |
| 57,2 | | Corr. −0,008 | |
| 19h 55 12,7 | | −4m 57,492 | Δα: Zeit |
| 8 7 29,80 | | −1° 14′ 22,39 | Δα: Bogen |
| 11 47 42,90 | | | |
| −1 55,93 | | | |
| 11h 45 47,0 | m. Zt. Dkf | | |

(258) Tyche (10,8) nördlich vom *b (9,2) beide unten

| | | | | |
|---|---|---|---|---|
| g. äuss. S. | 56 | | 61 | |
| g. inn. S. | 35,5 | | 42 | |
| S.D | 91,5 | 20,5 | 103 | 19 |
| g S gD | 1.96142 | 1.31175 | 2.01284 | 1.27875 |
| g S.t gS B | 9.81113 | 9.16146 | 9.86257 | 9.12848 |
| g cos δ | 9.88207 | | 9.83556 | |
| g cos B | 9.99538 | 386,95 | 9.99604 | |
| g cos δ cos B | 2.58765 | 348,18 | 2.54180 | |
| Diff | | + 38,77 | | |

beide unten

| | | | | |
|---|---|---|---|---|
| | 54,5 | | 60,5 | |
| | 33,5 | | 41,5 | |
| | 88 | 21 | 102 | 19 |
| | 1.94448 | 1.32222 | 2.00860 | |
| | 9.79419 | 9.17193 | 9.85833 | |
| | 9.89352 | | 9.84026 | |
| | 9.99516 | 397,08 | 9.99604 | |
| | 2.59888 | 351,97 | 2.54650 | |
| | | + 45,11 | | |

beide unten

| | | | | |
|---|---|---|---|---|
| | 53 | | 59 | |
| | 31 | | 40 | |
| | 84 | 22 | 99 | 19 |
| | 1.92428 | 1.34242 | 1.99564 | |
| | 9.77399 | 9.19213 | 9.84537 | |
| | 9.90540 | | 9.85352 | |
| | 9.99468 | 407,65 | 9.99604 | |
| | 2.61028 | 362,87 | 2.55976 | |
| | | + 44,78 | | |

beide oben

| | | | | |
|---|---|---|---|---|
| | 55,5 | | 49 | |
| | 34,5 | | 23 | |
| | 90 | 21 | 72 | 26 |
| | 1.95424 | 1.35733 | 1.85733 | 1.41497 |
| | 9.80395 | 9.70706 | 9.26470 | |
| | 9.88710 | 9.93477 | | |
| | 9.99516 | 9.99252 | 391,25 | |
| | 2.59246 | 2.63749 | 434,00 | |
| | | | + 42,75 | |

## 1887 Juli 24 Fortsetzung.

(258) Tycke (10,8) nördlich vom * b (9,2) beide oben

| | | | beide oben | | | | beide oben | | | | beide unten | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g. äuss. S. | 57,5 | 50 | 59 | 59 | | 60 | 54,5 | | | 55,5 | 60,5 | |
| g. inn. S. | 36,5 | 24 | 39 | 28 | | 40 | 29 | | | 32,5 | 42 | |
| S D | 94 21 | 74 26 | 98 20 | 81 25 | | 100 20 | 83,5 | 25,5 | | 88 23 | 102,5 | 18,5 |
| g S gD | 1.97313 | 1.86923 | 1.99123 | 1.30103 | 1.90849 | 1.39794 | 2.00000 | 1.92169 | 440654 | | 1.36173 | 2.01072 | 1.26717 |
| sf. A sf. B | 9.82284 | 9.71896 | 9.84094 | 9.15074 | 9.75822 | 9.24767 | 9.84971 | 9.77142 | 9.25627 | | 9.21144 | 9.86045 | 9.11690 |
| g cos t | 9.87921 | 9.93044 | 9.85770 | | 9.91354 | | 9.84926 | 9.90679 | | | 9.89352 | 9.83794 | |
| g cos B | 9.99516 378,94 | 9.99252 | 9.99561 366,03 | | 9.99309 | | 9.99561 | 9.99282 | 358,98 | | 9.99417 | 9.99625 | 396,18 |
| g a cos t cos B | 2.57857 429,69 | 2.63316 | 2.58351 413,84 | | 2.61683 | | 2.55507 | 2.60981 | 407,20 | | 2.59789 | 2.54439 | 350,26 |
| Diff | + 50,75 | | + 47,81 | | | | | | + 48,22 | | | | + 45,92 |

## 1887 Juli 25.

* c (8) Glasgow 6114 (8) 2 Rot, 3 Dec

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1870,0 | 23h 8 3,75 | +14° 30 16,61 | | | | | | | | | | | | | |
| | 347° 0 56,25 | | | | | | | | | | | | | | |
| | +12 43,72 | +5 32,35 | 1887 Juli 25.5 | | | | | | | | | | | | |
| Gl 1887,0 | 347° 13 39,97 | +14° 35 48,96 | ζ | +16,60 | | | | | | | | | | | |
| R 1887,0 | 347 13 34,17 | +14 35 47,63 | η | 1.0108 | | | | | | | | | | | |
| (Gl+R) 1887,0 | 347° 13 37,07 | +14° 35 48,29 | ϑ | 45° 8′ | | | | | | | | | | | |
| | + 32,18 | + 9,22 | ζ | 1.3002 | | | | | | | | | | | |
| * c (8) Juli 25 | 347° 14′ 9,25 | +14° 35′ 57,51 | λ | 149 35 | | | | | | | | | | | |
| 1887 Juli 25 | −1 47 19,38 | −10,71 | χ | 0.6409 | | | | | | | | | | | |
| 11h 21m 18,8 | 345° 26′ 49,37 | +14° 35′ 46,80 | | | | | | | | | | | | | |
| m Zt. Dif | 23h 1 47,29 | (258) Tycke (10,8) SK mit * c | | | | | | | | | | | | | |
| | Corr. w. Par. −0,22 | +4,28 | | | | | | | | | | | | | |

Corr. d. Sph. im 4. Grad 300 − 2m 26,8 − 5,2

Reimar 10921 (7.8) 9 Rot, 9 Dec

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1836,0 | 23h 6 21,589 | +14° 19 11,39 | | | | | | | | | | | | | |
| | 346 35 23,83 | | | | | | | | | | | | | | |
| | + 38 10,38 | + 16 36,24 | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | α + α | 32° 22′ | 136° 49′ | | | | | | | | | | |
| | | | | | 9.4014 | | | | | | | | | | |
| | | | ϑ | 9.9267 | 9.8628 n | | | | | | | | | | |
| | | | ζ | 1.0108 | 1.3002 | | | | | | | | | | |
| | | | λ | 9.7286 | 9.8353 | | | | | | | | | | |
| | | | χ | 9.4157 | 0.0143 | | | | | | | | | | |
| | | | | | 0.6409 | | | | | | | | | | |
| | | | | + 16,60 | + 4,23 | | | | | | | | | | |
| | | | | + 1,46 | + 8,66 | | | | | | | | | | |
| | | | | + 14,12 | − 3,67 | | | | | | | | | | |
| | | | | +32,18 | + 9,22 | | | | | | | | | | |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |

## 1887 August 21.

*d(7) Glasgow 6040 5 Bet, 3 Dec

1870,0 $22^h\,54^m\,54{,}09$ $+14°\,10'\,22{,}53$

343 43 31,35

+ 12 39,38 + 5 27,43

1887,0 $343°\,56\;\;10{,}73$ $+14°\,15'\,49{,}96$

+ 39,55 + 15,34

Aug 21 $343°\,56'\,50{,}28$ $+14°\,16'\,5{,}30$

21, − 9 0,01 − 1 35,88

$16^h\,33{,}9$ $343°\,47'\,50{,}26$ $+14°\,14'\,29{,}42$

Zt Dof $22^h\,55^m\,11{,}35$ (258) Tycho (9,7) aus 3 Vergl. ob. mit *d(7) Gl.

Corr. Par −0,14 + 4,66

Corr d. Sph. d. Corr 302 −0,4 + 0,7

Gl 1878,5

| | | | | | |
|---|---|---|---|---|---|
| α | 343° 49,85 | f 17 cos α | 2.51512 | | |
| δ | +14 13,10 | 17 Δδ | + 327,43 | | |
| f 17 | 1.23045 | 1887 Aug 21,5 | g+α | H+α | |
| cos α | 9.98247 | f | + 19,63 | 21° 43' | 107° 40' |
| f n | 1.30220 | f g | 1.0345 | | 9.3916 |
| f sin α | 9.44478 n | g | 37 47 | 9.9680 | 9.4821 n |
| f sin δ | 9.40277 | f k | 1.2840 | 1.0345 | 1.2840 |
| f sin α cos δ | 0.15076 n | H | 123 44 | 9.5682 | 9.9790 |
| m | 46,0847 | f i | 0.8408 | 9.4052 | 0.0136 |
| n sin α cos δ | − 1,4150 | | + 19,63 | + 6,72 | 0.8408 |
| | 44,6697 17 | | + 1,02 | + 10,06 | |
| | 446697 | | + 18,90 | − 1,44 | |
| | 3126879 | | + 39,55 | + 15,34 | |

17 Δα + 759,3849

(258) Tycho (9,7) südlich vom *d(7) beide oben — beide oben — beide oben

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| g. äuss. I. | 57,5 | | 68 | | 58,5 | | 68 | | |
| g. inn. I. | 36,5 | | 50 | | 37,5 | | 50 | | |
| I. D | 94 | 21 | 118 | 18 | 96 | 21 | 118 | 18 | |
| f I f D | 1.97313 | 1.32222 | 2.07188 | 1.25527 | 1.98227 | | | | |
| f sin f B | 9.82340 n | 9.17249 n | 9.92211 | 9.10550 | 9.83254 | | | | |
| f cos δ | 9.87276 n | | 9.73959 | | 9.86519 | | | | |
| f cos B | 9.99514 n | 378,54 | 9.99644 | | 9.99514 n | 372,00 | | | |
| f a cos δ cos B | 2.57811 | 279,40 | 2.44623 | | 2.57053 n | 279,40 | | | |
| Diff | | − 99,14 | | | | − 92,60 | | | |

(258) Tycho (9,7) — *d(7) — Δα — Δδ

| | | | |
|---|---|---|---|
| $21^h\,12\;\;58{,}25$ | $21^h\,13\;\;34{,}00$ | $-0^m\;35{,}75$ | − 99,14 |
| 12 58,25 | 13 34,00 | 35,75 | 92,60 |
| 15 55,25 | 16 31,00 | 35,75 | 95,90 |
| 15 55,25 | 16 31,00 | 35,75 | 17,64 |
| 20 2,50 | 20 39,00 | 36,50 | 3) |
| 20 2,50 | 20 39,00 | 36,50 | − 95,88 |
| 97 52,00 | | 6,00 | − 1′ 35,″88 |
| 6) $21^h\,16\;\;18{,}7$ | | 6) − 0 36,000 | Δδ |
| − 0 0,3 | | Corr 0,001 | |
| $21^h\,16\;\;18{,}4$ | | − 0 36,001 | Δα : 2d |
| 9 57 53,33 | | − 9′ 0,01 | Δα : Bogn |
| 11 18 25,07 | | T + 14° 14,5 | *d + 14° 1 |
| − 1 51,14 | | 9.98644 n | 9.98640 |
| $11^h\,16\;\;33{,}9$ m Zt Dof | | 7.85027 n | 7.85023 |

## 1887 August 22.

*e(8) Lamont 4 Bd 3253 (8.9) 1 Bec

1850,0 $22^h\,50\;\;46{,}18$ $+13°\,55\;\;19{,}60$

342° 41 32,70

+ 27 30,61 + 11 49,30

Lam 1887,0 $343°\,9\;\;3{,}31$ $+14°\,7\;\;8{,}90$

Gl " 16,56 34,62

Σ 1 Lam + 3 Gl 19,87 43,52

¼ (Lam + 3 Gl) $343°\,9\;\;4{,}97$ $+14°\,7\;\;10{,}88$

+ 39,72 + 15,63

Aug 22 $343°\,9\;\;44{,}69$ $+14°\,7\;\;26{,}51$

1887, Aug 22 + 30 21,76 + 1 22,34

$9^h\,55^m\,23{,}0$ $343°\,40'\;\;6{,}45$ $+14°\,8'\;\;48{,}85$

Zt Dof $22^h\,54^m\,40{,}43$ (258) Tycho (9,7) 12 Vge

Corr. w. Par − 0,23 + 4,91

Corr d. Sph. im Corr 302 − 0,3 + 0,7

Glasg 6015 (8) 3 Bet, 3 Dec

1870,0 $22^h\,51\;\;45{,}80$ $+14°\,1\;\;45{,}44$

342° 56 27,00

+ 12 38,52 + 5 26,10

Gl 1887,0 343 9 5,52 +14 7 11,54

| | Lam 1868,5 | Gl 1878,5 | 1887 Aug 22,4 | g+α | H+α |
|---|---|---|---|---|---|
| α | 342° 55,29 | 343° 2,77 | f + 19,71 | 20° 44' | 105° 39' |
| δ | + 14 1,24 | + 14 4,47 | f g 1.0352 | | |
| f 37 | 1.56820 | f 17 1.23045 | g 37° 35' | 9.9709 | 9.4399 n |
| cos α | 9.98041 | 9.98070 | f k 1.2835 | 1.0352 | 1.2835 |
| f n | 1.30220 | 1.30220 | H 122° 50' | 9.5490 | 9.9829 |
| f sin α | 9.46788 n | 9.46479 n | f i 0.8448 | 9.4006 | 0.0133 |
| f cos δ | 9.99744 | 9.99917 | + 19,71 | + 6,78 | 0.8448 |
| m | 0.16754 n | 0.16616 n | + 0,97 | + 10,14 | |
| n sin α cos δ | 46,0818 | 46,0847 | + 19,04 | − 1,29 | |
| | − 1,4708 | − 1,4661 | + 39,72 | + 15,63 | |
| | 44,6110 | 44,6186 | | | |
| | 37 | 17 | | | |
| | 133833 | 446186 | | | |
| | 31 2277 | 31 2330 2 | | | |
| | + 165,0607 | + 758,5162 | | | |
| | 285083 | 2.51335 | | | |
| | + 709,30 | + 326,10 | | | |

T + 14° 8,8 (*e + 14° 7,4) 20

9.98663 9.98667

beide oben 7.85046 7.85050

*e(8) südlich von (258) Tycho (9,7) beide oben — beide oben — beide oben

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| g. äuss. I. | 56 | | 65 | | 56,5 | | 66,5 | | |
| g. inn. I. | 34 | | 47 | | 35 | | 43,5 | | |
| I. D | 90 | 22 | 112 | 18 | 91,5 | 21,5 | 115 | 18 | |
| f I f D | 1.95424 | 1.34242 | 2.04922 | 1.25527 | 1.96142 | 2.33244 | 2.06070 | | |
| f sin f B | 9.80474 | 9.19292 | 9.89968 | 9.10573 | 9.81192 | 9.18294 | 9.91116 | | |
| f cos δ | 9.88656 | | 9.78409 | | 9.88150 | | 9.76303 | | |
| f cos B | 9.99466 | 390,32 | 9.99644 | | 9.99490 | 386,01 | 9.99644 | | |
| f a cos δ cos B | 2.59142 | 309,55 | 2.49073 | | 2.58860 | 294,90 | 2.46967 | | |
| Diff | | + 80,77 | | | | + 91,11 | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| g. äuss. I. | 56,5 | | 67 | | 57,5 | | 66 | | |
| g. inn. I. | 35,5 | | 49 | | 36 | | 48,5 | | |
| I. D | 92 | 21 | 116 | 18 | 93,5 | 21,5 | 114,5 | 17,5 | |
| f I f D | 1.96379 | 1.32222 | 2.06446 | | 1.97081 | | 2.05881 | 1.24304 | |
| f sin f B | 9.81429 | 9.17272 | 9.91492 | | 9.82131 | | 9.90927 | 9.09350 | |
| f cos δ | 9.87976 | | 9.75539 | | 9.87442 | | 9.76671 | | |
| f cos B | 9.99514 | 384,68 | 9.99644 | | 9.99490 | 379,77 | 9.99664 | | |
| f a cos δ cos B | 2.58510 | 289,75 | 2.46203 | | 2.57952 | 297,54 | 2.47355 | | |
| Diff | | + 94,93 | | | | + 82,23 | | | |

## 1887 August 22.

*e(8) — (258) Tycho (9,7) — Δα — Δδ

| | | | | |
|---|---|---|---|---|
| $19^h\,28\;\;30{,}00$ | $19^h\,30\;\;32{,}50$ | $+2^m\;2{,}50$ | + 80,77 | |
| 28 30,00 | 30 32,50 | 2,50 | 91,11 | |
| 33 2,25 | 35 4,25 | 2,00 | 94,93 | |
| 33 2,50 | 35 4,25 | 1,75 | 82,23 | |
| 37 9,25 | 39 11,50 | 2,25 | 83,51 | |
| 37 9,25 | 39 11,50 | 2,25 | 83,10 | |
| 41 16,75 | 43 19,00 | 2,25 | 84,02 | |
| 41 17,00 | 43 18,75 | 1,75 | 76,34 | |
| 49 16,00 | 51 17,75 | 1,75 | 87,14 | |
| 49 16,00 | 51 18,00 | 2,00 | 73,06 | |
| 53 25,00 | 55 26,50 | 1,50 | 78,62 | |
| 53 25,00 | 55 26,25 | 1,25 | 73,29 | |
| 58 6,75 | 20 0 8,00 | 1,25 | 988,12 | |
| 58 7,00 | 0 7,75 | 0,75 | 12) | |
| 20 2 33,00 | 4 33,75 | 0,75 | + 82,34 | |
| 2 33,00 | 4 33,75 | 0,75 | Δδ | |
| 9 27,50 | 11 28,25 | 0,75 | | |
| 9 27,50 | 11 28,25 | 0,75 | | |
| 14 16,75 | 16 18,25 | 1,50 | | |
| 14 16,75 | 16 18,00 | 1,25 | | |
| 23 21,00 | 25 22,25 | 1,25 | | |
| 23 21,00 | 25 22,25 | 1,25 | | |
| 31 7,00 | 33 7,25 | 0,25 | | |
| 31 7,00 | 33 7,50 | 0,50 | | |
| 691 | 38,00 | 34,75 | | |
| + 720 | | | | |
| 1411 | 38,00 | | | |

24) $19^h\,58\;\;49{,}1$ $+2^m\;1{,}448$

+ 0 1,5 Corr 0,003

$19^h\,58\;\;50{,}6$ $+2^m\;1{,}451$ Δα : 2d

10 1 49,88 + 30′ 21,″76 Δα : Bogn

9 57 0,77

− 1 23,80

$9^h\,55^m\,23{,}0$ m Zt Dof

# (258) Tyche

## 1887 August 22 Fortsetzung.

*e(8) südlich von (258) Tyche (9,7) beide enden

| | | |

## 1887 August 26. Fortsetzung.

Sicht nahe

| | | | |
|---|---|---|---|
| g äuss. S | 59 | | 56,5 |
| g inn. S | 38,5 | | 36,5 |
| S D | 97,5 | 20,5 | 93 20 |
| log S gD | 1.98900 | 1.31175 | 1.96848 |
| log A gbB | 9.84034 | 9.16309 | 9.81981 |
| log cos δ | 9.85826 | | 9.87559 |
| log cos b | 9.99534 v | 366,27 | 9.99557 |
| log acos Aosb | 2.56380 v | 381,38 | 2.58136 |
| Diff | | + 15,11 | |

## Schjellerup (3) 9348

1865,0 $22^h 42^m 46,90$ +9° 46′ 2,″40

340° 41 43,50

+ 16 2876 + 6 56,73

| | | | | | |
|---|---|---|---|---|---|
| *g Schj 1887,0 | 340° 58 12,26 | +9° 52′ 59,″13 | | | |
| Lam 1868,5 | Schj 1876,0 | 1887 Sept 16,7 | g+α | 14° 5′ | H+α 77° 54′ |
| α | 340° 44,36 | 340° 49,96 | f | + 21,81 | 9.2346 |
| δ | +9 47,15 | +9 49,51 | lg | 1.0549 | |
| lg r | 1.56820 | lg Δ 1.34242 | g | 33 7 | 9.9867 9.3214 |
| cos α | 9.97498 | 9.97523 | lk | 1.2735 | 1.0549 1.2735 |
| sin | 1.30222 | 1.30220 v | H | 96 56 | 9.3862 9.9902 |
| sin α cos δ | 9.51834 n | 9.51830 n | lí | 0.9079 | 9.2411 0.0065 |
| sin δ | 9.23672 v | 9.23850 | | + 21,81 | + 7.97 0.9079 |
| log sin Aosb | 0.05728 n | 0.05700 n | | + 0,48 | + 11,01 |
| m | 46,0818 | 46,0839 | | + 18,63 | + 0,68 |
| sin Aosb | — 1,1410 | — 1,1403 | | +40,92 | + 19,66 |
| | 44,9408 | 44,9436 | T. | + 9° 51,9 | *g + 9° 53,3 |
| | 37 | 22 | | 9.99353 | 9.99350 |
| | 1348224 | 898872 | | 7.85736 | 7.85733 |
| | 3145856 | 898872 | | | |
| 1. Aα | + 1662,″8096 | + 988,″7592 | | | |
| | 2.84540 | 2.61985 v | | | |
| 1. Aδ | + 700,″48 | + 416,″73 | | | |

## (258) Tyche (27) *g (8)

| | | | | Aα | Aδ |
|---|---|---|---|---|---|
| $20^h 23^m 57,50^s$ | $20^h 28^m 32,00^s$ | | − 4m 34,50 | | − 74,″69 |
| 20 23 57,50 | 28 32,00 | | 34,50 | | 89,53 |
| 20 32 41,50 | 37 16,00 | | 34,50 | | 84,67 |
| 20 32 41,50 | 37 16,00 | | 34,50 | | 84,67 |
| 20 41 27,00 | 46 1,75 | | 34,75 | | 94,03 |
| 20 41 27,00 | 46 2,00 | | 35,00 | | 97,50 |
| 20 51 35,00 | 56 9,75 | | 34,75 | | 93,31 |
| 20 51 35,00 | 56 10,00 | | 35,00 | | 612,40 |
| 20 59 46,75 | 21 4 21,50 | | 34,75 | 7) | |
| 20 59 46,75 | 4 21,50 | | 34,75 | | − 87,″4 |
| 21 10 12,00 | 14 47,25 | | 35,25 | | Aδ |
| 21 10 12,25 | 14 47,25 | | 35,00 | | |
| 21 17 4,50 | 21 39,50 | | 35,00 | | |
| 21 17 4,50 | 21 39,50 | | 35,00 | | |
| 11 53 28,75 | | 14) | 11,25 | 14) | |
| +660 | | | − 4 34,803 v | | |
| 713 28,75 | | | Corr 0,090 v | | |
| $20^h 50^m 57,8^s$ | | | − 4m 34,803 | Aα = 2m | |
| − 0 5,4 | | | − 1° 8 42,04 v | Aδ = Bogen | |
| $20^h 50^m 52,4^s$ | | | | | |
| 11 40 23,70 | | | | | |
| 9 10 28,70 | | | | | |
| − 1 30,18 | | | | | |
| $9^h 8^m 58,5$ m Zt Dif | | | | | |

## 1887 September 16.

*g (8) Lamont 4 Bd 3207 (8)

1850,0 $22^h 42^m 2,00$ +9° 41′ 18,″90

340° 30 30,00

+ 27 42,81 + 11 40,48

| | | | |
|---|---|---|---|
| Lam 1887,0 | 340 58 12,81 | +9 52 59,″38 | |
| Schj 1887,0 | 340 58 12,26 | +9 52 59,″13 | |
| ½(Lam+Schj) 1887,0 | 340° 58 12,53 v | +9° 52 59,″25 v | |
| | + 40,92 | + 19,66 | |
| *g (8) Sept 16 | 340° 58′ 53,45 v | +9° 53′ 18,″91 v | |
| 1887 Sept 16 | − 1 8 42,04 v | − 1 27,49 | |
| $9^h 8^m 58,5$ | 339° 50′ 11,″41 | +9° 51′ 51,42 v | # |
| m Zt Dif | $22^h 39^m 20,76$ | (258) Tyche (9,7) 7 V. mit *g (8) | |
| Corr. w. Par | − 0,″15 | + 5,″33 | |

Corr. d. Opt. im 4. Cäre 303 − 2,″9 + 0,″4 v

## (258) Tyche (9,7) nördlich von *g (Hall 8) beide oben

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g äuss. S. | 53 | | 62 | | beide oben | 53 | 63 | 54 | beide oben | 63,5 | | beide oben | 54 | 63,5 | | | |
| g inn. S. | 31 | | 44 | | | 31 | 45 | 32 | | 46 | | | 32 | 46 | | | |
| S D | 84 | 22 | 106 | 18 | | 84 22 | 108 18 | 86 | 22 | 109,5 | 17,5 | | 86 22 | 109,5 | | | |
| log S gD | 1.92423 | 1.34242 | 2.02531 | 1.25527 | | | 2.03342 | 1.93450 | | 2.03941 | 1.24304 | | | | | | |
| log A gbB | 9.78164 | 9.19978 | 9.88264 | 9.11260 | | | 9.89075 | 9.79186 | | 9.89674 | 9.10037 | | | | | | |
| log cos δ | 9.90110 | | 9.81035 | | | | 9.79850 | 9.89498 | | 9.78900 | | | | | | | |
| log cos b | 9.99448 | 403,44 | 9.99632 | | | 403,44 | 9.99632 | 9.99448 | 397,80 | 9.99652 | | | | | | | |
| log acos Aosb | 2.60578 | 328,75 | 2.51687 | | | 319,91 | 2.50502 | 2.59966 | 313,13 | 2.49572 | | | | | | | |
| Diff | | − 74,69 | | | | − 83,53 | | | − 84,67 | | | | − 84,67 | | | | |

## beide oben / beide unten / beide unten

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g äuss. S. | 54,5 | | 65 | | 62 | | 48,5 | | 61 | | 48 | | | | | | |
| g inn. S. | 32,5 | | 47 | | 43,5 | | 25,5 | | 43 | | 25 | | | | | | |
| S D | 87 | 22 | 112 18 | | 105,5 | 18,5 | 74 | 23 | 104 | 18 | 73 23 | | | | | | |
| log S gD | 1.93952 | | 2.04922 | | 2.02325 | 1.26717 | 1.86923 | 1.36173 | 2.01703 | 1.25527 | 1.86332 | | | | | | |
| log A gbB | 9.79688 | | 9.90655 | | 9.88061 | 9.12453 | 9.72656 | 9.21906 | 9.87439 | 9.11263 | 9.72065 | | | | | | |
| log cos δ | 9.89180 | | 9.77135 | | 9.81314 | | 9.92750 | | 9.82135 | | 9.92980 | | | | | | |
| log cos b | 9.99448 | 394,89 | 9.99632 | | 9.99611 | 330,71 | 9.99396 | | 9.99632 | 337,18 | 9.99396 | | | | | | |
| log acos Aosb | 2.59648 | 300,86 | 2.47837 | | 2.51945 | 428,21 | 2.63166 | | 2.52787 | 430,49 | 2.63396 | | | | | | |
| Diff | | − 94,03 | | | | − 97,50 | | | | − 93,31 | | | | | | | |

## 1887 September 20.

*h (9,3) Schjellerups N 9289 (10)

1865,0 $22^h 35^m 38,57$ +8° 50′ 17,″10

338° 54 38,55

+ 16 29,15 + 6 52,02

| | | | |
|---|---|---|---|
| *h (9,3) 1887,0 | 339° 11′ 7,70 | +8° 57′ 9,12 | |
| | + 40,52 | + 20,14 | |
| *h Sept 20 | 339° 11′ 48,22 | +8° 57′ 29,″26 | |
| 1887 Sept 20 | + 7 20,81 | − 31,22 | |
| $9^h 7^m 7,1$ | 339° 19′ 9,03 | +8° 56′ 58,04 | # |
| m Zt Dif | $22^h 37^m 16,60$ | (258) Tyche (10) 10 V. mit *h | |
| Corr. w. Par | − 0,″13 | + 5,″36 | |

Corr. d. Opt. im 4. Cäre 303 − 2,″7 + 0,″3 v

## *h (9,3) nördlich von (258) Tyche (10) beide unten

| | | | | | |
|---|---|---|---|---|---|
| g äuss. S | 59,5 | | 62 | | |
| g inn. S. | 40,5 | | 44 | | |
| S D | 100 | 19 | 106 | 18 | |
| log S gD | 2.00000 | 1.27875 | 2.02531 | 1.25527 | |
| log A gbB | 9.85850 | 9.13725 | 9.88382 | 9.11378 | |
| log cos δ | 9.84007 | | 9.80868 | | |
| log cos b | 9.99588 | 351,68 | 9.99630 | | |
| log acos Aosb | 2.54615 | 327,48 | 2.51518 | | |
| Diff | | − 24,20 | | | |

| | | | | | |
|---|---|---|---|---|---|
| 1887 Sept 20,4 | g+α | H+α | | | |
| f | + 22,″11 | 11° 48′ | 71° 51′ | | |
| lg | 1.0584 | | 9.1919 | | |
| g | 32 37 | 9.9907 | 9.4935 | | |
| lk | 1.2732 | 1.0584 | 1.2732 | | |
| H | 92 40 | 9.3107 | 9.9773 | | |
| lí | 0.9102 | 9.1973 | 0.0058 | | |
| | | | 0.9102 | | |
| | | + 22,11 | + 8,03 | | |
| | | + 0,37 | + 11,20 | | |
| | | + 18,04 | + 0,91 | | |
| | | + 40,52 | + 20,14 | | |

| | |
|---|---|
| *h Schj 1887 | |
| α | 339° 2,39 |
| δ | +8 53,72 |
| log r | 1.34242 |
| log cos α | 9.97029 |
| log n | 1.30220 |
| log sin α | 9.55338 |
| log b | 9.19455 |
| log sin α cos δ | 0.05013 v |
| m | 46,0839 |
| sin α cos δ | − 1,1224 |
| | 44,9615 |
| | 22 |
| | 899230 |
| | 89923 |
| | +989,″153 |
| | 2.61492 |
| | + 412,″02 |
| *h + 8° 57′ 5 | T + 8° 57′ 5 |
| 9.99467 | 9.99468 |
| 7.85850 | 7.85851 |

# (258) Tycho.

## 1887 September 20 Forderberg.

*h (9,3) nördlich von (258) Tycho (10) beide unten

| | | | | |
|---|---|---|---|---|
| g. äuss. S. | 58,5 | | 61 | |
| g. inn. S. | 39,5 | | 43 | |
| S D | 98 | 19 | 104 | 18 |
| g S gD | 1.99123 | | 2.01703 | |
| gf:d gf:B | 9.84973 | | 9.87554 | |
| g cos δ | 9.84924 | | 9.81987 | |
| g cos B | 9.99588 | 359,18 | 9.99690 | |
| g a cos δ cos B | 2.55532 | 336,02 | 2.52637 | |
| Diff | | −23,16 | | |

beide unten

| | | | | |
|---|---|---|---|---|
| g. äuss. S. | 59 | 61 | | |
| g. inn. S. | 40 | 43 | | |
| S D | 99 19 | 104 18 | | |
| g S gD | 1.99564 | | | |
| gf:d gf:B | 9.85414 | | | |
| g cos δ | 9.84473 | | | |
| g cos B | 9.99588 | 355,47 | | |
| g a cos δ cos B | 2.55081 | 336,02 | | |
| Diff | | −19,45 | | |

beide oben

| | | | | |
|---|---|---|---|---|
| g. äuss. S. | 65 | | 62 | |
| g. inn. S. | 48 | | 44 | |
| S D | 113 | 17 | 106 | 18 |
| g S gD | 2.05308 | | 1.23045 | |
| gf:d gf:B | 9.91158 | | 9.08895 | |
| g cos δ | 9.76218 | | | |
| g cos B | 9.99670 | 294,49 | | |
| g a cos δ cos B | 2.46908 | 327,48 | | |
| Diff | | −32,99 | | |

beide oben

| | | | | |
|---|---|---|---|---|
| g. äuss. S. | 65 | | 63 | |
| g. inn. S. | 48 | | 44,5 | |
| S D | 113 17 | | 107,5 | 18,5 |
| g S gD | 2.03141 | | 1.26717 | |
| gf:d gf:B | 9.88992 | | 9.12568 | |
| g cos δ | 9.79976 | | | |
| g cos B | 294,49 | 9.99809 | | |
| g a cos δ cos B | 320,66 | 2.50605 | | |
| Diff | −26,17 | | | |

beide oben

| | | | | |
|---|---|---|---|---|
| g. äuss. S. | 65 | | 63 | |
| g. inn. S. | 48 | | 45 | |
| S D | 113 17 | | 108 | 18 |
| g S gD | 2.03342 | | | |
| gf:d gf:B | 9.89193 | | | |
| g cos δ | 9.79868 | | | |
| g cos B | 294,49 | 9.99630 | | |
| g a cos δ cos B | 318,55 | 2.50318 | | |
| Diff | −24,06 | | | |

beide oben

| | | | | |
|---|---|---|---|---|
| g. äuss. S. | 66,5 | | 63 | |
| g. inn. S. | 49,5 | | 45 | |
| S D | 116 17 | | 108 | 18 |
| g S gD | 2.06446 | | | |
| gf:d gf:B | 9.92296 | | | |
| g cos δ | 9.73760 | | | |
| g cos B | 9.99670 | 278,29 | | |
| g a cos δ cos B | 2.44450 | 318,55 | | |
| Diff | −40,26 | | | |

beide oben

| | | | | |
|---|---|---|---|---|
| g. äuss. S. | 66,5 | | 62,5 | |
| g. inn. S. | 49,5 | | 44,5 | |
| S D | 116 17 | | 107 | 18 |
| g S gD | 2.02938 | | | |
| gf:d gf:B | 9.88789 | | | |
| g cos δ | 9.80280 | | | |
| g cos B | 9.99630 | 278,29 | | |
| g a cos δ cos B | 2.50930 | 323,07 | | |
| Diff | −44,78 | | | |

beide unten

| | | | | |
|---|---|---|---|---|
| g. äuss. S. | 56,5 | | 61 | |
| g. inn. S. | 36,5 | | 43 | |
| S D | 93 20 | 104 | 18 | |
| g S gD | 1.96848 | 1.30103 | | |
| gf:d gf:B | 9.82698 | 9.15953 | | |
| g cos δ | 9.86988 | | | |
| g cos B | 9.99543 | 376,28 | | |
| g a cos δ cos B | 2.57531 | 336,02 | | |
| Diff | | −40,26 | | |

beide unten

| | | | | |
|---|---|---|---|---|
| g. äuss. S. | 57 | | 61 | |
| g. inn. S. | 37 | | 43 | |
| S D | 94 20 | | 104 | 18 |
| g S gD | 1.97313 | | | |
| gf:d gf:B | 9.83163 | | | |
| g cos δ | 9.86598 | | | |
| g cos B | 9.99543 | 372,92 | | |
| g a cos δ cos B | 2.57161 | 336,02 | | |
| Diff | | −36,90 | | |

| | | |
|---|---|---|
| *i | Arg 1861,0 | Schj 1876,0 |
| α | 338° 42,54 | 338° 46,31 |
| δ | +8 39,95 | +8 41,47 |
| g32 | 1.50315 | g22 1.34242 |
| g cos α | 9.96930 | 9.96948 v |
| g n | 1.30221 | g n 1.30220 v |
| gf α | 9.56003 n | 9.55881 n |
| g g δ | 9.18302 | 9.18430 v |
| g nf α g δ | 0.04526 n | 0.04532 n |
| m | 46,0825 | m 46,0339 |
| nf α g δ | −1,1098 | −1,1100 |
| | 44,9727 (32) | 44,9739 (22) |
| | 1349181 | 899478 |
| | 899454 | 899478 |
| | +1439,1264 | +989,4258 |
| | 2.77866 | 2.61411 |
| | +597,94 | +411,25 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 20 | 39 | 40,25 | 20 | 40 | 10,00 | + 29,75 |
| | 39 | 40,25 | | 40 | 10,00 | 29,75 |
| | 44 | 32,25 | | 45 | 2,50 | 30,25 |
| | 44 | 32,25 | | 45 | 2,50 | 30,25 |
| | 48 | 19,00 | | 48 | 48,50 | 29,50 |
| | 48 | 19,00 | | 48 | 48,50 | 29,50 |
| | 58 | 5,50 | | 58 | 35,00 | 29,50 |
| | 58 | 5,50 | | 58 | 35,00 | 29,50 |
| 21 | 0 | 41,00 | 21 | 1 | 10,50 | 29,50 |
| | 0 | 41,00 | | 1 | 10,25 | 29,25 |
| | 3 | 11,50 | | 3 | 41,00 | 29,50 |
| | 3 | 11,50 | | 3 | 41,00 | 29,50 |
| | 17 | 55,25 | | 18 | 24,50 | 29,25 |
| | 17 | 55,25 | | 18 | 24,50 | 29,25 |
| | 20 | 27,25 | | 20 | 56,25 | 29,00 |
| | 20 | 27,25 | | 20 | 56,25 | 29,00 |
| | 23 | 58,25 | | 24 | 27,00 | 28,75 |
| | 23 | 58,25 | | 24 | 27,00 | 28,75 |
| | 27 | 6,50 | | 27 | 35,50 | 29,00 |
| | 27 | 6,50 | | 27 | 35,50 | + 29,00 |
| | | | | 577 | 41,25 | 7,75 |
| | | | | −480 | | 20) |
| 20) | | | | 97 | 41,25 | + 29,387 |
| | | | | 21h 4 | 53,1 | Cor 0,000 |
| | | | | −0 | 6,2 | |
| | | | | 21h 4 | 46,9 | + 29,387 v |
| | | | | 11 | 56 | 9,40 | +7′ 20,″81 |
| | | | | 9 | 8 | 37,60 | |
| | | | | | −1 | 29,87 | |
| | | | | 9h 7m | 7,1 | m Zt Dif |

## 1887 September 21.

*i Argelander (9,2)

1855,0 22h 34 2,20 +8° 34′ 58,″10
338° 30 33,00
+ 23 59,13 + 9 57,94

Arg 1887,0 338° 54 32,13 +8° 44 56,04
Schj 1887,0 338 54 33,18 +8 44 53,85
*i (9,2) Schj. 1887,0 338° 54 32,65 v +8° 44 54,94 v
+ 40,43 + 20,23
*i (9,2) Sept 21 338° 55′ 13,″08 +8° 45′ 15,″17 v
1887 Sept 21 + 16 51,74 − 2 7,08
8h 39m 52,2 339° 12′ 4,″82 v +8° 43′ 8,″10
m Zt Dif 22h 36 48,32 (258) Tycho (10) N v *i
C. v. Bar − 0,16 +5,41
Corr. Eph. in A.C. 303 −3,3 +0,2 v

Schjellerup 9281 (10)

1865,0 22h 34 32,25 +8° 38′ 2,″60
338 38 3,75
+ 16 29,43 + 6 51,25

Schj 1887,0 338 54 33,18 +8 44 53,85

| | | | |
|---|---|---|---|
| 1887 Sept 21,4 | g+α | 11° 25′ | 70° 31′ |
| f | +22,″19 | | |
| g g | 1.0593 | | 9.1821 |
| A | 32 30 | 9.9913 | 9.5231 |
| g h | 1.2732 | 1.0593 | 1.2732 |
| # h | 91 36 | 9.2965 | 9.9744 |
| gi | a 9105 | 9.1872 | 0.0051 |
| | | | 0.9105 |

| | | |
|---|---|---|
| | + 22,″19 | + 8,04 |
| | + 0,35 | + 11,24 |
| | + 17,89 | + 0,95 |
| | + 40,43 | + 20,23 |
| *i | 9.99491 v | T. 9.99495 |
| | 7.85874 | 7.85878 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 20 | 25m | 14,00 | 20h | 26 | 22,00 | + 1m 8,00 |
| | 25 | 14,00 | | 26 | 22,00 | 8,00 |
| | 28 | 12,00 | | 29 | 19,75 | 7,75 |
| | 28 | 12,00 | | 29 | 19,75 | 7,75 |
| | 31 | 7,50 | | 32 | 15,25 | 7,75 |
| | 31 | 7,50 | | 32 | 15,25 | 7,75 |
| | 33 | 32,50 | | 36 | 40,25 | 7,75 |
| | 35 | 32,50 | | 36 | 40,25 | 7,75 |
| | 38 | 35,50 | | 39 | 42,75 | 7,25 |
| | 38 | 35,00 | | 39 | 42,75 | 7,75 |
| | 43 | 8,25 | | 44 | 16,00 | 7,75 |
| | 43 | 8,25 | | 44 | 16,00 | 7,75 |
| | 46 | 1,50 | | 47 | 8,50 | 7,00 |
| | 46 | 1,50 | | 47 | 8,50 | 7,00 |
| | 48 | 59,50 | | 50 | 6,50 | 7,00 |
| | 48 | 59,50 | | 50 | 6,50 | 7,00 |
| | 51 | 57,50 | | 53 | 4,75 | 7,25 |
| | 51 | 57,50 | | 53 | 4,75 | 7,25 |
| | 55 | 3,75 | | 56 | 10,50 | 6,75 |
| | 55 | 3,75 | | 56 | 10,50 | 6,75 |
| 20) | | | | 830 | 12,50 | 20) 149,00 |
| | | | | 20h 41 | 30,6 | + 1 7,450 |
| | | | | −0 | 6,5 | Cor 0,000 |
| | | | | 20h 41 | 23,1 | + 1m 7,449 v |
| | | | | 12 | 0 | 6,46 | + 16′ 51,″74 |
| | | | | 8 | 41 | 17,64 | |
| | | | | | −1 | 25,41 | |
| | | | | 8h 39m | 52,2 | m Zt Dif |

## *i (9,2) nördlich von (258) Tycho (10) beide unten

| | | | | |
|---|---|---|---|---|
| g. äuss. S. | 52 | | 65 | |
| g. inn. S. | 30 | | 48 | |
| S D | 82 | 22 | 113 | 17 |
| g S gD | 1.91381 | 1.34242 | 2.05308 | 1.23045 |
| gf:d gf:B | 9.77255 v | 9.20116 v | 9.91186 | 9.08923 |
| g cos δ | 9.90617 | | 9.76162 | |
| g cos B | 9.99445 | 408,15 | 9.99670 | |
| g a cos δ cos B | 2.61082 | 294,11 | 2.46852 | |
| Diff | | −114,04 | | |

beide unten

| | | | | |
|---|---|---|---|---|
| g. äuss. S. | 52 | | 65,5 | |
| g. inn. S. | 30 | | 48,5 | |
| S D | 82 | 22 | 114 | 17 |
| g S gD | | | 2.05690 | |
| gf:d gf:B | | | 9.91568 | |
| g cos δ | | | 9.75379 | |
| g cos B | | 408,15 | 9.99670 | |
| g a cos δ cos B | | 288,86 | 2.46069 | |
| Diff | | −119,29 | | |

beide unten

| | | | | |
|---|---|---|---|---|
| g. äuss. S. | 51 | | 65,5 | |
| g. inn. S. | 29 | | 48,5 | |
| S D | 80 | 22 | 114 | 17 |
| g S gD | 1.90309 | | | |
| gf:d gf:B | 9.76183 v | | | |
| g cos δ | 9.91175 | | | |
| g cos B | 9.99445 | | 413,43 | |
| g a cos δ cos B | 2.61640 | | 288,86 | |
| Diff | | −124,57 | | |

so weit 1887 Orb. an Wilh. für Dr. Lehrb. Abendg.

1887 September 21 Fortsetzung.

| | beide unten | | beide unten | | beide oben | | | beide oben |
|---|---|---|---|---|---|---|---|---|
| g.äuss.S. | 51 | 65,5 | 51 | 65,5 | 64,5 | 49 | | 65 |
| g.inn.S. | 29 | 48,5 | 28 | 48,5 | 47,5 | 24 | | 48 |
| S D | 80 22 | 114 17 | 79 23 | 114 17 | 112 17 | 73 25 | | 113 17 |
| g S gD | | | 1.89763 1.36173 | | 2.04922 1.23045 | 1.86332 1.39794 | | 2.05308 |
| sin S gS | | | 9.75637n 9.22887n | | 9.90796n 9.08919n | 9.72210 9.25672 | | 9.91182n |
| cos S | | | 9.91444 | | 9.76922 | 9.92924 | | 9.76169 |
| cos gS | | | 9.99392 415,49 | | 9.99670 299,31 | 9.99230 | | 9.99670 294,16 |
| cos S cos gS | | | 2.61856 288,86 | | 2.47612 428,79 | 2.63224 | | 2.46859 428,79 |
| Diff | — 124,57 | | — 126,63 | | — 129,48 | | | — 134,63 |

| | beide oben | | beide oben | | beide oben | | | |
|---|---|---|---|---|---|---|---|---|
| g.äuss.S. | 65 | 50 | 65 | 49,5 | 65,5 | 50 | | |
| g.inn.S. | 48 | 25 | 48 | 24,5 | 48,5 | 25 | | |
| S D | 113 17 | 75 25 | 113 17 | 74 25 | 114 17 | 75 25 | | |
| g S gD | | 1.87506 | | 1.86923 | 2.05690 | | | |
| sin S gS | | 9.73384 | | 9.72801 | 9.91564n | | | |
| cos S | | 9.92454 | | 9.92692 | 9.75387 | | | |
| cos gS | 294,16 | 9.99280 | 294,16 | 9.99280 | 9.99670 | 288,91 | | |
| cos S cos gS | 424,17 | 2.62754 | 426,50 | 2.62992 | 2.46077 | 424,17 | | |
| Diff | —130,01 | | —132,34 | | | —135,26 | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| *K | Tych 1876,0 | Gl 1878,5 | | | | | | |
| α | 343° 7,71 | 343° 9,62 | | | | | | |
| δ | — 0 58,79 | — 0 37,99 | | | | | | |
| g 22 | 1.34242 | 17 1.23045 | 12 | | | | | |
| cos α | 9.98089 | 9.98096n | | | | | | |
| n | 1.30220n | 1.30220 | | | | | | |
| n cos α | 9.46274 n | 9.46194 n | | | | | | |
| g δ | 8.22307 n | 8.22713 n | | | | | | |
| n cos α g δ | 8.99801n | 8.99127 | | | | | | |
| m | 46,0839 | 46,0847 | | | | | | |
| m cos α g δ | + 0,0995 | + 0,0980 | + | | | | | |
| | 46,1834 | 46,1827 | | | | | | |
| | 22 | 17 | | | | | | |
| | 923668 | 461827 | | | | | | |
| | 923668 | 3232789 | | | | | | |
| | + 1016,0348 | + 785,1059 | + 53 | | | | | |
| | 2.62551n | 2.51361n | 2 | | | | | |
| | + 422,20 | + 326,30 | + 2 | | | | | |

1887 November 17.

*K (7,5) Schjellerup Ng428 (8)
1865,0 22h 51 56,96 — 1° 2 18,70
342 59 14,40
+ 16 56,08 + 7 2,20
Selj 1 1887,0 343° 16 10,43 — 0° 55 16,50
Gl 3 Pict, 4 Del 29,28 66,80
2 Gocll 22,66 36,76
6 Pict, 7 Del 6) 6237 ") 189,06
Mittel 1887,0 343 16 10,40 — 0 55 19,01
+ 33,06 + 17,77
*K Nov 17 343° 16' 43,46 — 0° 54' 59,24
1887 Nov 17 + 27 44,60 + 19,05
6h 49m 21,9 343° 44' 28,06 — 0° 54 40,19
m Dek 22h 54m 57,87 (258) Tycho (11,5) 10' mit *K (7,5)
C.w. Par —0,02 +4,64

Glasgow N6021 (7,3) 3 Pict 4 Del
1870,0 22h 52 12,31 — 1° 0 42,75
343° 3 4,65
+ 13 5,11 + 5 26,30
1887,0 343° 16 9,76 — 0° 55 16,45
Gocll 6335 22h 52 27,67 — 0° 59 9,4
(7,5) 6336 27,95 8,1
Gocll 1875,0 22h 52 27,81 — 0 59 8,75
343 6 57,15
+ 9 14,18 + 3 50,37
1887,0 343 16 11,33 — 0 55 18,38

| 1887 Nov 17,3 | g + α | H + α |
|---|---|---|
| f + 27,67 | 11° 48' | 15° 51' |
| gg 1.1374 | | 8.2063 n |
| g 28 32 | 9.9907 | 9.9832 |
| gl 1.2993 | 1.1374 | 1.2993 |
| h 32 35 | 9.3107 | 9.4364 |
| gi 0.6672 | 8.2063 n | 0.0001 |
| | | 0.6672 |
| | + 27,67 | + 4,65 |
| | — 0,05 | + 13,43 |
| | + 5,44 | — 0,31 |
| | + 33,06 | + 17,77 |

K — 0° 55,0 Tycho — 0° 54,7
9.99994 9.99994
7.86377 7.86377

| *K (7,5) | (258) Tycho (11,5) | Δα | δ | |
|---|---|---|---|---|
| 22h 14 | 29,00 | 22h 16 19,50 | +1m 50,50 | |
| 14 | 29,00 | 16 19,50 | 50,50 | |
| 18 | 12,25 | 20 2,75 | 50,50 | |
| 18 | 12,50 | 20 3,00 | 50,50 | |
| 23 | 4,50 | 24 55,00 | 50,50 | |
| 23 | 4,50 | 24 55,00 | 50,50 | |
| 26 | 42,50 | 28 32,75 | 50,25 | |
| 26 | 42,50 | 28 32,75 | 50,25 | |
| 31 | 42,50 | 33 33,00 | 50,50 | |
| 31 | 42,50 | 33 33,00 | 50,50 | |
| 38 | 39,75 | 40 30,50 | 50,75 | 16) |
| 38 | 39,75 | 40 30,50 | 50,75 | |
| 42 | 51,50 | 44 43,25 | 51,75 | |
| 42 | 51,75 | 44 43,00 | 51,25 | |
| 47 | 29,25 | 49 20,50 | 51,25 | |
| 47 | 29,00 | 49 20,50 | 51,50 | |
| 51 | 41,00 | 53 32,50 | 51,50 | |
| 51 | 41,00 | 53 32,50 | 51,50 | |
| 56 | 56,75 | 58 49,00 | 52,25 | |
| 56 | 56,50 | 58 49,00 | 52,50 | |
| 20) | 740 | 37,50 | 19,50 | |
| | 22 37 | 1,9 | 20) +1 50,975 | |
| | — 1 | 42,8 | Cor 0,002 | |
| | 22 35 | 19,1 | +1 50,973 Δα | |
| | 15 44 | 50,00 | +27' 44,60 Δα | |
| | 6 50 | 29,10 | | |
| | — 1 | 7,25 | | |
| 6h 49m | 21,9 | m 22 Dek | | |

*K nahe auf d. Parallel von (258) Tycho (11,5) beide oben

| | | | | | oben | | | |
|---|---|---|---|---|---|---|---|---|
| g.äuss.S. | 51 | | 55 | | 52,5 | | 55,5 | |
| g.inn.S. | 28 | | 33 | | 29 | | 34 | |
| S D | 79 | 23 | 88 | 22 | 81,5 | 23,5 | 89,5 | 21,5 |
| g S gD | 1.89763 | 1.36173 | 1.94448 | 1.34242 | 1.91116 | 1.37107 | 1.95182 | 1.33244 |
| sin S gS | 9.76140 | 9.22550 | 9.80825 | 9.20619 | 9.77493 | 9.23484 | 9.81559 | 9.19621 |
| cos S | 9.91197 | | 9.88413 | | 9.90488 | | 9.87880 | |
| cos gS | 9.99378 | 413,00 | 9.99432 | | 9.99350 | 406,05 | 9.99457 | |
| cos S cos gS | 2.61595 | 387,84 | 2.58865 | | 2.60858 | 383,33 | 2.58357 | |
| Diff | | + 25,16 | | | | + 22,72 | | |

| | oben | | oben | | oben | | | |
|---|---|---|---|---|---|---|---|---|
| g.äuss.S. | 53 | | 56 | 53 | 55,5 | | 53 | 56 |
| g.inn.S. | 30 | | 34 | 31 | 34,5 | | 32 | 35 |
| S D | 83 | 23 | 90 22 | 84 22 | 90 | 21 | 85 | 21 | 91 21 |
| g S gD | 1.91908 | | 1.95424 | 1.92428 | | 1.32222 | 1.92942 | | 1.95904 |
| sin S gS | 9.78285 | | 9.78101 | 9.78805 | | 9.18599 | 9.79319 | | 9.82281 |
| cos S | 9.90040 | | 9.87697 | 9.89732 | 9.87697 | | 9.89415 | | 9.87324 |
| cos gS | 9.99378 | 402,15 | 9.99432 | 9.99432 | 9.99483 | 399,80 | 9.99483 | 397,35 | 9.99483 |
| cos S cos gS | 2.60438 | 381,50 | 2.58149 | 2.60184 | 2.58200 | 381,95 | 2.59918 | 378,67 | 2.57827 |
| Diff | | + 20,65 | | | | + 17,85 | | + 18,68 | |

## 1887 November 17 Fortsetzung.

| | ✱K (7,5) | beide unter | (258) Tyche |
|---|---|---|---|
| g. äuss. S. | 29,5 | | 57 |
| g. inn. S. | 39,5 | | 37 |
| S. D | 99 | 20 | 94 20 |
| g S g D | 1.99564 | 1.30103 | 1.97313 |
| g S cot h S B | 9.85941 | 9.16480 | 9.83690 |
| g cos t | 9.83908 | | 9.86138 |
| g cos B | 9.99531 v | 350,43 | 9.99531 v |
| cos t cos B | 2.54459 v | 368,89 | 2.56689 v |
| Diff | | + 18,46 | |

| | ✱ | beide unter | T |
|---|---|---|---|
| g. äuss. S. | 59 | | 56,5 |
| g. inn. S. | 40,5 | | 37 |
| S. D | 99,5 | 18,5 | 93,5 |
| g S g D | 1.99782 | 1.26717 | 1.97081 |
| g S cot h S B | 9.86159 | 9.13094 | 9.83458 |
| g cos t | 9.83666 | | 9.86343 |
| g cos B | 9.99600 | 349,02 | 9.99555 |
| cos t cos B | 2.54286 | 370,83 | 2.56918 |
| Diff | | + 21,81 | |

| | ✱ | unter | T |
|---|---|---|---|
| | 58,5 | | 57 |
| | 40 | | 37 |
| | 98,5 | 18,5 | 94 20 |
| | 1.99344 | | 1.97081 |
| | 9.85721 | | 9.83458 |
| | 9.84148 | | 9.86343 |
| | 9.99600 | 352,93 | 9.99555 |
| | 2.54768 | 368,89 | 2.56918 |
| | | + 15,96 | |

| | ✱ | unter | T |
|---|---|---|---|
| | 58 | | 57 |
| | 40 | | 37 |
| | 98 | 18 | 94 20 |
| | 1.99123 | 1.25527 | |
| | 9.85500 | 9.11904 | |
| | 9.84382 | | |
| | 9.99621 | 353,00 | |
| | 2.55023 | 368,89 | |
| | | + 13,89 | |

| | ✱K | beide unter | T |
|---|---|---|---|
| g. äuss. S. | 57,5 | | 56 |
| g. inn. S. | 39 | | 36 |
| S. D | 96,5 | 18,5 | 92 20 |
| g S g D | 1.98453 | | 1.96379 |
| g S cot h S B | 9.84830 | | 9.82756 |
| g cos t | 9.85067 | | 9.86940 |
| g cos B | 9.99600 | 360,47 | 9.99531 v |
| cos t cos B | 2.55687 | 375,76 | 2.57491 v |
| Diff | | + 15,29 | |

Von 8 III 1889 (Astr. Nachr. N 2875) gelangen nur 1 Boot : Rom und 2 : Hamburg.

In 8 IV 1890 wurde (258) Tyche 1890 April 11 von Dr W. Luther : Hamburg wieder aufgefunden und April 13 : Dorpat beobachtet.

## IV. 1890 April 13.

| | | | | | |
|---|---|---|---|---|---|
| a (g) Lamont 5 N 1303 (g) | | | | | |
| (g) 1850,0 | 13h 15m 8,30 | −9° 54′ 43,30 | | | |
| | 198° 47′ 4,50 | | | | |
| | + 31 29,53 | − 12 38,27 | | | |
| a (g) 1890,0 | 199° 18′ 34,03 | −10° 7′ 21,57 | | | |
| | + 15,51 | − 6,61 | | | |
| a ort April 13 | 199° 18 49,54 | −10° 7 28,18 | | | |
| 1890 April 13 | −1 8 12,34 | − 46,11 | | | |
| 21h 22,9 | 198° 10′ 37,20 | −10° 8′ 14,29 | | | |
| m 21 Dif | 12h 12m 42,48 | (258) Tyche (11,5) 6 V. mit ✱a (g) | | | |
| Lw. Par | − 0,02 | + 3,69 | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| ✱a | 1870,0 Lamont | 1890 April 13,5 | g + α | h + α | 1890 April 13 | |
| | α | 199° 2′ 32 | f − 3″,46 | 31° 34′ | 83° 28′ | (258) Tyche (11,5) |
| | δ | −10 1,04 | lg 0.2439 | | 9.2449 n | 12h 20m 18,25 |
| | f 40 | 2.60206 | g 212 15 | 9.9735 | 9.0561 | 20 18,00 |
| | f cos α | 9.97555 n | f h 1.2798 | 0.2439 | 1.2798 | 30 13,00 |
| | f n | 1.30221 v | h 244 9 | 9.8939 | 9.9972 | 30 13,00 |
| | f i : α | 9.51367 v n | f i 0.8714 n | 9.2517 n | 0.0068 | 50 2,00 |
| | f g δ | 9.24709 n | | | 0.8714 n | 50 2,00 |
| | f cos i g δ | 0.06298 | | − 3″,46 | − 7″,32 | 58 34,00 |
| | m | 46″,0822 | | − 0,25 | + 1,09 | 58 34,00 |
| | n : α g δ | + 1,1561 | | + 19,22 | − 0,38 | 13h 6 46,00 |
| | | 47,2383 | | + 15,51 | − 6,61 | 6 46,00 |
| | | 40 | | | | 15 56,00 |
| | | + 1889″,532 | T −10° 8′,2 | ✱a −10° 7′,5 | | 15 56,00 |
| | | 3.87982 v n | 9.99316 v | 9.99318 | | 363 38,25 |
| | | − 758″,27 | 7.85699 v | 7.85701 | | + 240 |
| | | | | | | 603 38,25 |
| | | | | | | 12h 50 18,2 |
| | | | | | | − 38,0 v |
| | | | | | | 12h 49 40,1 v |
| | | | | | | 1 26 25,36 |
| | | | | | | 11 23 14,79 |
| | | | | | | − 1 51,93 |
| | | | | | | 11h 21 22,9 |

12) m 21 Dif

| 1890 April 13 | | | | |
|---|---|---|---|---|
| ✱a (g) | S | Δα | S | Δδ |
| 12h 24m 50,25 | | − 4s 32,00 | | − 56,14 |
| 24 50,50 | | 32,50 | | 56,19 |
| 24 45,00 | | 32,00 | | 50,98 |
| 24 45,00 | | 32,00 | | 41,87 |
| 24 34,50 | | 32,50 | | 31,09 |
| 24 34,50 | | 32,50 | | 40,39 |
| 13h 3 7,00 | | 33,00 | | 27,66 |
| 3 7,00 | | 33,00 | b) | |
| 11h 19,25 | | 33,25 | | − 46,11 |
| 11 19,25 | | 33,25 | | Δδ |
| 20 30,00 | | 34,00 | | |
| 20 30,00 | | 34,00 | | |
| | | | 12) 34,00 | |
| | | | − 4s 32,833 | |
| | | | Corr 0,010 | |
| | | | − 4s 32,823 | Δα : Zeit |
| | | | − 1° 8′ 12″,34 | Δα : Bogen |

(258) Tycke (11,5) südlich vom ✱a (g) beide oben

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g. äuss. S. | 56,5 | | 62,5 | | 58 | | 64 | | 60 | | 53 | |
| g. inn. S. | 36 | | 45 | | 38 | | 46 | | 40 | | 31 | |
| S. D. | 92,5 | 20,5 | 107,5 | 17,5 | 96 | 20 | 110 | 18 | 100 | 20 | 84 | 22 |
| g S g D | 1.96614 | 1.31175 | 2.03141 | 1.24304 | 1.98227 | 1.30103 | 2.04139 | 1.25527 | 2,00000 | | 1.92428 | 1.34242 |
| g S cot h S B | 9.82313 v | 9.16874 v | 9.88842 | 9.10005 | 9.83926 v | 9.15802 v | 9.89840 | 9.11228 | 9.85699 v | | 9.78129 | 9.19943 |
| g cos t | 9.87298 | | 9.80200 | | 9.85924 v | | 9.78625 | | 9.84170 v | | 9.90130 v | |
| g cos B | 9.99522 | 378,79 | 9.99653 | | 9.99545 v | 367,20 | 9.99632 v | | 9.99545 v | 352,86 | 9.99449 | |
| a cos t cos B | 2.57840 | 322,65 | 2.50873 | | 2.56490 | 311,01 | 2.59277 v | | 2.54736 | 403,64 | 2.60599 v | |
| Diff | | − 56,14 | | | | − 56,19 | | | | − 50,98 | | |
| | | beide unter | | | | beide unter | | | | beide oben | | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g. äuss. S. | 53 | | 52 | | 56 | | 51,5 | | 54 | | 60 | |
| g. inn. S. | 38 | | 30 | | 36 | | 29,5 | | 34 | | 40 | |
| S. D. | 96 | 20 | 82 | 22 | 92 | 20 | 81 | 22 | 88 | 20 | 100 | 20 |
| g S g D | 1.98227 | | 1.91381 | | 1.96379 | | 1.90849 | | 1.94448 | | 2.00000 | 1.30103 |
| g S cot h S B | 9.83926 v | | 9.77082 | | 9.82078 v | | 9.76550 | | 9.80147 v | | 9.85701 | 9.15804 |
| g cos t | 9.85924 v | | 9.90711 | | 9.87483 | | 9.90989 | | 9.88879 v | | 9.84169 | |
| g cos B | 9.99545 v | 367,20 | 9.99449 | | 9.99545 v | 380,61 | 9.99449 | | 9.99545 v | 393,04 | 9.99545 v | |
| a cos t cos B | 2.56490 | 409,07 | 2.61180 | | 2.58048 v | 411,70 | 2.61458 | | 2.59443 | 352,65 | 2.54734 | |
| Diff | | − 41,87 | | | | − 31,09 | | | | − 40,39 | | |

1890 April 15

*b (8,5) Bonn Berl. VI Bd

1855,0 (8,5) 13h 7 17,19 −9° 39 46,4
(8,5) 7 17,16 39 46,8
beide 1855,0 (8,5) 13h 7 17,175 −9° 39 46,6
196° 49 17,62
+27 28,29 −11 11,06

*b (8,5) 1890,0 197° 16 45,91 −9° 50 57,66
+ 15,55 − 6,75

*b 1890 April 15 197° 17 1,46 −9° 51 4,41
+ 0 30 3,50 + 3,26

10h 56 20,5 197° 47' 4,96 −9 51 1,15
m. 2t. Dif 13h 11 8,34 (258) Tycho (äusserst schwach)
C. w. Par −0,03 +3,67

*b 13785 log sin cos 2.826960
− 671,06
α 197° 3,03
δ −9 45,37 1890 April 15,5 q+α h+z
log 35 1.54407 f − 3,26 50 49 79 22
log cos α 9.98048 n g 0.2235 9.2332 n
log n 1.30221 g 213 32 9.8006 9.2661
log sin α 9.46718 n l 1.2808 0.2235 1.2808
log δ 9.23538 n t 242 5 9.8894 9.9925
log sin δ 0.00477 i 0.8645 n 9.2396 n 0.0064
m 46,0829 0.8645 n
log sin δ +1,0118
47,0939
35
1412817 −9° 51' 9.99355 −3,26 −7,21
2354695 9 Vgl mit *b (8,5) 7.85738 +19,04 −0,60
+1648,2865 +15,55 −6,75

*b (8,5) wie auf S. 258 Tycho (schwach)

| | | | | | |
|---|---|---|---|---|---|
| 11h 54 10,75 | 11h 56 12,25 | + 2m 1,50 | −14,41 | | |
| 54 10,75 | 56 12,50 | 2 1,75 | −21,25 | | |
| 58 37,75 | 12 0 39,25 | 2 1,50 | −6,82 | | |
| 58 37,75 | 6 39,25 | 2 1,50 | −0,30 | | |
| 12 17 7,00 | 19 7,50 | 2 0,50 | + | | |
| 17 7,00 | 17 7,25 | 2 0,25 | + | | |
| 24 27,50 | 26 27,50 | 2 0,00 | = | | |
| 24 27,50 | 26 27,50 | 2 0,00 | + | | |
| 33 14,00 | 35 14,25 | 2 0,25 | 9) + | | |
| 33 14,00 | 35 14,25 | 2 0,25 | Δδ | | |
| 41 13,00 | 43 13,50 | 2 0,50 | | | |
| 41 13,00 | 43 13,85 | 2 0,25 | | | |
| 48 56,50 | 50 56,00 | 1 59,50 | | | |
| 48 56,50 | 50 56,00 | 1 59,50 | | | |
| 57 53,50 | 59 53,00 | 1 59,50 | | | |
| 57 53,50 | 59 53,00 | 1 59,50 | | | |
| 13 4 46,00 | 13 6 45,00 | 1 59,00 | | | |
| 4 46,00 | 6 45,00 | + 1 59,00 | | | |
| | 596 56,25 | 4,25 | | | |

12) 12h 33 9,8 18) ∫ 2m 0,236
−0 43,0 Corr 0,003
12h 32 26,8
1 34 18,47 +2 0,233 Δα = 2m
10h 58 8,33
−1 47,81 +30' 3"50 Δδ = Dg
10h 56 20,5 m 2t Dif

*b (8,5) wie auf S. 258 Tycho (wie 11,5) beide oben

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| g. äuss. | 62,5 | | 60,5 | | 63,5 | | 60,5 | |
| g. in. | 42,5 | | 41 | | 43,5 | | 41,5 | |
| 1 D | 105 | 20 | 101,5 | 19,5 | 107 | 20 | 102 | 19 |
| log log D | 2.02119 | 1.30103 | 2.00647 | 1.29003 | 2.02938 | | 2.00860 | 1.27875 |
| log sin log B | 9.87857 | 9.15841 | 9.86385 | 9.14941 | 9.88676 | | 9.86598 | 9.13613 |
| log cos A | 9.81589 | | 9.83410 | | 9.80446 | | 9.83164 | |
| log B | 9.99545 | 332,31 | 9.99567 | | 9.99545 | 323,68 | 9.99589 | |
| log a cos A sin B | 2.52154 | 346,72 | 2.53997 | | 2.51011 | 34493 | 2.53773 | |
| Diff | | −14,41 | | | | −21,25 | | |

beide unten

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| g. äuss. | 64 | | 63 | | 63 | | 65 | |
| g. in. | 44 | | 43,5 | | 45 | | 45 | |
| 1. D. | 108 | 20 | 106,5 | 19,5 | 108 | 18 | 110 | 20 |
| log log D | 2.03342 | | 2.02735 | | 2.03342 | 1.25527 | 2.04139 | 1.30103 |
| log sin log B | 9.89080 | | 9.88473 | | 9.89080 | 9.11265 | 9.89877 | 9.15841 |
| log cos A | 9.79842 | | 9.80738 | | 9.79846 | | 9.78563 | |
| log B | 9.99545 | 319,21 | 9.99567 | | 9.99632 | 319,85 | 9.99545 | |
| log a cos A sin B | 2.50407 | 326,03 | 2.51325 | | 2.50493 | 309,94 | 2.49128 | |
| Diff | | −6,82 | | | | +9,91 | | |

beide unten

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| g. äuss. | 63 | 62 | | | 63 | 60 | 62 | 60 |
| g. in. | 45 | 44 | | | 45 | 42 | 44 | 42 |
| 1. D | 108 18 | 106 | 18 | | 108 18 | 102 18 | 106 18 | 102 18 |
| log log D | 2.03342 | 2.02531 | 1.25527 | | | 2.00860 | 2.02531 | |
| log sin log B | 9.89080 | 9.88269 | 9.11265 | | | 9.86598 | 9.88269 | |
| log cos A | 9.79841 | 9.81027 | | | | 9.83163 | 9.81027 | |
| log B | 9.99632 | 9.99632 | 319,85 | | 319,85 | 9.99632 | 9.99632 | 328,70 |
| log a cos A sin B | 2.50493 | 2.51679 | 328,70 | | 34527 | 2.53815 | 2.51679 | 345,27 |
| Diff | | | + 8,85 | | + 25,42 | | | + 16,57 |

beide unten

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 64 | 64,5 | | | 64 | 63 | | |
| | 46 | 45,5 | | | 46 | 44,5 | | |
| | 110 18 | 110 19 | | | 110 18 | 109,5 | 18,5 | |
| | 2.04139 | | | | | 2.03141 | 1.26717 | |
| | 9.89877 | | | | | 9.88871 | 9.12455 | |
| | 9.78563 | 9.78563 | | | | 9.80145 | | |
| | 9.99632 | 9.99589 | | | 310,56 | 9.99611 | | |
| | 2.49215 | 2.49172 | | | 321,93 | 2.50776 | | |
| | 310,56 | | | | + 11,38 | | | |
| | 310,26 | | | | | | | |
| | − 0,30 | | | | | | | |

1891 Juli 26.

*a (9,2) (258) Tycho (teilw. 10.11)

| | | | | | |
|---|---|---|---|---|---|
| 19h 9 35,50 | 19 16 40,00 | + 7m 4,50 | + 155,2 | | |
| 9 35,50 | 16 39,50 | 4,00 | 147,9 | | |
| 21 24,25 | 28 28,75 | 4,50 | 129,3 | | |
| 21 24,25 | 28 28,75 | 4,50 | 145,2 | | |
| 34 9,50 | 41 13,50 | 4,00 | 159,8 | | |
| 34 9,25 | 41 13,50 | 4,25 | 161,0 | | |
| 48 58,50 | 56 1,50 | 3,00 | 298,7 | | |
| 48 58,25 | 56 1,00 | 2,75 | 6) | | |
| 20 2 33,75 | 20 9 36,25 | 2,50 | + 149,7 | | |
| 2 34,00 | 9 36,25 | 2,25 | + 2' 2 | | |
| 14 12,50 | 21 15,50 | 3,00 | Δδ | | |
| 14 12,50 | 21 15,50 | 3,00 | | | |
| | 346 30,00 | 42,25 | | | |
| | +240 | 12) | | | |
| | 586 30,00 | +7 3,521 | | | |
| | 19h 48 52,50 | Corr +0,000 | | | |
| | −3 13,88 | +7m 3,521 | Δα = 2 | | |
| | 19h 45 38,62 | +1° 45' 52"82 | Δδ = 4 | | |
| | 8 15 30,06 | | | | |
| | 11 30 8,56 | | | | |
| | −1 53,05 | | | | |
| | 11h 28 15,5 | m 2t Dif | | | |

Kittel

8V. 1891 Juli 26.

*a (9,2) Albany A. G. C. 6904 2 Beob
1875,0 19h 48 49,11 +4° 58 44,9
297° 12 16,65
+ 11 52,43 +2 27,18

*a 1891,0 297° 24 9,08 +5° 1 12,08
+32,67 + 3,61

*a red. auf 1891 Juli 26 297° 24 41,75 +5° 1 15,69
1891 Juli 26. +1 45 52,82 +2 29,73
11h 28m 15,5 299° 10' 34"57 +5° 3' 45"47
m 2t Dif 19h 56 42,30 (258) Tycho (10.11)
Corr w. Par −0,01 +4,93
Coord. Syst. v. Dr Schorkal Zool. N. 3050
−1,27 0,0

1883,0 1891 Juli 26,5 q+α h+z
α 297° 18'21 f +13,32 261° 56' 86° 1'
δ +4 59,97 log f 0,8536 8.9420
log 16 1.20412 q 324 32 9.1471 n 8.8418
log cos δ 9.66153 log k 1.2998 0.8536 1.2998
log n 1.30219 N 148 37 9.9957 n 9.9989
log sin α 9.94870 n log i 0.6537 8.9437 0.0017
log δ 8.94191 0.6537
log sin δ 0.19280 n +13,32 +4,49
m 46,0859 − 0,62 − 1,00
log sin δ −1,5588 +19,97 +0,12
44,5271
16
445271
2671626
+712,4336
log 16 cos α 2,16784
+147,18

*a (9,2) wie auf S. 258 Tycho (teilw. 10.11)

| | | | |
|---|---|---|---|
| 19h 9 35,50 | 19 16 40,00 | + 7m 4,50 | + 155,2 |
| 9 35,50 | 16 39,50 | 4,00 | 147,9 |
| 21 24,25 | 28 28,75 | 4,50 | 129,3 |
| 21 24,25 | 28 28,75 | 4,50 | 145,2 |
| 34 9,50 | 41 13,50 | 4,00 | 159,8 |
| 34 9,25 | 41 13,50 | 4,25 | 161,0 |
| 48 58,50 | 56 1,50 | 3,00 | 298,7 |
| 48 58,25 | 56 1,00 | 2,75 | 6) |
| 20 2 33,75 | 20 9 36,25 | 2,50 | + 149,7 |
| 2 34,00 | 9 36,25 | 2,25 | + 2' 2 |
| 14 12,50 | 21 15,50 | 3,00 | Δδ |
| 14 12,50 | 21 15,50 | 3,00 | |
| | 346 30,00 | 42,25 | |
| | +240 | 12) | |
| | 586 30,00 | +7 3,521 | |
| | 19h 48 52,50 | Corr +0,000 | |
| | −3 13,88 | +7m 3,521 | Δα = 2 |
| | 19h 45 38,62 | +1° 45' 52"82 | Δδ = 4 |
| | 8 15 30,06 | | |
| | 11 30 8,56 | | |
| | −1 53,05 | | |
| | 11h 28 15,5 | m 2t Dif | |

## 1891 Juli 26.

* a (9,2) südlich von (258) Tyche (hell 11 Gr.) oben

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g. äuss. S. | 53 | | 68 | | | 53,5 | | 67,5 | | | 55 | | 67 | | |
| g. inn. S. | 27 | | 51 | | | 29,5 | | 51,5 | | | 32,5 | | 51 | | |
| 1. D | 80 | 26 | 119 | 17 | | 83 | 24 | 119 | 16 | | 87,5 | 22,5 | 118 | 16 | |
| log δ δ | 1.90309 | 1.41497 | 2.07555 | 1.23045 | | 1.91908 | 1.38021 | | 1.20412 | | 1.94201 | 1.35218 | 2.07188 | | |
| log sin A sin B | 9.76525 | 9.27713 | 9.93768 | 9.09258 | | 9.78124 | 9.24237 | | 9.06625 | | 9.80417 | 9.21434 | 9.93401 | | |
| log cos δ | 9.91002 | | 9.69853 | | | 9.90133 | | 9.69853 | | | 9.88696 | | 9.70920 | | |
| log D3 | 9.99207 | 409,54 | 9.99665 | | | 9.99326 | 402,52 | 9.99703 | | | 9.99410 | 390,17 | 9.99703 | | |
| a cos A cos B | 2.61229 | 254,32 | 2.40538 | | | 2.60479 | 254,54 | 2.40576 | | | 2.59126 | 260,87 | 2.41643 | | |
| Diff | | + 155,22 | | | | | + 147,98 | | | | | + 129,30 | | | |
| | | beide unten | | | | | beide unten | | | | | beide unten | | | |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g. äuss. S. | 67 | | 53 | | | 67,5 | | 51,5 | | | 67 | | 49 | | |
| g. inn. S. | 51,5 | | 30 | | | 52 | | 28,5 | | | 51 | | 27 | | |
| 1 D | 118,5 | 15,5 | 83 | 23 | | 119,5 | 15,5 | 80 | 23 | | 118 | 16 | 76 | 22 | |
| log δ δ | 2.07372 | 1.19033 | 1.91908 | 1.36173 | | 2.07737 | | 1.90309 | | | 2.07188 | 1.20412 | 1.88081 | 1.34242 | |
| log sin A sin B | 9.93538 | 9.05249 | 9.78121 | 9.22386 | | 9.93953 | | 9.76522 | | | 9.93404 | 9.06628 | 9.74294 | 9.20455 | |
| log cos δ | 9.70384 | | 9.90135 | | | 9.69285 | | 9.91004 | | | 9.70912 | | 9.92064 | | |
| log D3 | 9.99722 | 257,79 | 9.99382 | | | 9.99722 | 251,34 | 9.99382 | | | 9.99703 | 260,82 | 9.99436 | | |
| a cos A cos B | 2.41126 | 403,06 | 2.60537 | | | 2.40027 | 411,21 | 2.61406 | | | 2.41635 | 421,89 | 2.62520 | | |
| Diff | | + 145,27 | | | | | + 159,87 | | | | | + 161,07 | | | |

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1891 August 9.

* b (8.0) A.G.C. Albany 6815

1875,0 $19^h 37\ 7{,}61\ +3°\ 52\ 47{,}6$

$294°\ 16\ 54{,}15$

$+11\ 59{,}46\ +2\ 12{,}45$

b (8.0) 1891,0 $294°\ 28\ 51{,}61\ +3°\ 55\ 0{,}05$

$+\ 33{,}12\ +\ 5{,}07$

b scheint Aug 9 $294°\ 29\ 24{,}73\ +3°\ 55\ 5{,}12$

1891 Aug 9 $+1°\ 56\ 50{,}28\ +1\ 5{,}01$

$1^h\ 0^m\ 53{,}3$ $296°\ 26'\ 15''{,}01\ +3°\ 56'\ 10''{,}13$

m 2 Dif. $19^h 45\ 45{,}00$ (258) Tyche (10.11)

Corr. w. Par $+0{,}03\ +5{,}03$ Vergl mit * b (8.0)

Corr. d. Eph. w. Dr Strehyl = A.N. 3050

$-1{,}20\ 0{,}0$

1883,0

α $294°\ 22{,}88$

δ $+3\ 53{,}90$

1891 day 9,5

log 16 | log cos α 9.61575

log n 1.30219

log sin α 9.95943 n

log Δδ 8.83342 n

log sin α Δδ 0.09504 n

46,0859

$-1{,}2446$

44,8413

16

448413

269478

$+717{,}4608$

log 16 cos α 2.12206

16 Δδ $+132''{,}45$

| | Q + α | H + α |
|---|---|---|
| | 260° 26' | 69° 56' |
| | | 8.8345 |
| G 325 57 | 9.2206 n | 9.5354 |
| | 0.9046 | 1.2914 |
| | 9.9939 n | 9.9728 |
| | 8.8355 | 0.0010 |
| | | 0.7747 |
| | + 15,24 | + 5,94 |
| | − 0.54 | − 1,33 |
| | + 18,42 | + 0,46 |
| | + 33,12 | + 5,07 |

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* b (8.0) südlich von (258) Tyche (10.11) beide oben

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g. äuss. S. | 53 | | 62 | | | 54 | | 61 | | | | | | | |
| g. inn. S. | 32 | | 44 | | | 34 | | 44 | | | | | | | |
| 1 D | 85 | 21 | 106 | 18 | | 88 | 20 | 105 | 17 | | | | | | |
| log δ δ | 1.92942 | 1.32222 | 2.02531 | 1.25527 | | 1.94448 | 1.30103 | 2.02119 | 1.23045 | | | | | | |
| log sin A sin B | 9.79223 | 9.18503 | 9.88812 | 9.11808 | | 9.80729 | 9.16384 | 9.88400 | 9.09326 | | | | | | |
| log cos δ | 9.89476 | | 9.80245 | | | 9.88479 | | 9.80843 | | | | | | | |
| log D3 | 9.99485 | 397,94 | 9.99623 | | | 9.99533 | 389,33 | 9.99664 | | | | | | | |
| a cos A cos B | 2.59981 | 322,76 | 2.50888 | | | 2.59032 | 327,55 | 2.51527 | | | | | | | |
| Diff | | + 75,18 | | | | | + 61,78 | | | | | | | | |
| | | oben | | | | | unten | | | | | | | | |

* b +3°53,1 T +3°56,2

9.99898 9.99898

7.86281 7.86281

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| g. äuss. S. | 55 | | 62,5 | | | 61 | | 53 | | | 60 | | 53 | | |
| g. inn. S. | 35 | | 44,5 | | | 44 | | 33 | | | 42 | | 33 | | |
| 1 D | 90 | 20 | 107 | 18 | | 105 | 17 | 86 | 20 | | 102 | 18 | 86 | 20 | |
| log δ δ | 1.95424 | | 2.02938 | | | 2.02119 | | 1.93450 | | | 2.00860 | | | | |
| log sin A sin B | 9.81705 | | 9.89219 | | | 9.88400 | | 9.79731 | | | 9.87141 | | | | |
| log cos δ | 9.87770 | | 9.79627 | | | 9.80843 | | 9.89152 | | | 9.82509 | | | | |
| log D3 | 9.99533 | 383,03 | 9.99623 | | | 9.99664 | 327,55 | 9.99533 | | | 9.99623 | 340,03 | | | |
| a cos A cos B | 2.58323 | 318,20 | 2.50270 | | | 2.51527 | 395,41 | 2.59705 | | | 2.53152 | 395,41 | | | |
| Diff | | + 64,83 | | | | | + 67,86 | | | | | + 55,38 | | | |

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* b (8.0) (258) Tyche (10.11) Δα sin Δδ

| | | | | | |
|---|---|---|---|---|---|
| $19^h 45$ | 40,50 | $19^h 53$ | 29,00 | $+7^m$ 48,50 | + 75,18 |
| 45 | 40,00 | 53 | 29,00 | 49,00 | 61,78 |
| 57 | 11,00 | 20 4 | 58,50 | 47,50 | 64,83 |
| 57 | 10,50 | 4 | 58,00 | 47,50 | 67,86 |
| 20 8 | 9,50 | 15 | 57,25 | 47,75 | 55,38 |
| 8 | 9,50 | 15 | 57,25 | 47,75 | 325,03 |
| 20 | 57,50 | 28 | 43,50 | 46,00 | 5) |
| 20 | 57,00 | 28 | 43,50 | 46,50 | + 65,01 |
| 32 | 3,00 | 39 | 49,50 | 46,50 | + 1' 5,01 |
| 32 | 3,00 | 39 | 49,50 | 46,50 | |
| | | 285 | 55,00 | 73,50 | |
| | | − 120 | | 10) + 7 47,350 | |
| | | 165 | 55,00 | Corr. für δ + 0,002 | |
| | | $20^h$ 16 | 35,50 | + 7 47,352 Δα sin Zeit | |
| Δ1 killed | | − 3 | 11,31 | | |
| | | $20^h$ 13 | 24,19 | $+1°\ 56'\ 50''{,}28$ Δα in Bogen | |
| | | 9 10 | 41,84 | | |
| | | 11 2 | 42,35 | | |
| | | − 1 | 48,56 | | |
| | | $11^h 0$ | 53,8 | m 2 Dif. | |

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Von hier an wurden die nebenstehenden Werthe des Ringmicrometers angewandt die auf i. J. 1892 von mir gemachten Plejadenbeobachtungen beruhen

# Tyche

8 VI 1892 December 23 $11^h 30^m 9{,}8^s$ m. Z.

1880,0 (10) $7^h 19^m 51^s{,}17 + 0° 34' 27''{,}2$ M.I 2530 1 Ast

1892,0 $7^h 20^m 28^s{,}187 + 0° 33' 4''{,}74$ M.I 2530
$+ 3{,}737 \quad + 0{,}73$
$7^h 20^m 31^s{,}924 + 0° 33' 5{,}47$
$+ 0\ 44{,}875 \quad - 1\ 8{,}74$
Tyche $7^h 21^m 16{,}799 + 0° 31' 56{,}73$ 6 Tgl.
L. u. P. $- 0^s{,}090 \quad + 3''{,}93$

Tyche erschien 11,4 Grösse

C. d. E. m. R. $-6^s{,}62 \quad -46''{,}3$

C. d. E. in A. N. 3139 $+0^s{,}70 \quad -0''{,}7$
nach Dr Eberhard

| | 1880,0 |
|---|---|
| $\alpha$ | $110° 2'{,}42$ |
| $\delta$ | $+0° 33'{,}77$ |
| cos $\alpha$ | 9.53489n |
| n | 1.30219 |
| sin $\alpha$ | 9.97287 |
| tg $\delta$ | 7.99227 |
| | 9.26733 |
| | 40.1851 |
| m | 46,0868 |
| | 46,271 9n |
| | 92538 |
| | 46271 9 |
| | 55526 28 |
| proc $\alpha$ | 0.83708n |
| | $-6''{,}872$ 12 |
| | 13744 |
| | 6872 |
| | $-82{,}464$ |

| December 23 | | |
|---|---|---|
| $\odot$ | 336 15 | |
| $\alpha$ | 110 7 | |
| H | 357° 34' | |
| $\odot+\alpha$ | 86 22 | |
| cos | 8.8019 | |
| $\varrho$ | 1.2384 | |
| sin | 9.9991 | |
| $\varrho\delta$ | 7.9834 | |
| | 9.2209 | |
| | + 0.17 | |
| f | + 36,40 | |
| | + 19.48 | |
| | + 56,05 | |
| H+$\alpha$ | 107 41 | |
| sin $\delta$ | 7.9833 | |
| cos | 9.4825 | |
| h | 0.3105 | |
| sin | 9.9790 | |
| sec $\delta$ | 0.0000 | |
| | 0.2895 | |
| fi | 9.5755n | + 1,10 |
| cos $\delta$ | 0.0000 | + 0,01 |
| fi cos $\delta$ | 9.5755n | + 1.11 |
| geos | 0.0403 | − 0,38 |
| | 7.7763 | + 0.73 |

| * | Tyche | $\Delta\alpha$ | $\Delta\delta$ |
|---|---|---|---|
| $5^h 30^m 28^s{,}25$ | $5^h 31\ 13{,}75$ | $+0^m 45{,}50$ | |
| 30 28,25 | 31 13,00 | +0 44,75 | |
| 30 29,00 | 30 43,75 | +0 44,75 | |
| 30 28,50 | 30 44,25 | +0 45,75 | |
| 41 19,50 | 42 4,75 | +0 45,25 | |
| 41 19,50 | 42 4,50 | +0 45,00 | |
| 44 17,75 | 45 2,75 | +0 45,00 | − 62,1 |
| 44 17,75 | 45 2,75 | +0 45,00 | − 72,9 |
| 48 20,25 | 49 4,50 | +0 44,25 | − 72,8 |
| 48 20,25 | 49 4,50 | +0 44,25 | − 65,0 |
| 54 20,00 | 55 4,50 | +0 44,50 | − 71,1 |
| 54 19,75 | $5^h 55\ 4{,}25$ | +0 44,50 | − 68,6 |
| $5\ 43\ 1\ 28$ | | $+0^m 44^s{,}875$ | − 68,7 |
| − 1 16,18 | | | |
| 5 41 56,10 | Steinheil | | |
| 18 9 52,90 | | | |
| 11 32 3,20 | | | |
| − 1 53,37 | | | |
| 11 30 9,83 | m. Z. | | |

| * | 1) oben | Tyche | |
|---|---|---|---|
| 69,5 | | 66,5 | |
| 54,5 | | 48 | |
| 124 | 15 | 114,5 | 18,5 |
| 2.09342 | 1.17609 | 2.05881 | 1.26717 |
| 9.99998 | 9.99998 | 9.99998 | 9.99998 |
| 9.95639 | 9.03906 | 9.92178 | 9.13014 |
| 9.62999 | 217,97 | 9.74034 | |
| 9.99738 | 280,15 | 9.99601 | |
| 2.33841 | −62,18 | 2.44739 | |

| | 2) oben | | |
|---|---|---|---|
| 70 | | 66,5 | |
| 55 | | 47,5 | |
| 125 | 15 | 114 | 19 |
| 2.09691 | 1.17609 | 2.05690 | 1.27875 |
| 9.95988 | 9.03906 | 9.91987 | 9.14172 |
| 9.61354 | 209,88 | 9.74469 | |
| 9.99738 | 282,83 | 9.99579 | |
| 2.32196 | −72,95 | 2.45152 | |

| | 3) unten | | |
|---|---|---|---|
| 67 | | 72,5 | |
| 51 | | 55 | |
| 118 | 16 | 127,5 | 17,5 |
| 2.07188 | 1.20412 | 2.10551 | 1.24304 |
| 9.93485 | 9.06709 | 9.96848 | 9.10601 |
| 59° 23,71 | | | |
| 9.70681 | 259,94 | 9.56536 | |
| 9.99702 | 187,43 | 9.99643 | |
| 2.41487 | −72,51 | 2.27283 | |

| | 4) unten | | |
|---|---|---|---|
| 66,5 | | 71,5 | |
| 50,5 | | 54,5 | |
| 117 | 16 | 126 | 17 |
| 2.06819 | 1.20412 | 2.10037 | 1.23045 |
| 9.93116 | 9.06709 | 9.96334 | 9.09342 |
| 58 35,12 | | | |
| 9.71703 | 266,13 | 9.59567 | |
| 9.99702 | 201,07 | 9.99664 | |
| 2.42509 | −65,06 | 2.30335 | |

| | 5) unten | | |
|---|---|---|---|
| 65,5 | | 71 | |
| 50,5 | | 55 | |
| 116 | 15 | 126 | 16 |
| 2.06446 | 1.17609 | 2.10037 | 1.20412 |
| 9.92743 | 9.03906 | 9.96334 | 9.06709 |
| 57 47,50 | | | |
| 9.72673 | 272,36 | 9.59567 | |
| 9.99738 | 201,25 | 9.99702 | |
| 2.43515 | −71,11 | 2.30373 | |

| | 6) oben | | |
|---|---|---|---|
| 70 | | 67 | |
| 55,5 | | 48,5 | |
| 125,5 | 14,5 | 115,5 | 18,5 |
| 2.09864 | 1.16137 | 2.06258 | 1.26717 |
| 9.96161 | 9.02434 | 9.92555 | 9.13014 |
| 9.60480 | 205,78 | 9.73140 | |
| 9.99756 | 274,44 | 9.99601 | |
| 2.31340 | −68,66 | 2.43845 | |

äuss. Radius $564''{,}50$

inn " $463{,}69$

mittl. $R = a$ $514''{,}09$

$f \frac{15}{4a}$ 7.86299

$g\ a$ 2.71104

1892 December 24 $10^h\ 41^m\ 31{,}7^s$ m. Z.

| | | | | |
|---|---|---|---|---|
| 855,0 (g.3) | $7^h\ 19^m\ 52^s{,}52$ | $+0°\ 33'\ 33''{,}6$ | B.B. VI 1949 | |
| 892,0 | $7^h\ 21^m\ 46^s{,}616$ | $+0°\ 29'\ 17''{,}30$ | B.B. VI | |
| | $+\ 3{,}748$ | $+\ 0{,}40$ | | |
| | $7^h\ 21^m\ 50{,}364$ | $+0°\ 29'\ 17''{,}70$ | | |
| | $-\ 1\ 26{,}337$ | $+\ 0{,}59{,}53$ | | |
| Tyche | $7^h\ 20^m\ 24{,}027$ | $+0°\ 30'\ 17''{,}23$ | | 10 Tyc. |
| C.w. Par. | $-0^s{,}125$ | $+3''{,}94$ | | |
| Tyche | $11^m{,}4$ | | | |
| Luft gut | | | | |
| C.d.E. v. N. | $-7^s{,}19$ | $-49''{,}2$ | | |
| C.d.E. nach AN 3139 | $+0^s{,}20$ | $-3''{,}2$ nach Dr Eberhard | | |

1873.5,

| | |
|---|---|
| $\alpha$ | $110°\ 12{,}39$ |
| $\delta$ | $+0°\ 31{,}42$ |
| cos $\alpha$ | 9.53833n |
| n | 1.30221 |
| sin $\alpha$ | 9.97241 |
| tg $\delta$ | 7.96095 |
| | 9.23557 |
| | +0.1720 |
| m | 46,0832 |
| | 46,255237 |
| | 3237864 |
| | 1387656 |
| | 1711.4424 |
| lg cos $\alpha$ | 0.84054n |
| | −6,926937 |
| | 484883 |
| | 207807 |
| | 2562953 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| December 24 | | Tyche | | $\pm$ | | $\Delta\alpha$ | | $\Delta\delta$ | |
| $\odot$ | 336 20' | $4^h$ | $39^m\ 14{,}00^s$ | $4^h$ | $40^m\ 40{,}25^s$ | $-1^m$ | 26,25 | | |
| $\alpha$ | 110 27 | 4 | 39 14,50 | 4 | 40 39.50 | −1 | 25,00 | | |
| H | 356 40 | 4 | 42 30,75 | 4 | 43 56,25 | −1 | 25,50 | | |
| $\odot+\alpha$ | 86 47 | 4 | 42 31,00 | 4 | 43 56,25 | −1 | 25,25 | | |
| cos | 8.7491 | 4 | 45 39.50 | 4 | 47 5,50 | −1 | 26,00 | | |
| g | 1.2401 | 4 | 45 40,25 | 4 | 47 5,50 | −1 | 25,25 | | |
| sin | 9.9993 | 4 | 52 41,00 | 4 | 54 7.50 | −1 | 26,50 | | |
| tg $\delta$ | 7.9305 | 4 | 52 41,00 | 4 | 54 7.00 | −1 | 26,00 | | |
| | 9.1699 | 4 | 56 46,75 | 4 | 58 13,00 | −1 | 26,25 | | |
| | +0.15 | 4 | 56 46,50 | 4 | 58 13,25 | −1 | 26,75 | | |
| t | +36,57 | 5 | 2 24,75 | 5 | 3 48,25 | −1 | 26,50 | + 52,54 | |
| | +19.50 | 5 | 2 22,25 | 5 | 3 48,25 | −1 | 26,00 | 59.24 | |
| | +56,22 | 5 | 6 11.25 | 5 | 7 38,00 | −1 | 26,75 | 59.34 | |
| | | 5 | 6 10,75 | 5 | 7 37.75 | −1 | 27,00 | 60.30 | |
| $H+\alpha$ | 107 7 | 5 | 9 30,25 | 5 | 10 57.50 | −1 | 27,25 | 64,88 | |
| sin $\delta$ | 7.9305 | 5 | 9 30,75 | 5 | 10 57.50 | −1 | 26,75 | 58,80 | |
| cos | 9.4688n | 5 | 12 46,00 | 5 | 14 12,50 | −1 | 26,50 | 54,24 | |
| h | 1.3104 | 5 | 12 45,50 | 5 | 14 12,50 | −1 | 27,00 | 56,56 | |
| sin | 9.9803 | 5 | 16 14.25 | 5 | 17 41.50 | −1 | 27,25 | 65,58 | |
| sec $\delta$ | 0.0000 | 5 | 16 14,50 | 5 | 17 41.50 | −1 | 27,00 | 63,85 | |
| | 1.2907 | 4 | 58 23,62 | | | $-1^m\ 26^s{,}337$ | | + 59″,53 | |
| tgi | 9.7128n | − | 1 17.08 | | | | | | |
| cos $\delta$ | 0.0000 | $4^h$ | 57 6,54 | Sternzeit | | | | | |
| tg i cos $\delta$ | 9.7128n | 18 | 13 49,46 | | | | | | |
| | 9.9892 | 10 | 43 17.08 | | | | | | |
| | 8.7097n | − | 1 45,39 | | | | | | |
| | | $10^h$ | $41^m\ 31{,}69^s$ | m. Z. | | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |
| 60 | 1/oben | 53,5 | | | | | | | |
| 39 | | 29 | | | | | | | |
| 99 | 21 | 82,5 | 24,5 | | | | | | |
| .99564 | 1.32222 | 1.91645 | 1.38917 | | | | | | |
| .99998 | 9.99998 | 9.99998 | 9.99998 | | | | | | |
| 85861 | 9.18519 | 9.77942 | 9.25214 | | | | | | |
| | | 36 59.75 | | | | | | | |
| 83996 | 351,44 | 9.90237 | | | | | | | |
| 99485 | 403,98 | 9.99295 | | | | | | | |
| 54585 | +52,54 | 2.60636 | | | | | | | |
| | | | | | | | | | |
| 61,5 | 2/oben | 53,5 | | | | | | | |
| 40 | | 30,5 | | | | | | | |
| 101,5 | 21,5 | 84 | 23 | | | | | | |
| .00647 | 1.33244 | 1.92428 | 1.36173 | | | | | | |
| | | | | | | | | | |
| 86944 | 9.19541 | 9.78725 | 9.22470 | | | | | | |
| 7 45,73 | | 37 47.12 | | | | | | | |
| .82751 | 341,30 | 9.89780 | | | | | | | |
| .99459 | 400,54 | 9.99380 | | | | | | | |
| 53314 | +59,24 | 2.60264 | | | | | | | |
| | | | | | | | | | |
| 62,5 | 5/oben | 54 | | | | | | | |
| 42 | | 32,5 | | | | | | | |
| 104,5 | 20,5 | 86,5 | 24,5 | | | | | | |
| 01912 | 1.31175 | 1.93702 | 1.33244 | | | | | | |
| | | | | | | | | | |
| 88209 | 9.17472 | 9.79999 | 9.19541 | | | | | | |
| 9 39.73 | | 39 7,19 | | | | | | | |
| 9.81110 | 329.02 | 9.88976 | | | | | | | |
| 9.99509 | 393,90 | 9.99459 | | | | | | | |
| .51723 | +64,88 | 2.59539 | | | | | | | |
| | | | | | | | | | |
| 55,5 | 8/unten | 61 | | | | | | | |
| 32,5 | | 43 | | | | | | | |
| 88 | 23 | 104 | 18 | | | | | | |
| .94448 | 1.36173 | 2.01703 | 1.25527 | | | | | | |
| | | | | | | | | | |
| 80745 | 9.22470 | 9.88000 | 9.11824 | | | | | | |
| | | 49 20,36 | | | | | | | |
| .88469 | 388,63 | 9.81397 | | | | | | | |
| .99380 | 332,07 | 9.99623 | | | | | | | |
| .58953 | +56,56 | 2.52123 | | | | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |
| 61 | 3/oben | 53 | | | | | | | |
| 40,5 | | 31 | | | | | | | |
| 101,5 | 20,5 | 84 | 22 | | | | | | |
| 2.00647 | 1.31175 | 1.92428 | 1.34242 | | | | | | |
| | | | | | | | | | |
| 9.86944 | 9.17472 | 9.78725 | 9.20534 | | | | | | |
| 47 45,73 | | 37 47.12 | | | | | | | |
| 9.82751 | 341,70 | 9.89780 | | | | | | | |
| 9.99509 | 401,04 | 9.99434 | | | | | | | |
| 2.53364 | +59,34 | 2.60318 | | | | | | | |
| | | | | | | | | | |
| 56,5 | 6/unten | 61,5 | | | | | | | |
| 33,5 | | 44,5 | | | | | | | |
| 90 | 23 | 106 | 17 | | | | | | |
| 1.95424 | 1.36173 | 2.02531 | 1.23045 | | | | | | |
| | | | | | | | | | |
| 9.81721 | 9.22470 | 9.88828 | 9.09342 | | | | | | |
| 41 1,86 | | | | | | | | | |
| 9.87758 | 382,32 | 9.80222 | | | | | | | |
| 9.99380 | 323,52 | 9.99664 | | | | | | | |
| 2.58242 | +58,80 | 2.50990 | | | | | | | |
| | | | | | | | | | |
| 54 | 9/unten | 61 | | | | | | | |
| 31 | | 43 | | | | | | | |
| 85 | 23 | | | | | | | | |
| 1.92942 | 1.36173 | | | | | | | | |
| | | | | | | | | | |
| 9.79239 | 9.22470 | | | | | | | | |
| | | | | | | | | | |
| 9.89466 | 397,65 | | | | | | | | |
| 9.99380 | 332,07 | | | | | | | | |
| 2.59950 | +65,58 | | | | | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |
| 62 | 4/oben | 55 | | | | | | | |
| 42 | | 32 | | | | | | | |
| 104 | 20 | 87 | 23 | | | | | | |
| 2.01703 | 1.30103 | 1.93952 | 1.36173 | | | | | | |
| | | | | | | | | | |
| 9.88000 | 9.16400 | 9.80249 | 9.22470 | | | | | | |
| 49 20,36 | | 39 23,33 | | | | | | | |
| 9.81397 | 331,39 | 9.88810 | | | | | | | |
| 9.99533 | 391,69 | 9.99380 | | | | | | | |
| 2.52034 | +60,30 | 2.59294 | | | | | | | |
| | | | | | | | | | |
| 56,5 | 7/unten | 62 | | | | | | | |
| 34,5 | | 43,5 | | | | | | | |
| 91 | 22 | 105,5 | 18,5 | | | | | | |
| 1.95904 | 1.34242 | 2.02325 | 1.26717 | | | | | | |
| | | | | | | | | | |
| 9.82201 | 9.20539 | 9.88622 | 9.13014 | | | | | | |
| 41 35,21 | | 50 18,64 | | | | | | | |
| 9.87387 | 379,54 | 9.80524 | | | | | | | |
| 9.99434 | 325,30 | 9.99601 | | | | | | | |
| 2.57925 | +54,24 | 2.51229 | | | | | | | |
| | | | | | | | | | |
| 54,5 | 10/unten | 61 | | | | | | | |
| 31 | | 43 | | | | | | | |
| 85,5 | 23,5 | | | | | | | | |
| 1.93197 | 1.37107 | | | | | | | | |
| | | | | | | | | | |
| 9.79494 | 9.23404 | | | | | | | | |
| | | | | | | | | | |
| 9.89304 | 395,92 | | | | | | | | |
| 9.99353 | 332,07 | | | | | | | | |
| 2.59761 | +63,85 | | | | | | | | |

1893 Januar 10 $9^h\,7^m\,25.5^s$ m. Z.

1875,0 (8.9) $7^h\,2^m\,9.^s82 + 0°\,39'\,20,''6$ Paris Cal. 8728

1893,0 $7^h\,3^m\,5.^s383 + 0°\,37'\,43,''19$ Paris 8728

$+ 0,913 \quad + 4,81$

$7^h\,3^m\,6.^s296 + 0°\,37'\,48,''00$

$+ 1\;10,417 \quad - 2\;42,50$

Tyche $7^h\,4^m\,16.^s713 + 0°\,35'\,5,''50$ 12 Vgl.

C. 10. Par $-0^s,132 \quad + 3,''90$ $11,^m4$

Corr. Eph. nach Dr Oberhuber $+0,^s39 \quad -2,''9$

1884.0

| | |
|---|---|
| α | 105° 39,40 |
| δ | +0° 38,51 |
| cos α | 9.43116n |
| n | 1.30219 |
| sin α | 9.98358 |
| tg δ | 8.04932 |
| | 9.33509 |
| | + 0.2163 |
| m | 46,0862 |
| | 46,3025 |

Rasche Aufeinanderfolge der Anblicke etwas störend.

| | |
|---|---|
| f cos δ | 0.73335n |
| | 5,4119 |
| f cos δ | 0.8862 |
| (hom.) sin δ | 8.1359v |
| | +7,''69v |
| | + 0,01. |
| | +7.71 |
| | −2.90 |
| Δδ | + 4,81 |

| Januar 10 | ′ | * | | Tyche | | Δα | |
|---|---|---|---|---|---|---|---|
| q | 248° 35′ | $3^h$ | 45 | $10,^s50$ | 3 46 23,00 | +1 | 12,50 |
| α | 105° 46′ | 3 | 45 | 10,50 | 3 46 22,50 | +1 | 12,00 |
| H | 340 42 | 4 | 3 | 25,50 | 4 4 36,75 | +1 | 11,25 |
| q+α | 354 21 | 4 | 3 | 25,50 | 4 4 36,75 | +1 | 11,25 |
| cos | 9.9979 | 4 | 9 | 19.25 | 4 10 29.25 | +1 | 10,00 |
| q | 0.8883 | 4 | 9 | 19,00 | 4 10 29,50 | +1 | 10,50 |
| sin | 8.9932n | 4 | 16 | 32.00 | 4 17 42,50 | +1 | 10,50 |
| tgδ | 8.0400 | 4 | 16 | 31.50 | 4 17 42,50 | +1 | 11,00 |
| | 7.9215n | 4 | 19 | 32,50 | 4 20 43,50 | +1 | 11,00 |
| | −0.01 | 4 | 19 | 32,75 | 4 20 43,50 | +1 | 10,75 |
| f | −6,50 | 4 | 27 | 54,50 | 4 29 5,00 | +1 | 10,50 |
| | −6,51 | 4 | 27 | 54,50 | 4 29 5,25 | +1 | 10,75 |
| | +20,20 | 4 | 32 | 23,25 | 4 33 33,75 | +1 | 10,50 |
| Δd | +13,''69 | 4 | 32 | 23,25 | 4 33 33,75 | +1 | 10,50 |
| H+d | 86 28 | 4 | 37 | 22,50 | 4 38 33,00 | +1 | 10,50 |
| sin δ | 8.0400 | 4 | 37 | 22,00 | 4 38 33,00 | +1 | 11,00 |
| cos | 8.7898 | 4 | 43 | 34,25 | 4 44 44,50 | +1 | 10,25 |
| h | 1.3061v | 4 | 43 | 34,50 | 4 44 43,75 | +1 | 9,25 |
| sin | 9.9992 | 4 | 49 | 24,00 | 4 50 33,75 | +1 | 9,75 |
| sec δ | 0.0000 | 4 | 49 | 24,00 | 4 50 33,50 | +1 | 9,50 |
| | 1.3053v | 5 | 0 | 36,00 | 5 1 45,75 | +1 | 9,75 |
| fi | 0.4626n | 5 | 0 | 36,00 | 5 1 45,00 | +1 | 9,00 |
| cos δ | 0.0000 | 5 | 8 | 14,50 | 5 9 23,00 | +1 | 8,50 |
| f cos δ | 0.4626n | 5 | 8 | 14,25 | 5 9 23,75 | +1 | 9,50 |

| | | | |
|---|---|---|---|
| | 4 30 37.77 | +1m | 10.s417 |
| | − 0 51.42 | | |
| | 4 29 46,35 | Hungsit | |
| | 19 20 50,95 | | |
| | $9^h\,8^m\,55,''40$ | | |
| | −1 29.93 | | |
| | $9^h\,7^m\,25.47$ | m. Z. | |

| * | | 1/oben (258) | | | |
|---|---|---|---|---|---|
| 69 | | 56 | | | |
| 55 | | 33 | | | |
| 124 | 14 | 89 | 23 | | |
| 2.09342 | 1.14613 | 1.94939 | 1.36173 | | |
| 9.99997 | 9.99997 | 9.99998 | 9.99998 | | |
| 9.95638 | 9.00909 | 9.81236 | 9.22470 | | |
| 64 44,83 | | 40 28,73 | | | |
| 9.63004 | 218,17 | 9.88118 | | | |
| 9.99772 | 385,50 | 9.99380 | | | |
| 2.33880 | −167,33 | 2.58602 | | | |

| | | | | | |
|---|---|---|---|---|---|
| 69 | 2/oben | 56,5 | | 69,5 | 3/oben |
| 55 | | 35,5 | | 55 | |
| 124 | | 92 | 21 | 124,5 | 14,5 |
| | | 1.96379 | 1.32222 | 2.09517 | 1.16137 |
| | | 9.82676 | 9.18519 | 9.95813 | 9.02433 |
| | (wie 1) | 218,17 | 9.87006 | | |
| | | 376,66 | 9.99485 | | |
| | | −158,49 | 2.57595 | | |

| | | | | | |
|---|---|---|---|---|---|
| | | 57,5 | | | |
| | | 35 | | | |
| | | 92,5 | 22,5 | | |
| 9.96614 | 1.35218 | | | | |
| 9.82911 | 9.21515 | | | | |
| 42 25,86 | | | | | |
| 9.62197 | 214,08 | 9.86811 | | | |
| 9.99756 | 374,30 | 9.99407v | | | |
| 2.33057 | −160,22 | 2.57322 | | | |

| | | | | | |
|---|---|---|---|---|---|
| 70 | 4/oben | 57 | | 70 | 5/oben |
| 55 | | 35 | | 55,5 | |
| 125 | 15 | 92 | 22 | 125,5 | 14,5 |
| 2.09691 | 1.17609 | 1.96379 | 1.34242 | 2.09864 | 1.16137 |
| 9.95987 | 9.03905 | 9.82676 | 9.20539 | 9.96160 | 9.02433 |
| 65 44,83 | | | | | |
| 9.61359 | 209,90 | 9.87006 | | 9.60486 | 205,80 |
| 9.99738 | 376,22 | 9.99434 | | 9.99756 | 370,22 |
| 2.32201 | −166,32 | 2.57544 | | 2.31346 | −164,42 |

| | | | | | |
|---|---|---|---|---|---|
| | | 57 | | | |
| | | 37 | | | |
| | | 94 | 20 | | |
| 9.97313 | 1.30103 | | | | |
| 9.83610 | 9.16400 | | | | |
| 43 17,15 | | | | | |
| 9.86209 | | | | | |
| 9.99533 | | | | | |
| 2.56846 | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| 53 | 6/unten | 70 | | | |
| 32 | | 51,5 | | | |
| 85 | 21 | 121,5 | 18,5 | | |
| 1.92942 | 1.32222 | 2.08458 | 1.26717 | | |
| 9.79238 | 9.18518 | 9.94755 | 9.13014 | | |
| 38 18,88 | | 62 24,29 | | | |
| 9.89466 | 398,61 | 9.66579 | | | |
| 9.99485 | 235,96 | 9.99601 | | | |
| 2.60055 | −162,65 | 2.37284 | | | |

| | | | | | |
|---|---|---|---|---|---|
| 52,5 | 7/unten | 68,5 | | 52 | 8/unten |
| 30,5 | | 51,5 | | 30 | |
| 83 | 22 | 120 | 17 | 82 | 22 |
| 1.91908 | 1.34242 | 2.07918 | 1.23045 | 1.91381 | 1.34242 |
| 9.78204 | 9.20538 | 9.94215 | 9.09342 | 9.77677 | 9.20538 |
| 37 15,44 | | 61° 4,71 | | | |
| 9.90087 | 403,88 | 9.68450 | | 9.90386 | 406,67 |
| 9.99434 | 246,71 | 9.99664 | | 9.99434 | 246,92 |
| 2.60625 | −157,17 | 2.39218 | | 2.60924 | −159,75 |

| | | | | | |
|---|---|---|---|---|---|
| | | 68 | | | |
| | | 52 | | | |
| | | 120 | 16 | | |
| 2.07918 | 1.20412 | | | | |
| 9.94215 | 9.06709 | | | | |
| | | | | | |
| 9.68450 | | | | | |
| 9.99702 | | | | | |
| 2.39256 | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| 51,5 | 9/unten | 69 | | 51 | 10/unten |
| 29 | | 51,5 | | 28 | |
| 80,5 | 22,5 | 120,5 | 17,5 | 79 | 23 |
| 1.90580 | 1.35218 | 2.08099 | 1.24304 | 1.89763 | 1.36173 |
| 9.76876 | 9.21514 | 9.94396 | 9.10601 | 9.76059 | 9.22469 |
| 35 57,35 | | 61 30,86 | | | |
| 9.90820 | 410,50 | 9.67846 | | 9.91238 | 414,21 |
| 9.99407 | 243,18 | 9.99643 | | 9.99380 | 249,91 |
| 2.61331 | −167,32 | 2.38593 | | 2.61722 | −164,30 |

| | | | | | |
|---|---|---|---|---|---|
| 68,5 | | 51 | | | |
| | | 119,5 | 17,5 | | |
| 2.07737 | 1.24304 | | | | |
| 9.94034 | 9.10601 | | | | |
| | | | | | |
| 9.69032 | | | | | |
| 9.99643 | | | | | |
| 2.39779 | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| 67,5 | | 50 | 11/unten | | |
| | | 26 | | | |
| | | 76 | 24 | 118,5 | 16,5 |
| 2.07372 | 1.21748 | | | | |
| 9.93669 | 9.08045 | | | | |
| 33 39,89 | | | | | |
| 9.92029 | 421,28 | 9.70148 | | | |
| 9.99324 | 256,65 | 9.99683 | | | |
| 2.62457 | −164,63 | 2.40935 | | | |

| | | | | | |
|---|---|---|---|---|---|
| 56 | | 69 | 12/oben | | |
| 32,5 | | 53,5 | | | |
| 88,5 | 23,5 | 122,5 | 15,5 | 88,5 | 23,5 |
| 1.94694 | 1.37107 | 2.08814 | 1.19033 | 1.94694 | 1.37107 |
| 9.80991 | 9.23404 | 9.95110 | 9.05329 | 9.80991 | 9.23404 |
| 40 12,27 | | | | | |
| 9.65230 | 229,38 | 9.88295 | | | |
| 9.99720v | 386,83 | 9.99353 | | | |
| 2.36054 | −157,45 | 2.58752 | | | |

Corr der N. Eph $-7,^s54 \quad -54,''3$

Corr d. Eph. Astr. Nachr. 3139 $+0,^s39 \quad -2,''9$ nach Dr Oberhuber

(230) Tyche

1893 Januar 12 $10^h 6^m 18.9^s$ m. Z.

360,0 ($8^m,9$) $7^h 5^m 8^s,65 + 0° 41' 54''3$ Paris Cal. 8833
+1 41.881 −3 7.94

93,0 $7^h 6^m 50^s.531 + 0° 38' 46''36$ Paris 8833
+ 0,931 + 4,54
$7^h 6^m 51^s,462 + 0° 38' 50''90$
−4 29.672 + 0 56,166
Tyche $7^h 2^m 21^s.790 + 0° 39' 47''56$
w. Par. $-0^s,077$ $+3''88$
r. d. N. Epl $-7^s,62$ $-51''5$
d Epl d N 3139 $+0^s,35$ $-0''9$
nach Dr Stechert

1876,5
α 106° 29' 30
δ +0° 40' 33
cos α 9.45330n
n 1.30220
sin δ 9.98174
tg δ 8.06937
9.35331
+0.2256
m 46,0841
46,3097
10 Vgl.
$11^m,4$
Prot. zurück.
precd 0.75550n
−5,6951

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 66 | 1) oben | x | 60 | | | | | | | | |
| 48 | | | 41 | | | | | | | | |
| 114 | 18 | | 101 | 19 | | | | | | | |
| 05690 | 1.25527 | | 2.00432 | 1.27875 | | | | | | | |
| 99997 | 9.99997 | | 9.99997 | 9.99997 | | | | | | | |
| 91986 | 9.11823 | | 9.86728 | 9.14171 | | | | | | | |
| 74472 | 283,13 | | 9.83010 | | | | | | | | |
| 99623 | 344,29 | | 9.99579 | | | | | | | | |
| 45199 | +61,16 | | 2.53693 | | | | | | | | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 66 | 2) oben | | 60,5 | | | 66,5 | 3) oben | | 61 | | |
| 48 | | | 42,5 | | | 49 | | | 43 | | |
| | | | 103 | 18 | | 115 | 17,5 | | 104 | 18 | |
| | | | 2.01284 | 1.25527 | | 2.06258 | 1.24304 | | 2.01703 | 1.25527 | |
| | | | 9.87580 | 9.11823 | | 9.92554 | 9.10600 | | 9.87999 | 9.11823 | |
| wie 1) | | | | | | | | | 49 20.27 | | |
| | 283,13 | | 9.81954 | | | 9.73142 | 274,72 | | 9.81398 | | |
| | 336,36 | | 9.99623 | | | 9.99643 | 332,08 | | 9.99623 | | |
| | +53,23 | | 2.52681 | | | 2.43889 | +57,36 | | 2.52125 | | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 59 | 4) unten | | 64 | | | | | | | | |
| 39,5 | | | 47 | | | | | | | | |
| 98,5 | 19,5 | | 111 | 17 | | | | | | | |
| 1.99344 | 1.29003 | | 2.04532 | 1.23045 | | | | | | | |
| 9.85640 | 9.15299 | | 9.90828 | 9.09341 | | | | | | | |
| 45 55,62 | | | 57° 3'56 | | | | | | | | |
| 9.84234 | 353,95 | | 9.76860 | | | | | | | | |
| 9.99556 | 299,42 | | 9.99664 | | | | | | | | |
| 2,54894 | +54,53 | | 2,47628 | | | | | | | | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 58,5 | 5) unten | | 63 | | | 58,5 | 6) unten | | 62,5 | | |
| 39 | | | 46,5 | | | 37 | | | 45,5 | | |
| 97,5 | 19,5 | | 109,5 | 16,5 | | 95,5 | 21,5 | | 108 | 17 | |
| 1.98900 | 1.29003 | | 2.03941 | 1.21748 | | 1.98000 | 1.33244 | | 2.03342 | 1.23045 | |
| 9.85196 | 9.15299 | | 9.90237 | 9.08044 | | 9.84296 | 9.19540 | | 9.89638 | 9.09341 | |
| 45 19.69 | | | 53° 0,22 | | | | | | | | |
| 84698 | 357,75 | | 9.77942 | | | 9.85582 | 364,29 | | 9.78958 | | |
| 99556 | 307,11 | | 9.99683 | | | 9.99459 | 314,24 | | 9.99664 | | |
| 55358 | +50,64 | | 2.48729 | | | 2,56145 | +50,05 | | 2.49726 | | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 57,5 | 7) unten | | 62,5 | | | | | | | | |
| 36 | | | 45,5 | | | | | | | | |
| 93,5 | 21,5 | | | | | | | | | | |
| 1.97081 | 1.33244 | | | | | | | | | | |
| 9.83377 | 9.19540 | | | | | | | | | | |
| | | | wie 6) | | | | | | | | |
| 9.86414 | 371.34 | | | | | | | | | | |
| 9.99459 | 314.24 | | | | | | | | | | |
| 2.56977 | +57,10 | | | | | | | | | | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 55,5 | 8) unten | | 62 | | | 65 | 9) oben | | 59,5 | | |
| 35,5 | | | 45 | | | 48 | | | 41,5 | | |
| 91 | 20 | | 107 | 17 | | 113 | 17 | | 101 | 18 | |
| 95904 | 1.30103 | | 2.02938 | 1.23045 | | 2.05308 | 1.23045 | | 2.00432 | 1.25527 | |
| 82200 | 9.16399 | | 9.89234 | 9.09341 | | 9.91604 | 9.09341 | | 9.86728 | 9.11823 | |
| | | | | | | 55° 30,56 | | | | | |
| 87388 | 380,41 | | 9.79604 | | | 9.75302 | 288,87 | | 9.83010 | | |
| 99533 | 318,95 | | 9.99664 | | | 9.99664 | 344,64 | | 9.99623 | | |
| 58025 | +61,46 | | 2.50372 | | | 2.46070 | +55,77 | | 2.53737 | | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 66,5 | 10) oben | | 60,5 | | | | | | | | |
| 50 | | | 43 | | | | | | | | |
| 116,5 | 16,5 | | 103,5 | 17,5 | | | | | | | |
| 2.06633 | 1.21748 | | 2.01494 | 1.24304 | | | | | | | |
| 9.92929 | 9.08044 | | 9.87790 | 9.10600 | | | | | | | |
| 9.72198 | 269,06 | | 9.81679 | | | | | | | | |
| 9.99683 | 334,39 | | 9.99643 | | | | | | | | |
| 2.42985 | +65,33 | | 2.52426 | | | | | | | | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Januar 12 | Tyche | | * | | | | | | Δα | Δδ | |
| g | 249 44 | | $5^h$ | 2 | 36,00 | $5^h$ | $7^m$ | $4^s$,00 | −4 | 28,00 | |
| α | 106 43 | | 5 | 2 | 35,00 | 5 | 7 | 4,00 | −4 | 29,00 | |
| H | 338 45 | | 5 | 11 | 27.00 | 5 | 15 | 55,75 | −4 | 28,75 | |
| g+α | 356 27 | | 5 | 11 | 27.00 | 5 | 15 | 55,25 | −4 | 28,25 | |
| cos | 9.9992 | | 5 | 18 | 36,75 | 5 | 23 | 5,50 | −4 | 28,75 | |
| g | 0.8872 | | 5 | 18 | 36,50 | 5 | 23 | 5,50 | −4 | 29,00 | |
| sin | 8.7918n | | 5 | 27 | 11.50 | 5 | 31 | 41.00 | −4 | 29,50 | |
| tgδ | 8.0522 | | 5 | 27 | 11.75 | 5 | 31 | 41.00 | −4 | 29,25 | |
| | 7.7312n | | 5 | 34 | 12,75 | 5 | 38 | 42,50 | −4 | 29,75 | |
| | −0.01 | | 5 | 34 | 12,50 | 5 | 38 | 42,25 | −4 | 29,75 | |
| f | −6,15 | | 5 | 41 | 40,75 | 5 | 46 | 10,75 | −4 | 30,00 | + 61''16 |
| | −6,16 | | 5 | 41 | 40,50 | 5 | 46 | 10,75 | −4 | 30,25 | 53,23 |
| | +20,13 | | 5 | 49 | 0,75 | 5 | 53 | 30,75 | −4 | 30,00 | 57.36 |
| Δd | +13.97 | | 5 | 49 | 0.00 | 5 | 53 | 30,75 | −4 | 30,75 | 54.53 |
| H+α | 85 28 | | 5 | 55 | 46,25 | 6 | 0 | 17.00 | −4 | 30,75 | 50,64 |
| sinδ | 8.0522 | | 5 | 55 | 46,75 | 6 | 0 | 16,50 | −4 | 29,75 | 50,05 |
| cos | 8.8978 | | 6 | 3 | 22,50 | 6 | 7 | 52,25 | −4 | 29,75 | 57.10 |
| h | 1.3053 | | 6 | 3 | 22,00 | 6 | 7 | 52,75 | −4 | 30,75 | 61,46 |
| sin | 9.9986 | | 6 | 12 | 3,75 | 6 | 16 | 34,75 | −4 | 31.00 | 55,77 |
| secδ | 0.0000 | | 6 | 12 | 4,00 | 6 | 16 | 34,50 | −4 | 30,50 | 65,33 |
| | 1.3039 | | $5^h 37^m 35^s.70$ | | | | | | $-4^m 29^s.675$ | | + 56,66 |
| tgi | 0.5019n | | −0 53,14 | | | | | | Corr. +0,003 | | |
| cosδ | 0.0000 | | | | | | | | | | |
| sicosδ | 0.5019n | | $5^h 36^m 42^s.56$ Sternzeit | | | | | | | | |
| sgcos | 0.8864 | | 19 28 44,06 | | | | | | | | |
| sh(-)ml | 8.2553 | | $10^h 7^m 58,50$ | | | | | | | | |
| | | | −1 39,60 | | | | | | | | |
| | | | $10^h 6^m 18.90$ m. Z. | | | | | | | | |

1893 Febr. 7 Die 4 Tyche-Beob. 27ff mit 1 Prom an Dr Stechert mitgeteilt.
Corr. der Epl in A. N. 3139 im Mittel aus 4 Beob $+0^s,6$. $-0''05$

(258) Tyche

Erscheinung VIII 1895 Juni 12

| | | | | | | |
|---|---|---|---|---|---|---|
| 6,5 | 1885,0 | $17^h\ 56^m\ 26^s,82$ | $-3°\ 9'\ 24''8$ | Valentiner | | |
| | | 26,92 | 22,7 | Karlsruhe II | | |
| | | 26,83 | 23,9 | Seite 197 | | |
| 6,5 | 1885,0 | $17^h\ 56^m\ 26^s,857$ | $-3°\ 9'\ 23''80$ | Valentiner | | |
| | | + 31,463 | − 2,88 | | | |
| | 1895,0 | $17^h\ 56^m\ 58^s,320$ | $-3°\ 9'\ 26''68$ | Karlsruhe III 3 Beob. | m | 46,0879 |
| | | + 2,974 | − 9,58 | | | 47,1938 |
| | | $17^h\ 57^m\ 1^s,294$ | $-3°\ 9'\ 36,26$ | | | |
| | | + 6 31,972 | − 1 20,73 | | | |
| (258) Tyche | | $18^h\ 3^m\ 33^s,266$ | $-3°\ 10'\ 56.99$ | 9 Vgl. | | −0,28786 |

1895 Juni 12 $11^h\ 48^m\ 6^s$ m. Z.

Corr. w. Par. $-0^s,053$ $+4''63$

Corr. d. Eph. von Dr. Stechert in „Mittheil. d. Hbg. Sternw. N:2"

Corr: $-0^s,07$ $+2''3$

Rechn. 18 3 33,288 $-3°$ 10' 54,63

Nach directer Schätzung erschien Tyche $10^m,5$ unter Berücks. der Schwächung d. Dämmerung
Durch Vgl. mit 9.4 B.D. $-2°4560$ schätze ich Tyche $10^m,2$

1890,0
α 269 10,65
δ $-3°$ 9,42
cosα 8.15700 n
n 1.30218
sinα 9.99996 n
tgδ 8.74160 n
0.04374
+ 1.1059
μα 9.45918 n
−0,28786

Juni 12 m Mittel Greenw. $10^m,4$

| Juni 12 | | | | | | | | | Tyche | | Δα | Δδ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| G | 320 | 54 | 16 | 20 | 51,00 | 16 | 27 | 25,00 | + 6 | 34,00 | | |
| ζ | 269 | 15 | 16 | 20 | 50,75 | 16 | 27 | 25,00 | + 6 | 34,25 | | |
| H | 187 | 38 | 16 | 30 | 44,00 | 16 | 37 | 17.00 | + 6 | 33,00 | | |
| Gz | 230 | 9 | 16 | 30 | 44,00 | 16 | 37 | 17.75 | + 6 | 33,75 | | |
| cos | 9.8067 n | | 16 | 41 | 10,25 | 16 | 47 | 42,75 | + 6 | 32,50 | | |
| s | 1.1242 | | 16 | 41 | 10,50 | 16 | 47 | 42,75 | + 6 | 32,25 | | |
| zz | 9.8852 n | | 16 | 51 | 33,75 | 16 | 58 | 6,50 | + 6 | 32,75 | | |
| tgδ | 8.7416 n | | 16 | 51 | 33,00 | 16 | 58 | 5,50 | + 6 | 32,50 | | |
| | 9.7510 | | 17 | 4 | 18,00 | 17 | 10 | 50,25 | + 6 | 32,25 | | |
| | + 0,″56 | | 17 | 4 | 18,50 | 17 | 10 | 49.75 | + 6 | 31,25 | − 93,″8 | |
| f | + 23,75 | | 17 | 18 | 58,25 | 17 | 25 | 30,75 | + 6 | 32,50 | 92,2 | |
| | + 20,30 | | 17 | 18 | 58,75 | 17 | 25 | 29.75 | + 6 | 31,00 | 83,1 | |
| | + 44,61 | | 17 | 30 | 30,75 | 17 | 37 | 1,50 | + 6 | 30,75 | 71,1 | |
| Δα | + 2,974 | | 17 | 30 | 30,50 | 17 | 37 | 2,25 | + 6 | 31,75 | 82,6 | |
| Hzz | 96 | 53 | 17 | 43 | 36,25 | 17 | 50 | 6,00 | + 6 | 29,75 | 81,5 | |
| sinδ | 8.7410 n | | 17 | 43 | 36,50 | 17 | 50 | 7.00 | + 6 | 30,50 | 73,7 | |
| cos | 9.0786 n | | 17 | 54 | 26,25 | 18 | 0 | 57,00 | + 6 | 30,75 | 66,8 | |
| k | 1.3099 | | 17 | 54 | 26,50 | 18 | 0 | 56,50 | + 6 | 30,00 | 81,4 | |
| sin | 9.9969 | | | | | | | | | | | |
| sec | 0.0007 | | | | | | | | | | | |
| | 1.3075 | | | | − 1,″18 | | | | | | | |
| fi | 0.0712 n | | | | − 8,53 | | | | | | | |
| cos | 9.9993 | | | | − 9,71 | | | | | | | |
| fisin | 0.0705 n | | | | + 0,13 | | | | | | | |
| fpsin | 0.9309 n | | | | − 9,″58 | | | | | | | |
| fhsin | 9.1295 | | | | | | | | | | | |

$17^h\ 12^m\ 46^s,28 + 6^m\ 31^s,972 - 80''$
$-\ 0\ 34,05 \quad +0,003$
$17^h\ 12^m\ 12,23 + \chi t$
5 22 10,09
11 50 2,14
$-\ 1\ 56,32$
$11^h\ 48^m\ 5^s,82$ m. Z.

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 65 | 1) oben | 58 | | 65 | 2) oben | 58 | | 51,5 | 3) unten | 62,5 | | | | | |
| 49,5 | | 34 | | 50 | | 35,5 | | 29 | | 42,5 | | | | | |
| 114,5 | 15,5 | 92 | 24 | 115 | 15 | 93,5 | 22,5 | 80,5 | 22,5 | 105 | 20 | | | | |
| 2.05881 | 1.19033 | 1.96379 | 1.38021 | 2.06070 | 1.17609 | 1.97081 | 1.35218 | 1.90580 | 1.35218 | 2.02119 | 1.3010 | | | | |
| 9.92114 | 9.05266 | 9.82611 | 9.24253 | 9.92303 | 9.03842 | 9.83313 | 9.21450 | 9.76813 | 9.21451 | 9.88351 | 9.1633 | | | | |
| 9.74182 | 281,88 | 9.87059 | | 9.73744 | 279.17 | 9.86469 | | 9.90853 | 410,83 | 9.80912 | | | | | |
| 9.99721 | 375,74 | 9.99326 | | 9.99739 | 371.38 | 9.99409 | | 9.99409 | 327.72 | 9.99534 | | | | | |
| 2.45007 | −93,86 | 2.57489 | | 2.44587 | −92,21 | 2.56982 | | 2.61366 | −83,11 | 2.51550 | | | | | |
| 50,5 | 4) unten | 60 | | 49 | 5) unten | 61,5 | | 63,5 | 6) oben | 56,5 | | | | | |
| 28 | | 41 | | 25 | | 39,5 | | 48,5 | | 35,5 | | | | | |
| 78,5 | 22,5 | 101 | 19 | 74 | 24 | 101 | 22 | 112 | 15 | 92,0 | 21 | | | | |
| 1.89487 | 1.35218 | 2.00432 | 1.27875 | 1.86923 | 1.38021 | 2.00432 | 1.34242 | 2.04922 | 1.17609 | 1.96379 | 1.322 | | | | |
| 9.75720 | 9.21451 | 9.86664 | 9.14107 | 9.73156 | 9.24254 | 9.86664 | 9.20474 | 9.91155 | 9.03842 | 9.82611 | 9.184 | | | | |
| 9.91404 | 416,07 | 9.83086 | | 9.92548 | 426,36 | 9.83086 | | 9.76224 | 295,58 | 9.87059 | | | | | |
| 9.99409 | 344,92 | 9.99581 | | 9.99326 | 343,76 | 9.99436 | | 9.99739 | 377,13 | 9.99486 | | | | | |
| 2.61917 | −71,15 | 2.53771 | | 2.62978 | −82,60 | 2.53626 | | 2.47067 | −81,55 | 2.57649 | | | | | |
| 64,5 | 7) oben | 59 | | 65,5 | 8) oben | 60 | | 50,5 | 9) unten | 61 | | | | | |
| 49 | | 37,5 | | 49,0 | | 40 | | 25 | | 41 | | | | | |
| 113,5 | 15,5 | 96,5 | 21,5 | 114,5 | 16,5 | 100 | 20 | 75,5 | 25,5 | 102 | 20 | | | | |
| 2.05500 | 1.19033 | 1.98453 | 1.33244 | 2.05881 | 1.21748 | 2.00000 | 1.30103 | 1.87795 | 1.40654 | 2.00860 | 1.301 | | | | |
| 9.91733 | 9.05266 | 9.84685 | 9.19476 | 9.92114 | 9.07981 | 9.86232 | 9.16335 | 9.74028 | 9.26887 | 9.87092 | 9.163 | | | | |
| 9.75028 | | 9.85209 | | 9.74182 | | 9.83584 | | 9.92181 | | 9.82570 | | | | | |
| 9.99721 | 287,43 | 9.99461 | | 9.99684 | 281,64 | 9.99534 | | 9.99238 | 421,92 | 9.99534 | | | | | |
| | 361,19 | | | | 348,52 | | | | 340,47 | | | | | | |
| 2.45853 | −73,76 | 2.55774 | | 2.44970 | −66,88 | 2.54222 | | 2.62523 | −81,45 | 2.53208 | | | | | |

95 Juni 15

| | | | | |
|---|---|---|---|---|
| 1885,0 | $18^h\ 2^m\ 37^s,84$ | $-2°\ 55'\ 23'',9$ | | Karlsruhe II S. 197 |
| | .83 | | 23,9 | Valentiner |
| | .85 | | 24,8 | 6 Beob. |
| | .91 | | 24,3 | |
| | .91 | | 23,1 | |
| | .91 | | 23,7 | |
| 85,0 | $18^h\ 2^m\ 37^s,875$ | $-2°\ 55'\ 23'',95$ | | Karlsruhe II |
| | + 31,408 | + 2,53 | | |
| 95,0 | $18^h\ 3\ 9,283$ | $-2°\ 55\ 21'',42$ | | Karlsruhe II |
| | + 3,011 | − 8,90 | | |
| | $18^h\ 3\ 12,294$ | $-2°\ 55'\ 30,32$ | | |
| | − 2 16,563 | − 0 49,45 | | |
| ⑧ Tyche | $18^h\ 0^m\ 55^s,731$ | $-2°\ 56'\ 19'',77$ | | 10 Vgl. |

95 Juni 15 $11^h\ 18^m\ 12^s$ m. Z. Gr. $10^m,1$

5 Tage vor der ☽

Corr. w. Par. $-0^s,069$ + 4″,64

rr. d. Eph. $-0^s,205$ − 1″,28

chn. $18^h\ 0\ 55,867$ $-2\ 56\ 13,85$

ch directer Schätzung erschien Tyche nicht schwächer wie $10^m.3$

rch Vgl. mit $9^m.9$ BD $-2°$ 4557 wurde Tyche $9^m.9$ geschätzt
" " " $10^m$ BD $-3°$ 4228 " " 10.2 "
" " " 9.8 BD $-3°$ 4224 " " 10,0 "

1890,0

| | |
|---|---|
| α | 270 43,40 |
| δ | − 2° 55,38 |
| cos α | 8.10120 |
| n | 1.30218 |
| sin α | 9.99997 n |
| fδ | 8.70808 n |
| | 0.01023 |
| | + 1.0238 |
| m | 46,0879 |
| | 47,1117 |
| | |
| prec α | 9.40338 |
| | + 0″,25315 |

| | | | | |
|---|---|---|---|---|
| | | | | − 0,78 |
| | | | | − 8,23 |
| | | | | − 9,01 |
| | | | | + 0,11 |
| | | | | − 8,90 = Δδ |

| Juni 15 | | Tyche | | * | | Δα, | Δδ |
|---|---|---|---|---|---|---|---|
| g | 321 34 | 16 | 2 35,25 | 16 | 4 50,25 | − 2ᵐ 15,00 | |
| α | 270 47 | 16 | 2 35,75 | 16 | 4 50,50 | 2 14,75 | |
| π | 185 2 | 16 | 8 6,75 | 16 | 10 21,25 | 2 14,50 | |
| g+α | 232 21 | 16 | 8 7.00 | 16 | 10 21,50 | 2 14,50 | |
| cos | 9.7859 n | 16 | 14 2,25 | 16 | 16 16,75 | 2 14,50 | |
| g | 1.1296 | 16 | 14 2,25 | 16 | 16 16,75 | 2 14,50 | |
| sin | 9.8986 n | 16 | 45 18,00 | 16 | 47 34,50 | 2 16,50 | |
| fδ | 8.7081 n | 16 | 45 18,25 | 16 | 47 34,25 | 2 16,00 | |
| | 9.7363 | 16 | 51 16,75 | 16 | 53 33,25 | 2 16,50 | |
| | + 0,54 | 16 | 51 17,00 | 16 | 53 33,50 | 2 16,50 | |
| f | + 24,27 | 16 | 57 54,00 | 17 | 0 10,75 | 2 16,75 | − 61″,18 |
| | + 24,81 | 16 | 57 54,50 | 17 | 0 10,75 | 2 16,25 | 62,74 |
| | + 20,36 | 17 | 18 25,00 | 17 | 20 42,75 | 2 17,75 | 52,07 |
| Δα | + 45,17 | 17 | 18 25,50 | 17 | 20 43,00 | 2 17,50 | 49.12 |
| H+α | 95 49 | 17 | 27 59.75 | 17 | 30 17.75 | 2 18,00 | 51,18 |
| sin δ | 8.7076 n | 17 | 27 59.75 | 17 | 30 18,25 | 2 18,50 | 49.91 |
| cos | 9.0058 n | 17 | 36 43,50 | 17 | 39 1,75 | 2 18,25 | 39.07 |
| h | 1.3103 | 17 | 36 43,50 | 17 | 39 2,00 | 2 18,50 | 40.00 |
| sin | 9.9978 | 17 | 43 25,50 | 17 | 45 43,50 | 2 18,00 | 43.96 |
| sin δ | 0.0006 | 17 | 43 25,50 | 17 | 45 44,00 | − 2 18,50 | 45,29 |
| | 1.3087 | $16^h$ | 54 34,79 | | | $-2^m$ 16,562 | − 49″,45 |
| fi | 9.8904 n | − | 0 32,09 | | | − 0,001 | |
| fsin | 9.9994 | $16^h$ | 54 2,70 | + fh | | | |
| ficos | 9.8898 n | 5 | 33 59,75 | | | | |
| fhcos | 9.0237 | $11^h$ | 20 2,95 | | | | |
| fsin | 0.9155 n | − | 1 51,41 | | | | |
| | | $11^h$ | 18 11,54 m. Z. | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 51,5 | 1)oben | 58,5 | | 52,5 | 2)oben | 59,5 | |
| 26,5 | | 40 | | 28 | | 41 | |
| 78 | 25 | 98,5 | 18,5 | 80,5 | 24,5 | 100,5 | 18,5 |
| 89209 | 1.39794 | 1.99344 | 1.26717 | 1.90580 | 1.38917 | 2.00217 | 1.26717 |
| 75451 | 9.26036 | 9.85586 v | 9.12959 v | 9.76822 | 9.25159 | 9.86459 v | 9.12959 v |
| 9.91534 | 415,97 | 9.84291 v | | 9.90848 v | 409,72 v | 9.83325 | |
| 9.99268 | 354,79 | 9.99601 v | | 9.99297 | 346,98 | 9.99601 v | |
| .61906 | − 61,18 | 2.54997 | | 2.61249 v | − 62,74 v | 2.54030 v | |
| 63 | 4)unten | 57 | | 62,5 | 5)unten | 56,5 | |
| 44,5 | | 38,5 | | 44 | | 37 | |
| 107,5 | 18,5 | 95,5 | 18,5 | 106,5 | 18,5 | 93,5 | 19,5 |
| 2.03141 | 1.26717 | 1.98000 | 1.26717 | 2.02735 | 1.26717 | 1.97081 | 1.29003 |
| 9.89383 | 9.12959 | 9.84242 v | 9.12959 v | 9.88977 | 9.12959 | 9.83323 v | 9.15245 v |
| 9.79370 | 316,78 | 9.85632 | | 9.79998 | 321,39 | 9.86460 | |
| 9.99602 | 365,90 | 9.99602 | | 9.99602 | 372,57 | 9.99557 | |
| 2.50076 | − 49.12 | 2.56338 | | 2.50704 | − 51,18 | 2.57121 | |
| 57 | 7)unten | 52,5 | | 56,5 | 8)unten | 50,5 | |
| 37 | | 28 | | 35,5 | | 27,5 | |
| 94 | 20 | 80,5 | 24,5 | 92 | 21 | 78 | 23 |
| 1.97313 | 1.30103 | 1.90580 | 1.38917 | 1.96379 | 1.32222 | 1.89209 | 1.36173 |
| 9.83555 | 9.16345 | 9.76822 v | 9.25159 v | 9.82621 | 9.18464 | 9.75451 v | 9.22415 v |
| 9.86258 | | 9.90848 | | 9.87050 | | 9.91533 | |
| 9.99534 | 370,65 | 9.99297 | | 9.99486 | 377,05 | 9.99382 | |
| 2.56896 | 409.72 | 2.61249 | | 2.57640 | 417.05 | 2.62019 | |
| | − 39,07 | | | | − 40,00 | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 53,5 | 3)oben | 59,5 | | 62 | 6)unten | 55,5 | |
| 30,5 | | 40,5 | | 43 | | 36,5 | |
| 84 | 23 | 100 | 19 | 105 | 19 | 92 | 19 |
| 1.92428 | 1.36173 | 2.00000 | 1.27875 | 2.02119 | 1.27875 | 1.96379 | 1.27875 |
| 9.78670 | 9.22415 | 9.86242 v | 9.14117 v | 9.88361 | 9.14117 | 9.82621 v | 9.14117 v |
| 9.89812 v | 400,85 | 9.83572 | | 9.80898 | 327.96 | 9.87050 | |
| 9.99381 v | 348,78 | 9.99580 | | 9.99580 | 377.87 | 9.99580 | |
| 2.60298 | − 52,07 | 2.54256 | | 2.51582 | − 49,91 | 2.57734 | |
| | | | | 55 | 9)oben | 59,5 | |
| | | | | 31 | | 40 | |
| | | | | 86 | 24 | 99,5 | 19,5 |
| | | | | 1.93450 | 1.38021 | 1.99782 | 1.29003 |
| | | | | 9.79692 | 9.24263 | 9.86024 v | 9.15245 v |
| | | | | 9.89178 | | 9.83816 | |
| | | | | 9.99326 | 394,53 | 9.99557 | |
| | | | | 2.59608 | 350,57 | 2.54477 | |
| | | | | | − 43,96 | | |

(258) Tyche

| | | | |
|---|---|---|---|
| 54 | 10/oben | 59 | |
| 31 | | 40 | |
| 85 | 23 | 99 | 19 |
| 1.92942 | 1.36173 | 1.99564 | 1.27875 |
| 9.79184 | 9.22415 | 9.85806v | 9.14117v |
| 9.89499v | 397,97 | 9.84055 | |
| 9.99381v | 352,68 | 9.99580 | |
| 2.59985 | −45,29 | 2.54739 | |

1887.5
α 268 27.50
δ −2° 35,83
cos α 8.42982 n
n 1.30218
sin α 9.99984 n
tg δ 8.65667 n
9.95869
+ 0,9093
m 46,0872
46,9965
[illegible] 9.73200n
−0,5395

1895 Juni 20

| | | | | | | |
|---|---|---|---|---|---|---|
| + 1880,0 | (10m) | 17h | 53m | 26,52 | −2° 35′ | 42,9 MI 15100 1 Beob. |
| | 9.5 | 17 | 53 | 26,52 | −2 35 | 48.0 MII 6982 |

+ 46,996 − 8,09

| | | | | | |
|---|---|---|---|---|---|
| 1895,0 | 17h | 54m | 13,516 | −2° 35′ | 50,99 MI |
| | | | 13,516 | | 56,09 MII |

| | | | | | |
|---|---|---|---|---|---|
| 1895,0 | 17h | 54m | 13,516 | −2° 35′ | 53,54 ½(MI 15100 + MII 6982) |
| | + | | 3,074 | | − 8,74 |
| | 17h | 54m | 16,590 | −2° 36′ | 2,28 |
| | + | 2 | 5,113 | + | 0 40,71 |
| (258) Tyche | 17 | 56 | 21,703 | −2° 35′ | 21,57 10 Vgl. |

Corr. w. Par. − 0,015 + 4,67

Corr. d. Eph. − 0,331 − 0,03

Grösse 10m,6 nach Schätzung

Rechn 17h 56 22,019 − 2° 35 16,87

1895 Juni 20 11h 46m 59s m. Z.

| Juni 20 | | * | | Tyche | | Δα | Δδ |
|---|---|---|---|---|---|---|---|
| g | 322 37 | 17 9 | 42,75 | 17h 11 | 49.25 | + 2m 6,50 | |
| d | 268 33 | 17 9 | 43,00 | 17 11 | 49.00 | + 2 6,00 | |
| Æ | 180 38 | 17 15 | 52,00 | 17 17 | 58,00 | + 2 6,00 | |
| g+d | 231 10 | 17 15 | 52,50 | 17 17 | 58,50 | + 2 6,00 | |
| cos | 9.7973 n | 17 23 | 4,75 | 17 25 | 11,00 | + 2 6,25 | |
| g | 1.1389 | 17 23 | 5,50 | 17 25 | 11.00 | + 2 5,50 | |
| sin | 9.8915 n | 17 29 | 8,50 | 17 31 | 14,00 | + 2 5,50 | |
| tgδ | 8.6568 n | 17 29 | 8,75 | 17 31 | 14,50 | + 2 5,75 | |
| | 9.6872 | 17 35 | 23,00 | 17 37 | 28,50 | + 2 5,50 | |
| | + 0,49 | 17 35 | 23,00 | 17 37 | 28,50 | + 2 5,50 | |
| f | + 25,16 | 17 44 | 35,50 | 17 46 | 40,75 | + 2 5,25 | + 35,49 |
| | + 20,46 | 17 44 | 35,75 | 17 46 | 40,50 | + 2 4,75 | 37.73 |
| | + 46,11 | 17 50 | 56,75 | 17 53 | 2,00 | + 2 5,25 | 42,85 |
| Δd | + 3,074 | 17 50 | 57.25 | 17 53 | 1,50 | + 2 4,25 | 36,24 |
| H+d | 89 11 | 18 1 | 14,00 | 18 3 | 17.75 | + 2 3,75 | 40,03 |
| sinδ | 8.6564 n | 18 1 | 14,00 | 18 3 | 18,00 | + 2 4,00 | 41,85 |
| cos | 8.1539 | 18 6 | 47.00 | 18 8 | 51,25 | + 2 4,25 | 42,77 |
| h | 1.3106 | 18 6 | 47.25 | 18 8 | 51,50 | + 2 4,25 | 35,77 |
| sin | 0.0000 | 18 13 | 11.75 | 18 15 | 15,75 | + 2 4,00 | 44,77 |
| secδ | 0.0004 | 18 13 | 11.75 | 18 15 | 15,75 | + 2 4,00 | + 49,54 |
| | 1.3110 | | | | | | |
| fi | 8.9912 n | | | 17h 43m | 4,85 | +2m 5,112 | + 40,71 |
| cosδ | 9.9996 | | | − 0 | 27,11 | + 0,001 | |
| fiδ | 8.9908 n | −0,10 | | 17h 42m | 37,74 | *ζ | |
| fiα | 8.1209 n | −0,01 | | 5 53 | 42,53 | | |
| fiφ | 0.9362 n | −8,63 | | 11 48 | 55,21 | | |
| | | − 8,74 | | − 1 | 56,14 | | |
| | | | | 11h 46m | 59,07 | m. Z. | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 58,5 | 1/unten | 55,5 | | 58 | 2/unten | 54 | |
| 40 | | 32 | | 39 | | 31 | |
| 98,5 | 18,5 | 87,5 | 23,5 | 97 | 19 | 85 | 23 |
| 1.99344 | 1.26717 | 1.94201 | 1.37107 | 1.98677 | 1.27875 | 1.92942 | 1.36173 |
| 9.85598 | 9.12971 | 9.80456 | 9.23362 | 9.84931 | 9.14129 | 9.79197 | 9.22428 |
| 9.84280 | 354,69 | 9.88669 | | 9.84966 | 360,17 | 9.89492 | |
| 9.99601 | 390,18 | 9.99354 | | 9.99580 | 397.90 | 9.99381 | |
| 2.54985 | +35,49 | 2.59127 | | 2.55650 | +37,73 | 2.59977 | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 54,5 | 3/oben | 60 | | 55 | 4/oben | 60 | |
| 33 | | 40 | | 33,5 | | 39 | |
| 87,5 | 21,5 | 100 | 20 | 88,5 | 21,5 | 99 | 21 |
| 1.94201 | 1.33244 | 2.00000 | 1.30103 | 1.94694 | 1.33244 | 1.99564 | 1.32222 |
| 9.80455 | 9.19498 | 9.86255 | 9.16358 | 9.80948 | 9.19498 | 9.85819 | 9.18477 |
| 9.88670 | 391,15 | 9.83558 | | 9.88326 | | 9.84042 | |
| 9.99460 | 348,30 | 9.99533 | | 9.99460 | 388,06 | 9.99486 | |
| 2.59234 | +42,85 | 2.54195 | | 2.58890 | 351,82 +36,24 | 2.54632 | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 56 | 5/oben | 61 | | 59 | 6/unten | 54,5 | |
| 35 | | 41 | | 39,5 | | 31 | |
| 91 | 21 | 102 | 20 | 98,5 | 19,5 | 85,5 | 23,5 |
| 1.95904 | 1.32222 | 2.00860 | 1.30103 | 1.99344 | 1.29003 | 1.93197 | 1.37107 |
| 9.82158 | 9.18476 | 9.87115 | 9.16358 | 9.85598 | 9.15257 | 9.79452 | 9.23362 |
| 9.87421 | | 9.82542 | | 9.84280 | | 9.89331 | |
| 9.99486 | 380,28 | 9.99533 | | 9.99557 | 354,33 | 9.99354 | |
| | 340,25 | | | | 396,18 | | |
| 2.58011 | +40,03 | 2.53179 | | 2.54941 | +41,85 | 2.59789 | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 58,5 | 7/unten | 54 | | 52 | 8/oben | 56,5 | |
| 38,5 | | 29 | | 28 | | 36 | |
| 97 | 20 | 83 | 25 | 80 | 24 | 92,5 | 20,5 |
| 1.98677 | 1.30103 | 1.91908 | 1.39794 | 1.90309 | 1.38021 | 1.96614 | 1.31175 |
| 9.84931 | 9.16357 | 9.78163 | 9.26049 | 9.76563 | 9.24275 | 9.82869 | 9.17430 |
| 9.84966 | 359.77v | 9.90111 | | 9.90982v | 411,26 | 9.86846 | |
| 9.99533 | 402,55 | 9.99267 | | 9.99325 | 375,49 | 9.99510 | |
| 2.55603 | +42,77v | 2.60482 | | 2.61411v | +35,77 | 2.57460 | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 52 | 9/oben | 57,5 | | | | | |
| 28,5 | | 38 | | | | | |
| 80,5 | 23,5 | 95,5 | 19,5 | | | | |
| 1.90580 | 1.37107 | 1.98000 | 1.29003 | | | | |
| 9.76834 | 9.23361 | 9.84255 | 9.15257 | | | | |
| 9.90842v | 410,27 | 9.85620 | | | | | |
| 9.99254 | 365,43 | 9.99557 | | | | | |
| 2.61300v | +44,77v | 2.56281 | | | | | |

(238) Ägine

| | | | |
|---|---|---|---|
| 59,5 | 10/unten | 52,5 | |
| 39,5 | | 31,5 | |
| 99 | 20 | 84 | 21 |
| 99564 | 1.30103 | 1.92428 | 1.32222 |
| 35818 | 9.16357 | 9.78683 | 9.18477 |
| 34043 | 352,21 | 9.89805 | |
| 99533 | 401,75 | 9.99486 | |
| 54680 | +49,54 | 2.60395 | |

| | 1887,5 | 1880,0 |
|---|---|---|
| α | 270° 31.19 | 270° 25.26 |
| δ | −2° 32,35 | −2 32,40 |
| cos | 7.95773 | 7.86615 |
| n | 1.30218 | 1.30220 |
| sin | 9.99998 n | 9.99999 n |
| tgδ | 8.64685 n | 8.64700 n |
| | 9.94901 v | 9.94919 |
| | +0,8892 | +0,8896 |
| m | 46,0872 | 46,0851 |
| Δα | 46,9764 | 46,9747 |
| mcosδ | 9.25991 | 9.16835 |
| | +0,1819 | +0,1473 v |

| | Juni 21 | Tycho | | | Δα | Δδ |
|---|---|---|---|---|---|---|
| | 9 322 49 | 16 44 56,00 | 16 51 58,50 | − 7 | 2,50 | |
| | α 270 37 | 16 44 55,75 | 16 51 58,50 | 7 | 2,75 | |
| | H 179 46 | 16 55 43,50 | 17 2 46,25 | 7 | 2,75 | |
| | 9+α 233 26 | 16 55 43,25 | 17 2 46,50 | 7 | 3,25 | |
| | cos 9.7751 n | 17 11 58,50 | 17 19 2,50 | 7 | 4,00 | |
| | 9 1.1408 | 17 11 58,25 | 17 19 2,00 | 7 | 3,75 | |
| | sin 9.9048 n | 17 24 20,25 | 17 31 24,75 | 7 | 4,50 | |
| | tgδ 8.6468 n | 17 24 20,25 | 17 31 25,25 | 7 | 5,00 | |
| | 9.6924 | 17 37 51,25 | 17 44 56,00 | 7 | 4,75 | |
| | +0,49 | 17 37 51,50 | 17 44 56,25 | 7 | 4,75 | |
| f | +25,34 | 17 50 27,25 | 17 57 32,50 | 7 | 5,25 | + 35,86 |
| | +20,46 | 17 50 27,50 | 17 57 32,75 | 7 | 5,25 | 39.85 |
| Δα | +46,29 | 18 2 38,25 | 18 9 44,00 | 7 | 5,75 | 39,01 v |
| H+α | 90 23 | 18 2 38,25 | 18 9 44,25 | 7 | 6,00 | 39.89 |
| sinδ | 8.6464 n | 18 14 13,00 | 18 21 19,75 | 7 | 6,75 | 41,12 |
| cos | 7.8255 n | 18 14 13,75 | 18 21 20,00 | 7 | 6,25 | 42,45 |
| 9 | 1.3106 | 18 27 36,50 | 18 34 43,50 | 7 | 7,00 | 43,82 |
| sin | 0.0000 | 18 27 36,75 | 18 34 43,75 | 7 | 7,00 | 47.09 |
| secδ | 0.0004 | 18 40 8,00 | 18 47 15,00 | 7 | 7,00 | 47.28 v |
| | 1.3110 | 18 40 8,50 | 18 47 15,50 | − 7 | 7,00 | 57.30 |
| | tf 8.5599 | | | | | |
| | cosδ 9.9996 | 17h 42m 59,31 | | −7m 5,062 | | + 43,37 |
| | sinδ 8.5595 | − 26,36 | | − 0,004 | | |
| | Δα cos 0.9159 n | 17h 42m 32,95 + f | | | | |
| | Δα sin 7.7825 | 5 57 39,09 | | | | |
| | | +0,04 | 11h 44m 53,86 | | | |
| | | +0,01 | − 1 55,48 | | | |
| | | +0,05 | 11h 42m 58,38 m.Z. | | | |
| | | −8,24 | | | | |

1) 1880,0 18h 1m 41,37 −2° 32′ 22,″5 M.I 15436 5 Beob.
+ 46,976 + 2,73

1) 1865,0 18 0 53,98 −2 32 27,3 tf. 6549
+1 33,949 + 4,42

1895,0 18h 2 28,346 − 2° 32′ 19,″77 MI 5 Beob
27,929 22,88 tf.

1895,0 18h 2m 28,207 − 2° 32′ 20,″81 ⅓(2 MI 15436 + tf 6549)
+ 3,086 − 8,19
18h 2m 31,293 −2° 32 29,″00
−7 5,066 + 0 43,37
1) Tycho 17h 55m 26,227 −2° 31′ 45,″63 10 Vgl.

1895 Juni 21 11h 42m 58s m.Z. Grosse 10m,7 geschätzt.

Corr. w. Pr. − 0s,014 + 4,″67
Rechn. 17h 55 26,923 − 2° 31′ 43,″07
Corr. d. Eph. − 0s,710 + 2,″11

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 56 | 1/oben | 51 | | 57 | 2/oben | 51,5 | |
| 33,5 | | 25 | | 35,5 | | 27 | |
| 89,5 | 22,5 | 76 | 26 | 92,5 | 21,5 | 78,5 | 24,5 |
| 95182 | 1.35218 | 1.88081 | 1.41497 | 1.96614 | 1.33244 | 1.89487 | 1.38917 |
| 81439 | 9.21475 | 9.74337 v | 9.27753 v | 9.82871 | 9.19501 | 9.75743 v | 9.25173 v |
| 87969 | | 9.92045 | | 9.86845 | | 9.91393 | |
| 99409 | 384,43 | 9.99206 | | 9.99460 | 375,05 | 9.99297 | |
| 58482 | 420,29 | 2.62355 | | 2.57409 | 414,90 | 2.61794 | |
| | +35,86 | | | | +39,85 | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 53 | 3/unten | 58 | | 51,5 | 4/unten | 56,5 | |
| 30,5 | | 38 | | 27,5 | | 36,5 | |
| 83,5 | 22,5 | 96 | 20 | 79 | 24 | 93 | 20 |
| 1.92169 | 1.35218 | 1.98227 | 1.30103 | 1.89763 | 1.38021 | 1.96848 | 1.30103 |
| 9.78426 | 9.21475 | 9.84483 v | 9.16359 v | 9.76020 | 9.24278 | 9.83104 v | 9.16359 v |
| 9.89957 | | 9.85404 | | 9.91257 v | 413,87 | 9.86648 | |
| 9.99409 | 402,44 | 9.99533 | | 9.99325 | 373,98 | 9.99533 | |
| 2.60470 | 363,42 v | 2.56041 | | 1.61686 v | +39,89 | 2.57285 | |
| | +39,01 v | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 52,5 | 6/unten | 58 | | 53,5 | 5/unten | 58 | |
| 29 | | 37,5 | | 31 | | 39,5 | |
| 81,5 | 23,5 | 95,5 | 20,5 | 84,5 | 22,5 | 97,5 | 18,5 |
| 1.91116 | 1.37107 | 1.98000 | 1.31175 | 1.92686 | 1.35218 | 1.98900 | 1.26717 |
| 9.77373 | 9.23364 | 9.84256 v | 9.17431 v | 9.78943 | 9.21475 | 9.85156 v | 9.12973 v |
| 9.90553 | 407.48 | 9.85619 | | 9.89647 | 399.57 | 9.84738 v | |
| 9.99354 | 365,03 | 9.99510 | | 9.99409 | 358,45 | 9.99601 | |
| 2.61011 | +42,45 | 2.56233 | | 2.60160 | +41,12 | 2.55443 v | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 51,5 | 7/unten | 57 | | 56 | 8/oben | 50,5 | |
| 26,5 | | 36,5 | | 37,5 | | 26 | |
| 78 | 25 | 93,5 | 20,5 | 93,5 | 18,5 | 76,5 | 24,5 |
| 89209 | 1.39794 | 1.97081 | 1.31175 | 1.97081 | 1.26717 | 1.88366 | 1.38917 |
| 75466 | 9.26051 | 9.83337 v | 9.17431 v | 9.83338 | 9.12974 | 9.74622 v | 9.25173 v |
| 9.91527 | 415,89 | 9.86448 | | 9.86448 | 372,85 | 9.91918 | |
| 9.99267 | 372,07 | 9.99510 | | 9.99601 | 419.94 | 9.99297 | |
| 2.61898 | +43,82 | 2.57062 | | 2.57153 | +47,09 | 2.62319 | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 58 | 9/oben | 52 | | | | | |
| 37,5 | | 27,5 | | | | | |
| 95,5 | 20,5 | 79,5 | 24,5 | | | | |
| 1.98000 | 1.31175 | 1.90037 | 1.38917 | | | | |
| 9.84257 | 9.17432 | 9.76293 v | 9.25173 v | | | | |
| 9.85618 | 365,02 v | 9.91121 | | | | | |
| 9.99510 | 412,31 | 9.99297 | | | | | |
| 2.56232 | +47,28 v | 2.61522 | | | | | |

| | | | |
|---|---|---|---|
| 60 | 10/oben | 52 | |
| 39 | | 29 | |
| 99 | 21 | 81 | 23 |
| 1.99564 | 1.32222 | 1.90849 | 1.36173 |
| 9.85821 | 9.18479 | 9.77105 v | 9.22429 v |
| 9.84039 v | 351,80 | 9.90698 | |
| 9.99486 | 409,10 | 9.99381 | |
| 2.54629 v | +57,30 | 2.61183 | |

| | 1860,0 | 1887,5 |
|---|---|---|
| α | 268 19,9 | 268 40,40 |
| δ | −2° 17,09 | −2 17,96 |
| cos | 8.46837 n | 8.36460 n |
| n | 1.30223 | 1.30218 |
| sin | 9.99981 n | 9.99988 n |
| tg δ | 8.60286 n | 8.60371 n |
| | 9.90490 | 9.90577 |
| | + 0,8033 | + 0,8049 v |
| m | 46,0794 | 46,0872 |
| Δα | 46,8827 | 46,8921 v |
| [illegible] | 9.77060 n | 9.66678 n |

1895 Juni 26

+ 9m 1825,0 17h 51m 26s,264 −2° 17′ 22″,62 B.Z. 173 nach Luthers Tafeln
+3 38,786 − 41,28

1880,0 17 54 18,41 −2 17 49″,2 M.I 15138 1 Beob.
1880,0 17 54 18,08 −2 17 58,4 Warschau Seite 115 1 Beob
+ 46,892 − 6,96

1895,0 17h 55m 5s,050 −2° 18′ 3″,90 B.Z. 173
5,302 17 56,16 M.I ?
4,972 18 5,36 Warschau

1895,0 17h 55m 5s,108 −2° 18′ 1″,81 ⅓ (B.Z. 173 + M.I 15138 + Warschau S. 115)
+ 3,134 − 7,97
17h 55m 8s,242 −2° 18′ 9,78
4 16,203 + 1 1,34
(258) Tyche 17h 50m 52s,039 −2° 17′ 8,44

10 Vgl.

1895 Juni 26 11h 16m 0s m.Z.

Juni 26 Groesse 10.2

Corr. w. Par. −0s,017 + 4″,68

Rechn. 17h 50 52,036 −2° 17′ 1,64

Corr. d. Eph. − 0s,014 − 2″,12

Nach directer Schätzung war Tyche 10m.2

Durch Vgl. mit 9.8 BD −2° 4502 erschien Tyche 10.2
" " " 9.8 BD −2° 4506 " " 10.3

| Juno 26 | | Tyche | | | | Δα | Δδ |
|---|---|---|---|---|---|---|---|
| q | 323 45 | 16 | 52m 52s,00 | 16 | 57 6,00 | − 4m 14,00 | |
| α | 268 46 | 16 | 52 51,25 | 16 | 57 5,50 | 4 14,25 | |
| H | 175 24 | 17 | 1 54,75 | 17 | 6 9,75 | 4 15,00 | |
| q+α | 232° 31′ | 17 | 1 55,25 | 17 | 6 9,75 | 4 14,50 | |
| q | 1.1503 | 17 | 12 10,75 | 17 | 16 26,00 | 4 15,25 | |
| sin | 9.8996 n | 17 | 12 10,75 | 17 | 16 25,50 | 4 14,75 | |
| tg δ | 8.6038 n | 17 | 21 34,00 | 17 | 25 50,25 | 4 16,25 | |
| | 9.6537 | 17 | 21 34,25 | 17 | 25 50,00 | 4 15,75 | |
| | + 0.45 | 17 | 32 17.75 | 17 | 36 33,75 | 4 16,00 | |
| f | +26,22 | 17 | 32 17.50 | 17 | 36 33,75 | 4 16,25 | |
| | + 20,34 | 17 | 40 25,25 | 17 | 44 42,00 | 4 16,75 | + 62″,65 |
| Δα | +47,01 | 17 | 48 25,50 | 17 | 44 42,00 | 4 16,50 | 61,93 |
| H+α | 84 10 | 17 | 50 49,50 | 17 | 55 6,50 | 4 17,00 | 50,74 |
| sin δ | 8.6035 n | 17 | 50 49,75 | 17 | 55 6,50 | 4 16,75 | 59.69 |
| cos | 9.0070 | 18 | 0 18,75 | 18 | 4 35,50 | 4 16,75 | 58,33 |
| h | 1.3103 | 18 | 0 18,75 | 18 | 4 35,50 | 4 16,75 | 58,66 |
| sin | 9.9977 | 18 | 8 7.00 | 18 | 12 25,00 | 4 18,00 | 69.90 |
| sec δ | 0.0003 | 18 | 8 7,50 | 18 | 12 25,00 | 4 17,50 | 63,28 |
| | 1.3083 | 18 | 15 19,25 | 18 | 19 37.25 | 4 18,00 | 61,34 |
| gj | 9.8517 | 18 | 15 19.75 | 18 | 19 37.75 | 4 18,00 | 66,83 |
| fcos δ | 9.9997 | | | | | | |
| fsin δ | 9.8514 | 17h | 35m 34s,96 | | | −4m 16s,200 | + 61″,3 |
| fcos | 0.9346 n | | − 0 22,36 | | | − 0,003 | |
| fsec | 8.9208 n | 17h | 35m 12,60 | + zt | | | |
| | | 6 | 17 21,91 | | | | |
| | − 0,08 | 11 | 17 50,69 | | | | |
| | − 8,60 | | − 1 51,05 | | | | |
| | − 8,68 | 11h | 15m 59s,64 | m.Z. | | | |
| | + 0,71 | | | | | | |

| | | | |
|---|---|---|---|
| 60 | 11/oben | 52 | |
| 40,5 | | 29 | |
| 100,5 | 19,5 | 81 | 23 |
| 2.00217 | 1.29003 | 1.90849 | 1.36173 |
| 9.86482 | 9.15268 | 9.77113 | 9.22437 |
| 9.83298 | | 9.90693 v | |
| 9.99557 | 346,41 | 9.99381 | |
| 2.53954 | 409,06 +62,65 | 2.61178 v | |

| | | | |
|---|---|---|---|
| 61,5 | 2/oben | 52,5 | |
| 40,5 | | 31,5 | |
| 102 | 21 | 84 | 21 |
| 2.00860 | 1.32222 | 1.92428 | 1.322 |
| 9.87125 | 9.18487 | 9.78692 | 9.1848 |
| 9.82529 | | 9.89800 | |
| 9.99485 | 339.77 | 9.99485 v | |
| 2.53118 | 401,70 +61.93 | 2.60389 v | |

| | | | |
|---|---|---|---|
| 54,5 | 3/unten | 59 | |
| 29,5 | | 41 | |
| 84 | 25 | 100 | 18 |
| 1.92428 | 1.39794 | 2.00000 | 1.25527 |
| 9.78693 | 9.26059 | 9.86264 | 9.11791 |
| 9.89800 | 399,68 | 9.83548 | |
| 9.99267 | 348,94 | 9.99623 | |
| 2.60171 | +50,74 | 2.54275 | |

| | | | |
|---|---|---|---|
| 52 | 4/unten | 58,5 | |
| 26,5 | | 40 | |
| 78,5 | 25,5 | 98,5 | 18,5 |
| 1.89487 | 1.40654 | 1.99344 | 1.26717 |
| 9.75752 | 9.26919 | 9.85608 | 9.12981 |
| 9.91389 | 414,29 | 9.84269 | |
| 9.99237 | 354,60 | 9.99601 | |
| 2.61730 | +59,69 | 2.54974 | |

| | | | |
|---|---|---|---|
| 54,5 | 5/unten | 60,5 | |
| 33 | | 43,5 | |
| 87,5 | 21,5 | 104 | 17 |
| 1.94201 | 1.33244 | 2.01703 | 1.2304 |
| 9.80466 | 9.19509 | 9.87967 | 9.0930 |
| 9.88662 | 391,07 | 9.81442 | |
| 9.99460 | 332,74 | 9.99664 | |
| 2.59226 | +58,33 | 2.52210 | |

| | | | |
|---|---|---|---|
| 53,5 | 6/unten | 60 | |
| 31 | | 42 | |
| 84,5 | 22,5 | 102 | 18 |
| 1.92686 | 1.35218 | 2.00860 | 1.25527 |
| 9.78951 | 9.21483 | 9.87124 | 9.11791 |
| 9.89642 | | 9.82531 | |
| 9.99408 | 399,52 | 9.99623 | |
| 2.60154 | 340,86 | 2.53258 | |
| | +58,66 | | |

| | | | |
|---|---|---|---|
| 53 | 7/unten | 60 | |
| 28,5 | | 43 | |
| 81,5 | 24,5 | 103 | 17 |
| 1.91116 | 1.38917 | 2.01284 | 1.23045 |
| 9.77381 | 9.25182 | 9.87548 | 9.09309 |
| 9.90549 | | 9.81995 | |
| 9.99296 | 406,90 | 9.99664 | |
| 2.60949 | 337,00 | 2.52763 | |
| | +69,90 | | |

| | | | |
|---|---|---|---|
| 58,5 | 8/oben | 49 | |
| 37,5 | | 25 | |
| 96 | 21 | 74 | 24 |
| 1.98227 | 1.32222 | 1.86923 | 1.380 |
| 9.84492 | 9.18487 | 9.73187 | 9.242 |
| 9.85396 | | 9.92535 | |
| 9.99485 | 362,95 | 9.99325 | |
| 2.55985 | 426,23 | 2.62964 | |
| | +63,28 | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 58 | 9)oben | 50 | | 59,5 | 10)oben | 50,5 | |
| 39 | | 26 | | 39,5 | | 26,5 | |
| 97 | 19 | 76 | 24 | 99 | 20 | 77 | 24 |
| 8677 | 1.27875 | 1.88081 | 1.38021 | 1.99564 | 1.30103 | 1.88649 | 1.38021 |
| 4942 | 9.14140 | 9.74345 | 9.24285 | 9.85829 | 9.16368 | 9.74913 | 9.24285 |
| 84955 | 360,07 | 9.92042 | | 9.84031 | 352,11 | 9.91786 | |
| 99580 | 421,42 | 9.99325 | | 9.99533 | 418,94 | 9.99325 | |
| 55639 | +61,34 | 2.62471 | | 2.54668 | +66,83 | 2.62215 | |

95 Juni 28

| | | | | |
|---|---|---|---|---|
| 880,0 | 17h 46m 44,57 | −2° 13′ 39,9 | Warschau I | Beob. 38 |
| | 44,22 | 40,1 | " | 40 |
| | 44,53 | 40,4 | | 115 |
| | 44,16 | 44,2 | | 115 |
| | 44,42 | 38,4 | | 115 |
| | 44,37 | 36,6 | | 188 |
| 0,0 | 17h 46m 44,378 | −2° 13′ 39,93 | Warschau I 6 Beob. | |
| | + 46,867 | − 16,88 | | |
| 5,0 | 17h 47m 31,245 | −2° 13′ 56,81 | Warschau I 6 Beob. | |
| | + 3,143 | − 8,12 | | |
| | 17h 47m 34,388 | −2° 14′ 4,93 | | |
| | + 1 27,402 | + 1 27,10 | | |
| Tyche | 17h 49m 1,790 | −2° 12′ 37,83 | | |
| Juni 28 | 11h 40m 18s m. Z. | | | |
| Corr. w. P. | + 0,020 | + 4,67 | | |
| chn. | 17h 49m 2,198 | −2° 12′ 35,08 | | |
| rr. d. Eph. | − 0,388 | + 1,92 | | |

1887.5

| | |
|---|---|
| α | 266 46,95 |
| δ | −2 13,81 |
| cos α | 8.74917 n |
| n | 1.30218 |
| sin α | 9.99932 n |
| tg δ | 8.59043 n |
| | 9.89193 |
| | +0.7797 |
| m | 46,0872 |
| Δα | 46,8669 |
| | |
| [illegible] | 0.05135 n |
| | − 1,12551 |

10 Vgl.

Gr. 10m,8 geschätzt.

| Juni 28 | | | Tyche | Δα | Δδ |
|---|---|---|---|---|---|
| g | 324 7 | 17h 33m 45,25 | 17 35 13,75 | +1 28,50 | |
| ε | 266 53 | 17 33 45,50 | 17 35 14,00 | +1 28,50 | |
| H | 173 38 | 17 39 22,50 | 17 40 52,00 | +1 29,50 | |
| g+α | 231° 0′ | 17 39 22,50 | 17 40 51,00 | +1 28,50 | |
| cos | 9.79891 n | 17 48 52,00 | 17 50 20,00 | +1 28,00 | |
| g | 1.1541 | 17 48 52,50 | 17 50 20,00 | +1 27,50 | |
| sin | 9.89055 n | 17 54 58,00 | 17 56 25,75 | +1 27,75 | |
| tgδ | 8.59060 n | 17 54 58,25 | 17 56 26,25 | +1 28,00 | |
| | 9.63556 | 17 5 10,50 | 18 6 38,00 | +1 27,50 | |
| | +0,43 | 17 5 10,50 | 18 6 37,75 | +1 27,25 | |
| f | + 26,57 | 18 13 39,50 | 18 15 6,50 | +1 27,00 | + 83,45 |
| | +20,15 | 18 13 39,50 | 18 15 6,50 | +1 27,00 | 79,17 |
| Δα | +47,15 | 18 18 37,50 | 18 20 4,25 | +1 26,75 | 80,91 |
| H+α | 80 31 | 18 18 37,50 | 18 20 3,75 | +1 26,25 | 87,08 |
| sin δ | 8.59060 n | 18 24 22,25 | 18 25 48,50 | +1 26,25 | 81,88 |
| cos | 9.2169 | 18 24 21,75 | 18 25 49,00 | +1 27,25 | 87,85 |
| h | 1.3101 | 18 29 56,75 | 18 31 23,00 | +1 26,25 | 85,38 |
| sin | 9.9940 | 18 29 56,75 | 18 31 23,75 | +1 27,00 | 93,06 |
| secδ | 0.0003 | 18 34 45,00 | 18 36 11,50 | +1 26,50 | 94,89 |
| | 1.3044 | 18 34 45,00 | 18 36 11,75 | +1 26,75 | 97,29 |
| fi | 9.9921 | | | | |
| cos | 9.9997 | | 18h 7m 48,35 | +1m 27,400 | + 87,10 |
| fi cos | 9.9918 | | − 0 19,86 | + 0.002 | |
| fgeo | 0.9530 n | − 8,97 | 18h 7m 28,49 | = fi | |
| fhor | 9.1176 n | − 0,13 | 6 25 15,02 | | |
| | | − 9,10 | 11 42 13,47 | | |
| | | + 0,98 | − 1 55,04 | | |
| | Δδ = | − 8,12 | 11h 40m 18,43 | m. Z. | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 53,5 | 1)oben | 64,5 | | 54 | 2)oben | 64 | |
| 33 | | 44,0 | | 33 | | 44 | |
| 86,5 | 20,5 | 108,5 | 20,5 | 87 | 21 | 108 | 20 |
| 1.93702 | 1.31175 | 2.03543 | 1.31175 | 3952 | 1.32222 | 2.03342 | 1.30103 |
| 9.79968 | 9.17441 | 9.89809 | 9.17441 | 30218 | 9.18488 | 9.89608 | 9.16369 |
| 9.88997 | 394,55 | 9.78676 | | 88831 | 392,83 | 9.79009 | |
| 9.99510 | 311,10 | 9.99510 | | 99485 | 313,66 | 9.99533 | |
| 2.59611 | +83,45 | 2.49290 | | 59420 | +79,17 | 2.49646 | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 62 | 3)unten | 54 | | 62 | 4)unten | 52,5 | |
| 45 | | 30 | | 44,5 | | 28,5 | |
| 107 | 17 | 84 | 24 | 106,5 | 17,5 | 81 | 24 |
| 2.02938 | 1.23045 | 1.92428 | 1.38021 | 2.02735 | 1.24304 | 1.90849 | 1.38021 |
| 9.89204 | 9.09311 | 9.78694 | 9.24287 | 9.89081 | 9.10570 | 9.77115 | 9.24287 |
| 9.79650 | 319.29 | 9.89799 | | 9.79962 | 321,44 | 9.90692 | |
| 9.99664 | 400,20 | 9.99325 | | 9.99644 | 408,52 | 9.99325 | |
| 2.50418 | +80,91 | 2.60228 | | 2.50710 | +87,08 | 2.61121 | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 61 | 5)unten | 52 | | 61 | 6)unten | 51 | |
| 43 | | 26,5 | | 43 | | 25 | |
| 104 | 18 | 78,5 | 25,5 | 104 | 18 | 76 | 26 |
| 01703 | 1.25527 | 1.89487 | 1.40654 | | | 1.88081 | 1.41497 |
| 37969 | 9.11793 | 9.75753 | 9.26920 | wie 5) | | 9.74347 | 9.27763 |
| 81439 | 332,40 | 9.91388 | | | 332,40 | 9.92041 | |
| 99623 | 414,28 | 9.99237 | | | 420,25 | 9.99206 | |
| 52166 | +81,88 | 2.61729 | | | +87,85 | 2.62351 | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 61 | 7)unten | 51,5 | | | | | |
| 43 | | 25,5 | | | | | |
| 104 | 18 | 77 | 26 | | | | |
| | | 1.88649 | 1.41497 | | | | |
| wie 5) | | 9.74915 | 9.27763 | | | | |
| | 332,40 | 9.91785 | | | | | |
| | 417,78 | 9.99206 | | | | | |
| | +85,38 | 2.62095 | | | | | |

(38) Tyche

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 51,5 | 8/ oben | 63 | | 52,5 | 9/ oben | 64 | | 53 | 10/ oben | 65 | | | | | |
| 28,5 | | 44 | | 29,5 | | 44,5 | | 30 | | 44,5 | | | | | |
| 80 | 23 | 107 | 19 | 82 | 23 | 108,5 | 19,5 | 83 | 23 | 120,5 | 20,5 | | | | |
| 1.90309 | 1.36173 | 2.02938 | 1.27875 | 1.91381 | 1.36173 | 2.03543 | 1.29003 | 1.91908 | 1.36173 | 2.03941 | 1.31175 | | | | |
| 9.76575 | 9.22439 | 9.89204 | 9.14141 | 9.77647 | 9.22439 | 9.89809 | 9.15269 | 9.78174 | 9.22439 | 9.90207 | 9.17445 | | | | |
| 9.90976o | 411,73 | 9.79650 | | 9.90403 | 406,33 | 9.78676 | | 9.90105 | 403,55 | 9.77995 | | | | | |
| 9.99381 | 318,67 | 9.99580 | | 9.99381 | 311,44 | 9.99557 | | 9.99381 | 306,26 | 9.99510 | | | | | |
| 2.61461o | +93,06 | 2.50334 | | 2.60888 | +94,89 | 2.49337 | | 2.60590 | +97,29 | 2.48609 | | | | | |

# Parallaxencorrectionen für Eukrate (247)

Fortsetzung

$\pi = 8''{,}80$ entsprechend den Beschlüssen der Conferenz von 1896

| | 1894 März 4 | 1894 März 27 | 1894 März 28 | 1894 März 31 | 1894 Apr. 2 | 1894 Apr. 5 | 1897 Dec 27 | 1898 Jan 17 | 1898 Jan 18 | 1901 Sep 16 | 1901 Sep 18 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $\vartheta$ | $7^h\,27^m\,20^s{,}8$ | $9^h\,55^m\,11^s{,}6$ | $9^h\,53^m\,0^s{,}6$ | $11^h\,50^m\,12^s{,}4$ | $10^h\,18^m\,14^s{,}0$ | $10^h\,9\,7.0$ | 3 54 9.7 | $2^h\,48\,42^s{,}4$ | 3 12 32,7 | $21^h\,19^m\,16^s{,}9$ | $22^h\,25^m\,5^s{,}8$ |
| $\alpha$ | 11 42 8,4 | 11 16 13,1 | 11 15 13,6 | 11 12 16,5 | 11 10 31.5 | 11 7 58.1 | 8 14 21.7 | 7 34 34,1 | 7 32 42,4 | 0 9 17.7 | 0 6 33,4 |
| $t$ | $-4\,14\,47{,}6$ | $-1^h\,21^m\,1^s{,}5$ | $-1^h\,22\,13{,}0$ | $+0^h\,37^m\,55.9$ | $-0^h\,52^m\,17{,}5$ | $-0^h\,58^m\,51^s{,}1$ | $-4^h\,20^m\,12.0$ | $-4\,45\,51{,}7$ | $-4^h\,20^m\,9^s{,}7$ | $-2\,50\,0{,}8$ | $-1^h\,41^m\,27^s{,}6$ |
| $\sin t$ | 9.9525 n | 9.5393 vn | 9.5454 n | 9.2169 | 9.3545 n | 9.4048 n | 9.9575 n | 9.9769 n | 9.9574 n | 9.8297 n | 9.6319 n |
| const | 9.5701 | 9.5701 | 9.5701 | 9.5701 | 9.5701 | 9.5701 | 9.5701 | 9.5662 | 9.5662 | 9.5662 | 9.5662 |
| $\Sigma$ | 9.5226 n | 9.1094 vn | 9.1155 n | 8.7870 | 8.9246 n | 8.9749 n | 9.5276 n | 9.5431 n | 9.5236 vn | 9.3959 n | 9.1981 n |
| $\lg\Delta$ | 0.2764 | 0.2950 | 0.2966 | 0.3018 | 0.3053 | 0.3110 | 0.1488 | 0.1585 | 0.1597 | 0.1071 | 0.1047 |
| $\cos\delta$ | 9.9925 | 9.9930 | 9.9931 | 9.9933 | 9.9934 | 9.9936 | 9.6671 | 9.6744 | 9.6761 | 9.9999 | 0.0000 |
| $\Delta\cos\delta$ | 0.2689 | 0.2880 | 0.2897 | 0.2951 | 0.2987 | 0.3046 | 9.8159 | 9.8329 | 9.8358 | 0.1070 | 0.1047 |
| | 9.2537 n | 8.8214 vn | 8.8258 n | 8.4919 | 8.6259 n | 8.6703 n | 9.7117 n | 9.7102 n | 9.6878 vn | 9.2889 n | 9.0934 n |
| | | | | | | | | $-0^s{,}513$ | $-0^s{,}487$ | $-0^s{,}194$ | $-0^s{,}124$ |
| $\Delta$ in $d$ in Zeit | $-0^s{,}179$ | $-0^s{,}066$ | $-0^s{,}067$ | $+0^s{,}031$ | $-0^s{,}042$ | $-0^s{,}047$ | $-0^s{,}515$ | | | | |
| | | | | | | | $-0^s{,}510$ mit $\pi = 8''{,}80$ | | | | |
| $\lg\varphi_1$ | 0.0919 | 0.0919 | 0.0919 | 0.0919 | 0.0919 | 0.0919 | 0.0919 | 0.0919 | 0.0919 | 0.0919 | 0.0919 |
| $\cos t$ | 9.6465 | 9.9723 | 9.9714 | 9.9946 | 9.9886 | 9.9855 | 9.6251 | 9.5022 | 9.6252 v | 9.8676 | 9.9560 |
| $\lg\gamma$ | 0.4454 | 0.1196 | 0.1205 | 0.0979 | 0.1033 | 0.1064 | 0.4668 | 0.5897 | 0.4666 v | 0.2243 | 0.1359 |
| $\gamma$ | 70 16 | 52 47 | 52 51,1 | 51 24' | 51 45, | 51 57 | 71 9 | 75 34 v | 71 9 | 59 11 | 53 49 |
| $-\delta$ | $-10°\,38'$ | $-10°\,14'$ | $-10°\,12'$ | $-10°\,4'$ | $-9°\,59'$ | $-9\,50$ | $-62\,19$ | $-61°\,48$ | $-61°\,41$ | $+1°\,2'$ | $+0°\,50$ |
| $\gamma-\delta$ | 59 38 | 42 33 | 42 39 | 41 20 | 41 46 | 42 7 | 8 50 | 13 46 v | 9 28 | 60 13 | 54 39 |
| $\sin(\gamma-\delta)$ | 9.9359 | 9.8301 | 9.8309 | 9.8198 | 9.8235 | 9.8265 | 9.1863 | 9.3767 v | 9.2161 | 9.9385 | 9.9115 |
| const | 0.8381 | 0.8381 | 0.8381 | 0.8381 | 0.8381 | 0.8381 | 0.8381 | 0.8342 | 0.8342 | 0.8342 | 0.8342 |
| $\Sigma$ | 0.7740 | 0.6682 | 0.6690 | 0.6579 | 0.6616 | 0.6646 | 0.0244 | 0.2109 v | 0.0503 | 0.7727 | 0.7457 |
| $\lg\Delta$ | 0.2764 | 0.2950 | 0.2966 | 0.3018 | 0.3053 | 0.3110 | 0.1488 | 0.1585 | 0.1597 | 0.1071 | 0.1047 |
| $\sin\gamma$ | 9.9737 | 9.9011 | 9.9015 | 9.8929 | 9.8950 | 9.8962 | 9.9761 | 9.9861 | 9.9761 | 9.9339 | 9.9069 |
| $\Delta\sin\gamma$ | 0.2501 | 0.1961 | 0.1981 | 0.1947 | 0.2003 | 0.2072 | 0.1249 | 0.1446 | 0.1358 | 0.0410 | 0.0116 |
| | 0.5239 | 0.4721 | 0.4709 | 0.4632 | 0.4613 | 0.4574 | 9.8995 | 0.0663 v | 9.9145 | 0.7317 | 0.7341 |
| Korr. in $\delta$ | $+3''{,}34$ | $+2''{,}96$ | $+2''{,}96$ | $+2''{,}91$ | $+2''{,}89$ | $+2''{,}87$ | $+0''{,}79$ | $+1''{,}16$ | $+0''{,}82$ | $+5''{,}39$ | $+5''{,}42$ |
| | | | | | | | $+0''{,}79$ mit $\pi = 8''{,}80$ | | | | |

## (258) Tyche Fortsetzung

| | 1895 Juni 12 | Juni 15 | Juni 20 | Juni 21 | Juni 26 | 1895 Juni 28 |
|---|---|---|---|---|---|---|
| $\vartheta$ | $17^h\,12^m\,12^s{,}2$ | 16 54 2,7 | $17^h\,42^m\,37^s{,}7$ | 17 42 33,0 | $17^h\,35\,12{,}6$ | $18^h\,7^m\,28^s{,}5$ |
| $\alpha$ | 18 3 33,3 | 18 0 55,7 | 17 56 21,7 | 17 55 26,2 | 17 50 52,0 | 17 49 1,8 |
| $t$ | $-0^h\,51^m\,21^s{,}1$ | $-1^h\,6^m\,23{,}0$ | $-0^h\,13^m\,44{,}0$ | $-0^h\,12^m\,53^s{,}2$ | $-0^h\,15\,39{,}4$ | $+0^h\,18^m\,26{,}7$ |
| $\sin t$ | 9.3467 n | 9.4589 n | 8.7773 n | 8.7497 n | 8.8343 n | 8.9050 |
| const | 9.5701 | 9.5701 | 9.5701 | 9.5701 | 9.5701 | 9.5701 |
| $\Sigma$ | 8.9168 n | 9.0290 n | 8.3474 n | 8.3198 n | 8.4044 n | 8.4751 |
| $\lg\Delta$ | 0.1906 | 0.1876 | 0.1838 | 0.1832 | 0.1816 | 0.1814 |
| $\cos\delta$ | 9.9993 | 9.9994 | 9.9996 | 9.9996 | 9.9997 | 9.9997 |
| $\Delta\cos\delta$ | 0.1899 | 0.1870 | 0.1834 | 0.1828 | 0.1813 | 0.1811 |
| | 8.7269 n | 8.8420 n | 8.1640 n | 8.1370 n | 8.2231 n | 8.2940 |
| Korr. in $d$ in Zt. | $-0^s{,}053$ | $-0^s{,}069$ | $-0{,}015$ | $-0^s{,}014$ | $-0{,}017$ | $+0{,}020$ |
| $\lg\lg\varphi'$ | 0.0919 | 0.0919 | 0.0919 | 0.0919 | 0.0919 | 0.0919 |
| $\cos t$ | 9.9890 | 9.9812 | 9.9992 | 9.9993 | 9.9990 | 9.9986 |
| $\lg\gamma$ | 0.1029 | 0.1107 | 0.0927 | 0.0926 | 0.0929 | 0.0933 |
| $\gamma$ | 51 43 v | 52 13 | 51 4 | 51 4 | 51 5 | 51 6 |
| $-\delta$ | $+3°\,11'$ | $+2°\,56$ | $+2°\,35'$ | $+2°\,32'$ | $+2°\,17'$ | $+2°\,13'$ |
| $\gamma-\delta$ | 54 54 v | 55 9 | 53 39 | 53 36 | 53 22 | 53 19 |
| $\sin(\gamma-\delta)$ | 9.9128 v | 9.9142 | 9.9060 | 9.9057 | 9.9044 | 9.9041 |
| const | 0.8381 | 0.8381 | 0.8381 | 0.8381 | 0.8381 | 0.8381 |
| $\Sigma$ | 0.7509 v | 0.7523 | 0.7441 | 0.7438 | 0.7425 | 0.7422 |
| $\lg\Delta$ | 0.1906 | 0.1876 | 0.1838 | 0.1832 | 0.1816 | 0.1814 |
| $\sin\gamma$ | 9.8948 v | 9.8978 | 9.8909 | 9.8909 | 9.8910 | 9.8911 |
| $\Delta\sin\gamma$ | 0.0854 v | 0.0854 | 0.0747 | 0.0741 | 0.0726 | 0.0725 |
| | 0.6655 | 0.6669 | 0.6694 | 0.6697 | 0.6699 | 0.6697 |
| Korr. in $\delta$ | $+4''{,}63$ | $+4''{,}64$ | $+4''{,}67$ | $+4''{,}67$ | $+4{,}68$ | $+4{,}67$ |

9.5662

Von 1892 an
π = 8,88

Parallaxen-Correctionen für (247) Eugenia.

| | 1889 Jan 1 | Jan 5 | Jan 6 | 1892 Sep 15 | Sep 17 | Sep 19 | Oct 12 | Oct 15 | Oct 17 | Oct 24 | 1894 März 2 | 1894 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Diff. * Zeit | 4h 6m 31,5s | 4h 31 6,6 | 4h 26 51,9 | θ 21h 26 28,8 | 22 33 17,4 | 23h 2m 49,5s | 23h 52m 33,5s | 23h 42m 36,2 | 21h 44m 31,1 | 23h 43m 41,3 | 9h 32s 38,3 | 7h 40m |
| δ = Bogen | 61° 38' | 67° 47 | 66° 43' | δ 0 55 24,2 | −0 53 0,6 | 0 50 31,7 | 0 18 9,9 | 0 14 2,1 | 0 11 28,5 | 0 2 48,5 | 11 44 19,7 | 11 43 |
| α = Bogen | 141 30 | 140 10 | 139 49 | λ −3 18 55,4 | −2h 19m 43,2 | −1h 47m 42,2 | −0h 25m 36,4 | −0h 31m 25,9 | −2h 26m 57,4 | −0 19 7,2 | | |
| St. Winkel θ−α | −79° 52' | −72° 23 | −73° 6' | λ −49° 44' | −34° 56' | −26° 55,5 | −6° 24,1 | −7° 51,5 | −36° 44' | −4° 47' | −2° 11 41,4 | −4 2 |
| f.(θ−α) | 9.9932 n | 9.9791 n | 9.9808 n | 9.8826 n | 9.7579 n | 9.6559 n | 9.0473 n | 9.1358 n | 9.7768 n | 8.9211 n | 9.7352 n | 9.940 |
| Const | 0.7447 | 0.7447 | 0.7447 | a zu 9.5701 | 9.5701 | 9.5701 | 9.5701 | 9.5701 | 9.5701 | 9.5701 | 9.5701 | 9.570 |
| | 0.7379 n | 0.7238 n | 0.7255 n | 9.4527 n | 9.3280 n | 9.2260 n | 8.6174 n | 8.7059 n | 9.3469 n | 8.4912 n | 9.3053 n | 9.510 |
| ½Δ | 0.1684 | 0.1665 | 0.1661 | 0.0988 | 0.0946 | 0.0908 | 0.0744 | 0.0761 | 0.0776 | 0.0862 | 0.2765 | 0.276 |
| ½ cos δ | 9.7546 | 9.7513 | 9.7505 | 9.9911 | 9.9906 | 9.9901 | 9.9843 | 9.9836 | 9.9832 | 9.9818 | 9.9925 | 9.992 |
| ½Δ cos δ | 9.9230 | 9.9178 | 9.9166 | 0.0899 | 0.0852 | 0.0809 | 0.0587 | 0.0597 | 0.0608 | 0.0680 | 0.2690 | 0.268 |
| | 0.8149 n | 0.8060 n | 0.8089 n | 9.3628 n | 9.2428 n | 9.1451 n | 8.5587 n | 8.6462 n | 9.2861 n | 8.4232 n | 9.0363 n | 9.241 |
| par. Corr. Acc. Bogen | −6,53 | −6,40 | −6,44 | | | | | | | | | |
| " Zeit | −0,44 | −0,43 | −0,43 | −0,231 | −0,175 | −0,140 | −0,036 | −0,044 | −0,193 | −0,026 | −0,109 | −0,17 |
| ½ φ | 0.0919 | 0.0919 | 0.0919 | 0.0919 | 0.0919 | 0.0919 | 0.0919 | 0.0919 | 0.0919 | 0.0919 | 0.0919 | 0.091 |
| cos (θ−α) | 9.2454 | 9.4809 | 9.4634 | 9.8105 | 9.9137 | 9.9502 | 9.9973 | 9.9959 | 9.9039 | 9.9985 | 9.9240 | 9.690 |
| ½ γ | 0.8465 | 0.6110 | 0.6285 | 0.2814 | 0.1782 | 0.1417 | 0.0946 | 0.0960 | 0.1880 | 0.0934 | 0.1679 | 0.401 |
| γ | 81 54 | 76 14 | 76 46 | 62 23 | 56 26 | 54 11 | 51 11 | 51 17 | 57 2 | 50 6 | 55 49 | 68 |
| −δ | −55 22 | −55 40 | −55 44 | −11° 33' | −11° 53' | −12 13 | −15° 19' | −15° 38' | −15° 49' | −16° 27' | −10° 39' | −10° 3 |
| φ−δ | 26 32 | 20 34 | 21 2 | 50 50 | 44 33 | 41 58 | 35 52 | 35 39 | 41 13 | 34 38 | 45 10 | 57 4 |
| f.(φ−δ) | 9.6500 | 9.5457 | 9.5550 | 9.8895 | 9.8460 | 9.8252 | 9.7678 | 9.7655 | 9.8188 | 9.7547 | 9.8507 | 9.927 |
| Const | 0.8367 | 0.8367 | 0.8367 | 0.8381 | 0.8381 | 0.8381 | 0.8381 | 0.8381 | 0.8381 | 0.8381 | 0.8381 | 0.838 |
| | 0.4867 | 0.3824 | 0.3917 | 0.7276 | 0.6841 | 0.6633 | 0.6059 | 0.6036 | 0.6569 | 0.5928 | 0.6888 | 0.765 |
| ½Δ | 0.1684 | 0.1665 | 0.1661 | 0.0988 | 0.0946 | 0.0908 | 0.0744 | 0.0761 | 0.0776 | 0.0862 | 0.2765 | 0.2764 |
| ½ f γ | 9.9956 | 9.9873 | 9.9883 | 9.9475 | 9.9208 | 9.9090 | 9.8916 | 9.8922 | 9.9238 | 9.8911 | 9.9176 | 9.9682 |
| ½Δ f γ | 0.1640 | 0.1538 | 0.1544 | 0.0463 | 0.0154 | 9.9998 | 9.9660 | 9.9683 | 0.0014 | 9.9773 | 0.1941 | 0.2446 |
| | 0.3227 | 0.2286 | 0.2373 | 0.6813 | 0.6687 | 0.6635 | 0.6399 | 0.6353 | 0.6555 | 0.6155 | 0.4947 | 0.5200 |
| par Corr Δδ | +2,10 | +1,69 | +1,73 | +4,80 | +4,66 | +4,61 | +4,36 | +4,32 | +4,52 | +4,13 | +3,12 | +3,32 |

(258) Tycho, Fortsetzung

Von 1892 an π = 8,88

| | 1887 Sept 16 | Sept 20 | Sept 21 | Nov 17 | 1890 April 13 | April 15 | 1891 Juli 26 | Aug 9 | 1892 Dec 23 | Dec 24 | 1893 Jan 10 | Jan 1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Diff. * Zeit | 20h 50m 52,4s | 21h 4 46,9 | 20h 41 24,1 | 22h 35 19,1 | 12h 49 40,1 | 12h 32 26,8 | 19h 45 38,6 | 20h 13 24,2 | θ 5h 41m 56,1s | 4h 57m 6,5s | 4h 29m 46,3s | 5h 36m |
| δ = Bogen | 312° 43' | 316° 12' | 310° 21' | 338 50 | 192° 25 | 188° 7' | 296° 25 | 303° 24' | δ 7 21 16,8 | 7 20 24,0 | 7 4 16,7 | 7 2 |
| α = Bogen | 339° 50' | 339 19 | 339 12 | 343 44 | 198 11 | 197 47 | 299 11 | 296 26 | λ −1 39 20,7 | −2h 23m 17,5s | −2 34 30,4 | −1 25 |
| St. W. θ−α | −27° 7' | −23° 7 | −28° 51' | −4 54 | −5 46 | −9 40 | −2 46 | +6 58 | λ −24° 50 | −35° 45' | −38 38 | −21 2 |
| f.(θ−α) | 9.6588 n | 9.5940 n | 9.6835 n | 8.9315 n | 9.0021 n | 9.2251 n | 8.6837 n | 9.0838 | 9.6232 n | 9.7673 n | 9.7954 n | 9.562 |
| Diff. Const. für 1 Sec | 9.5686 | 9.5686 | 9.5686 | 9.5686 | 9.5686 | 9.5686 | 9.5686 | 9.5686 | 9.5701 | 9.5701 | 9.5701 | 9.570 |
| f(θ−α). Const | 9.2274 n | 9.1626 n | 9.2521 n | 8.5001 n | 8.3707 n | 8.7937 n | 8.2523 n | 8.6524 n | 9.1933 n | 9.3374 n | 9.3655 n | 9.132 |
| cos δ | 9.9935 | 9.9947 | 9.9950 | 9.9999 | 9.9932 | 9.9936 | 9.9983 | 9.9990 | 0.0000 | 0.0000 | 0.0000 | 0.000 |
| ½ f. p. in Zeit Sec | 9.2339 n | 9.1679 n | 9.2571 n | 8.5002 n | 8.3775 n | 8.8000 n | 8.2540 n | 8.6534 n | 9.1933 n | 9.3374 n | 9.3655 n | 9.132 |
| −½Δ | 0.0457 | 0.0479 | 0.0488 | 0.1854 | 0.3214 | 0.3214 | 0.1101 | 0.1097 | 0.2407 | 0.2404 | 0.2443 | 0.245 |
| ½ Corr Acc in Zeit Sec | 9.1882 n | 9.1200 n | 9.2083 n | 8.3148 n | 8.2561 n | 8.4786 n | 8.1439 n | 8.5437 n | 8.9526 n | 9.0970 n | 9.1212 n | 8.886 |
| Corr Acc in Zeit Sec | −0,15 | −0,13 | −0,16 | −0,02 | −0,02 | −0,03 | −0,01 | +0,03 | −0,090 | −0,125 | −0,132 | −0,07 |
| Diff. ½ φ | 0.0919 | 0.0919 | 0.0919 | 0.0919 | 0.0919 | 0.0919 | 0.0919 | 0.0919 | 0.0919 | 0.0919 | 0.0919 | 0.091 |
| cos (θ−α) | 9.9494 | 9.9637 | 9.9424 | 9.9984 | 9.9978 | 9.9938 | 9.9995 | 9.9968 | 9.9579 | 9.9090 | 9.8927 | 9.968 |
| ½ γ | 0.1425 | 0.1282 | 0.1495 | 0.0935 | 0.0941 | 0.0981 | 0.0924 | 0.0951 | 0.1340 | 0.1829 | 0.1992 | 0.123 |
| γ | 54 14 | 53 20 | 54 40 | 51 7 | 51 9 | 51 25 | 51 3 | 51 13 | 53 42 | 56 43 | 57 42 | 53 |
| −δ | −9 57 | −8 57 | −8 43 | +0 55 | +10 8 | +9 51 | −5 4 | −3 56 | −0 32 | −0 30 | −0 35 | −0 4 |
| φ−δ | 44 22 | 44 23 | 45 57 | 52 2 | 61° 17' | 61° 16' | 45 59 | 47 17 | 53 10 | 56 13 | 57 7 | 52 2 |
| f.(φ−δ) | 9.8446 | 9.8448 | 9.8566 | 9.8967 | 9.9430 | 9.9429 | 9.8568 | 9.8661 | 9.9033 | 9.9197 | 9.9242 | 9.898 |
| Diff. Decl. Const | 0.8367 | 0.8367 | 0.8367 | 0.8367 | 0.8367 | 0.8367 | 0.8367 | 0.8367 | 0.8381 | 0.8381 | 0.8381 | 0.838 |
| f.(φ−δ) Const | 0.6813 | 0.6815 | 0.6933 | 0.7334 | 0.7797 | 0.7796 | 0.6935 | 0.7028 | 0.7414 | 0.7578 | 0.7623 | 0.736 |
| f γ | 9.9092 | 9.9042 | 9.9116 | 9.8912 | 9.8914 | 9.8930 | 9.8908 | 9.8918 | 9.9063 | 9.9222 | 9.9270 | 9.902 |
| ½ f. p. in Decl | 0.7721 | 0.7773 | 0.7817 | 0.8422 | 0.8883 | 0.8866 | 0.8027 | 0.8110 | 0.8351 | 0.8356 | 0.8353 | 0.834 |
| −½Δ | 0.0457 | 0.0479 | 0.0488 | 0.1854 | 0.3214 | 0.3214 | 0.1101 | 0.1097 | 0.2407 | 0.2404 | 0.2443 | 0.245 |
| ½Δδ | 0.7264 | 0.7294 | 0.7329 | 0.6668 | 0.5669 | 0.5652 | 0.6926 | 0.7013 | 0.5944 | 0.5952 | 0.5910 | 0.588 |
| par Corr Δδ | +5,33 | +5,36 | +5,41 | +4,64 | +3,69 | +3,67 | +4,93 | +5,03 | +3,93 | +3,94 | +3,90 | +3,8 |

Parallaxen-Factoren

## (247) Eunrate.

| | 1885 Mai 14 | 17 | 19 | 22 | 23 | April 15 | 17 | 18 |
|---|---|---|---|---|---|---|---|---|
| Ber. ☆ Zeit | 10h 48 39,2 | 9h 37 40,3 | 9h 0 38,1 | 10h 13 25,1 | 10h 26 6,0 | 11h 27m 26,0 | 12h 18 32 | 11h 44 33,6 |
| ☉ = Bogen | 162° 10′ | 144° 25 | 135° 10′ | 153 21 | 156 31 | 171° 52′ | 184° 38 | 176° 8 |
| ☆ = Bogen | 177 12 | 176 22 | 175 48 | 174 58 | 174 41 | 169 28 | 169 9 | 168 59 |
| ☆ − ☉ | −15° 2 | −31° 57 | −40 38 | −21 37 | −18 10 | +2° 24 | +15 29 | +7 9 |
| log (β−α) | 9.4139 n | 9.7236 n | 9.8137 n | 9.5663 n | 9.4939 n | 8.6220 | 9.4264 | 9.0951 |
| log für Zeit | 9.5686v | 9.5686v | 9.5686v | 9.5686v | 9.5686v | 9.5686v | 9.5686v | 9.5686v |
| log (β−α) Corr. | 8.9825v n | 9.2922v n | 9.3823v n | 9.1349v n | 9.0625v n | 8.1906v | 8.9950v | 8.6637v |
| log cos ☆ | 9.9982 | 9.9982 | 9.9982 | 9.9982 | 9.9982 | 9.9986 | 9.9987 | 9.9987 |
| log Zeit Sec | 8.9843v n | 9.2940v n | 9.3841v n | 9.1367v n | 9.0643v n | 8.1920v | 8.9962 | 8.6650v |
| log ΔA | 0.2966 | 0.2979 | 0.2928 | 0.2952 | 0.2962 | 0.3086 | 0.3429 | 0.3450 |
| Corr Δα Zeit Sec | 9.6877v n | 9.9961v n | 9.0913v n | 8.8415v n | 8.7681v n | 7.8534v | 8.6534v | 8.3200 |
| Corr Δα Zeit | − 0,05 | − 0,10 | − 0,12 | − 0,07 | − 0,06 | + 0,007 | + 0,045 | + 0,021 |
| log ½ ΔA | 0.0919 | 0.0919 | 0.0919 | 0.0919 | 0.0919 | 0.0919 | 0.0919 | 0.0919 |
| log cos (β−α) | 9.9849 | 9.9287 | 9.8802 | 9.9683 | 9.9778 | 9.9996 | 9.9839 | 9.9966 |
| log y | 0.1070 | 0.1632 | 0.2117 | 0.1236 | 0.1141 | 0.0923 | 0.1080 | 0.0953 |
| y | 51 59 | 55 31 | 58 27 | 53 3 | 52 26 | 51 3 | 52 3 | 51 14 |
| −δ | −5 13 | −5 12 | −5 11 | −5 9 | −5 9 | −4 33 | −4 28 | −4 25 |
| y−δ | 46 46 | 50 19 | 53 16 | 47 54 | 47 17 | 46 30 | 47 35 | 46 49 |
| log (y−δ) | 9.8625 | 9.8863 | 9.9039 | 9.8704 | 9.8661 | 9.8606 | 9.8682 | 9.8628 |
| Decl Corr. | 0.8367 | 0.8367 | 0.8367 | 0.8367 | 0.8367 | 0.8367 | 0.8367 | 0.8367 |
| log (y−δ) Corr | 0.6992 | 0.7230 | 0.7406 | 0.7071 | 0.7028 | 0.6973 | 0.7049 | 0.6995 |
| log ½ y | 9.8964 | 9.9161 | 9.9305 | 9.9026 | 9.8991 | 9.8908 | 9.8968 | 9.8919 |
| log p. = Decl | 0.8028 | 0.8069 | 0.8101 | 0.8045 | 0.8037 | 0.8065 | 0.8081 | 0.8076 |
| −½ ΔA | 0.2906 | 0.2920 | 0.2928 | 0.2952 | 0.2962 | 0.3086 | 0.3429 | 0.3450 |
| log Δδ | 0.5122 | 0.5149 | 0.5173 | 0.5093 | 0.5075 | 0.4679 | 0.4652 | 0.4626 |
| Corr Δδ | + 3″25 | + 3,27 | + 3,29 | + 3,23 | + 3,22 | + 2,94 | + 2,92 | + 2,90 |

| | 1888 Nov 5 | Nov 7 | Nov 30 | Dec 3 | Dec 4 |
|---|---|---|---|---|---|
| Ber. ☆ Zeit | 1h 54m 31,5 | 1h 30m 11,2 | 2h 48m 46,2 | 2h 49m 6,6 | 3h 22 3 |
| ☉ = Bogen | 28° 38′ | 22 33 | 42 12 | 42° 17 | 50° 39 |
| ☆ = Bogen | 136 45 | 137 31 | 143 49 | 144 13 | 144 1 |
| ☆ − ☉ | −108° 7′ | −114° 58′ | −101 37 | −101 56 | −93° 42 |
| log (β−α) | 9.9779 n | 9.9574 n | 9.9910 n | 9.9905 n | 9.9991 |
| log für Zeit | 9.5686v | 9.5686v | 9.5686v | 9.5686v | 9.5686v |
| log (β−α) Corr. | 9.5465v n | 9.5260v n | 9.5596v n | 9.5591v n | 9.5677 |
| log cos ☆ | 9.8165 | 9.8152 | 9.7938 | 9.7903 | 9.7896 |
| log Zeit Sec | 9.7300 n | 9.7108v n | 9.7658v n | 9.7688v n | 9.7787 |
| log ΔA | 0.2549 | 0.2511 | 0.2089 | 0.2038 | 0.2022 |
| Corr Δα Zeit Sec | 9.4751 n | 9.4597 n | 9.5569 n | 9.5650v n | 9.5765 |
| Corr Δα Zeit | − 0,30 | − 0,29 | − 0,36 | − 0,37 | − 0,38 |
| log ½ ΔA | 0.0919 | 0.0919 | 0.0919 | 0.0919 | 0.0919 |
| log cos (β−α) | 9.4927 n | 9.6254 n | 9.3040 n | 9.3155 n | 8.8057 |
| log y | 0.5992 n | 0.4665 n | 0.7879 n | 0.7764 n | 0.2867 |
| y | 104 7v | 108 51v | 99 15v | 99 30 | 92 5 |
| −δ | − 49 3 | − 49 12 | − 51 32 | − 51 54 | −52 2 |
| y−δ | 55 4v | 59 39v | 47 43v | 47 36 | 40 5 |
| log (y−δ) | 9.9137 | 9.9360v | 9.8691v | 9.8683 | 9.8164 |
| Decl Corr. | 0.8367 | 0.8367 | 0.8367 | 0.8367 | 0.8367 |
| log (y−δ) Corr | 0.7504 | 0.7727v | 0.7058v | 0.7056 | 0.6531 |
| log ½ y | 9.9867 | 9.9760v | 9.9943 | 9.9940 | 9.9994 |
| log p. = Decl | 0.7637 | 0.7967 | 0.7115v | 0.7110 | 0.6537 |
| −½ ΔA | 0.2549 | 0.2511 | 0.2089 | 0.2038 | 0.2022 |
| log Δδ | 0.5088 | 0.5456 | 0.5026v | 0.5072 | 0.4515 |
| Corr Δδ | + 3″23 | + 3″51 | + 3,18 | + 3,21 | + 2,86 |

## (258) Tyche

| | 1886 Mai 6 I | Mai 6 II | Mai 9 | Mai 21 | Mai 22 | Mai 30 | Mai 31 |
|---|---|---|---|---|---|---|---|
| Ber. ☆ Zeit | 14h 10 37,5 | 15h 33 29,5 | 14h 47 4,2 | 14h 41 5,7 | 15h 5 28,4 | 15h 44 29,2 | 16 3 45,9 |
| ☉ = Bogen | 212 39 | 233 22 | 221 46 | 220° 16′ | 226 22 | 236° 7 | 240° 56 |
| ☆ = Bogen | 214 36 | 214 35 | 214 0 | 211 52 | 211 42 | 210 37 | 210 31 |
| M. β−α | −1 57 | +18 47 | +7° 46′ | +0 24′ | +14 40 | +25 30 | +30 25 |
| log (β−α) | 8.5318 n | 9.5078 | 9.1308 | 9.1646 | 9.4035 | 9.6340 | 9.7044 |
| Corr. für Zeit Sec | 9.5686v | 9.5686v | 9.5686v | 9.5686v | 9.5686v | 9.5686v | 9.5686v |
| log (β−α) Corr. | 8.1004v n | 9.0764 | 8.6994 | 8.7332 | 8.9721v | 9.2026 | 9.2730 |
| log cos ☆ | 9.9943 | 9.9943 | 9.9948 | 9.9963 | 9.9964 | 9.9971 | 9.9972 |
| log Zeit Sec | 8.1061v n | 9.0821v | 8.7046v | 8.7369 | 8.9757v | 9.2055v | 9.2758v |
| log ΔA | 0.2970 | 0.2970 | 0.2979 | 0.3069 | 0.3080 | 0.3184 | 0.3199 |
| Corr Δα Zeit Sec | 7.8091v n | 8.7851v | 8.4067v | 8.4390v | 8.6677v | 8.8871v | 8.9559v |
| Corr Δα Zeit | − 0,01 | + 0,06 | + 0,03 | + 0,03 | + 0,05 | + 0,08 | + 0,09 |
| log ½ ΔA | 0.0919 | 0.0919 | 0.0919 | 0.0919 | 0.0919 | 0.0919 | 0.0919 |
| log cos (β−α) | 9.9997 | 9.9962 | 9.9960 | 9.9953 | 9.9856 | 9.9555 | 9.9357 |
| log y | 0.0922 | 0.1157 | 0.0959 | 0.0966 | 0.1063 | 0.1364 | 0.1562 |
| y | 51 2 | 32 33 | 51 16 | 51 19 | 51 57 | 53 51 | 55 5 |
| −δ | +9 16 | +9 15 | +8 52 | +7 27 | +7 21 | +6 36 | +6 31 |
| y−δ | 60 18 | 61 48 | 60 8 | 58 46 | 59 18 | 60 27 | 61 36 |
| log (y−δ) | 9.9388 | 9.9451 | 9.9381 | 9.9320 | 9.9344 | 9.9395 | 9.9443 |
| Decl Corr. | 0.8367 | 0.8367 | 0.8367 | 0.8367 | 0.8367 | 0.8367 | 0.8367 |
| log (y−δ) Corr | 0.7755 | 0.7818 | 0.7748 | 0.7687 | 0.7711 | 0.7762 | 0.7810 |
| log ½ y | 9.8907 | 9.8998 | 9.8921 | 9.8924 | 9.8962 | 9.9071 | 9.9138 |
| log p. = Decl | 0.8848 | 0.8820 | 0.8827 | 0.8763 | 0.8749 | 0.8691 | 0.8672 |
| −½ ΔA | 0.2970 | 0.2970 | 0.2979 | 0.3069 | 0.3080 | 0.3184 | 0.3199 |
| log Δδ | 0.5878 | 0.5850 | 0.5848 | 0.5694 | 0.5669 | 0.5507 | 0.5473 |
| Corr Δδ | + 3″87 | + 3″85 | + 3″84 | + 3″71 | + 3″69 | + 3″55 | + 3″53 |

| | 1887 Juli 21 | Juli 24 | Juli 25 | Aug 21 | Aug 22 | Aug 26 |
|---|---|---|---|---|---|---|
| Ber. ☆ Zeit | 20h 38 31,5 | 19h 55 12,7 | 19h 34 37,1 | 21h 16 18,4 | 19h 58 50,6 | 21h 5 |
| ☉ = Bogen | 309 38 | 298 48 | 293° 39′ | 319 5 | 299 43 | 316 |
| ☆ = Bogen | 345 18 | 345 25 | 345 27 | 343 48 | 343 40 | 343 |
| ☆ − ☉ | −35 40 | −46 37 | −51 48 | −24 43 | −43 57 | −26 |
| log (β−α) | 9.7657 n | 9.8614 n | 9.8953 n | 9.6213 n | 9.8414 n | 9.652 |
| log für Zeit | 9.5686v | 9.5686v | 9.5686v | 9.5686v | 9.5686v | 9.568 |
| log (β−α) Corr. | 9.3343v n | 9.4300 n | 9.4639 n | 9.1899 n | 9.4100 n | 9.220 |
| log cos ☆ | 9.9863 | 9.9859 | 9.9857 | 9.9865 | 9.9866 | 9.987 |
| log Zeit Sec | 9.3480 n | 9.4441v n | 9.4782v n | 9.2034v n | 9.4234v n | 9.233 |
| log ΔA | 0.1423 | 0.1336 | 0.1307 | 0.0648 | 0.0630 | 0.056 |
| Corr Δα Zeit Sec | 9.2057v n | 9.3105v n | 9.3475v n | 9.1386v n | 9.3604v n | 9.176 |
| Corr Δα Zeit | − 0,16 | − 0,20 | − 0,22 | − 0,14 | − 0,23 | − 0,15 |
| log ½ ΔA | 0.0919 | 0.0919 | 0.0919 | 0.0919 | 0.0919 | 0.091 |
| log cos (β−α) | 9.9098 | 9.8369 | 9.7913 | 9.9583 | 9.8573 | 9.951 |
| log y | 0.1821 | 0.2550 | 0.3006 | 0.1336 | 0.2346 | 0.140 |
| y | 56 40 | 60 56 | 63 25 | 53 41 | 59 46 | 54 |
| −δ | −14 19 | −14 32 | −14 36 | −14 14 | −14 9 | −13 |
| y−δ | 42 21 | 46 24 | 48 49 | 39 27 | 45 37 | 40 |
| log (y−δ) | 9.8284 | 9.8598 | 9.8766 | 9.8031 | 9.8541 | 9.813 |
| Decl Corr. | 0.8367 | 0.8367 | 0.8367 | 0.8367 | 0.8367 | 0.836 |
| log (y−δ) Corr | 0.6651 | 0.6965 | 0.7133 | 0.6398 | 0.6908 | 0.648 |
| log ½ y | 9.9219 | 9.9415 | 9.9515 | 9.9062 | 9.9365 | 9.908 |
| log p. = Decl | 0.7432 | 0.7550 | 0.7618 | 0.7336 | 0.7543 | 0.740 |
| −½ ΔA | 0.1423 | 0.1336 | 0.1307 | 0.0648 | 0.0630 | 0.056 |
| log Δδ | 0.6009 | 0.6234 | 0.6311 | 0.6888 | 0.6913 | 0.685 |
| Corr Δδ | + 3″99 | + 4″20 | + 4,28 | + 4,66 | + 4,91 | + 4, |