

## Observations of Comet 1889 IV (Davidson)

made at the Melbourne Observatory with the South Equatorial and Dark field Micrometer.

| 1889 | Melb. M. T. | $\Delta\alpha$                                    | $\Delta\delta$                       | Cp.        | $\alpha$ app. | $\log p.\Delta$                                     | $\delta$ app. | $\log p.\Delta$ | Red. ad l. app.    | *                            |    |
|------|-------------|---------------------------------------------------|--------------------------------------|------------|---------------|-----------------------------------------------------|---------------|-----------------|--------------------|------------------------------|----|
| July | 23          | 8 <sup>h</sup> 54 <sup>m</sup> 43 <sup>s</sup> .2 | + 5 <sup>m</sup> 23 <sup>s</sup> .88 | + 15' 4".0 | 3             | 12 <sup>h</sup> 46 <sup>m</sup> 10 <sup>s</sup> .98 | 9.698         | — 32° 27' 35".7 | 0.467 <sub>n</sub> | + 0 <sup>s</sup> .37 — 11".2 | 1  |
|      | 25          | 9 53 16.7                                         | — 3 15.39                            | + 2 27.9   | 1             | 13 11 9.06                                          | 9.704         | — 26 47 15.0    | 0.603 <sub>n</sub> | + 0.58 — 9.0                 | 2  |
|      | 26          | 11 30 36.0                                        | + 8 6.10                             | + 8 58.8   | 2             | 13 23 8.26                                          | 9.708         | — 23 44 25.9    | 0.726 <sub>n</sub> | + 0.51 — 8.0                 | 3  |
|      | 29          | 9 33 51.8                                         | + 2 38.93                            | + 4 19.9   | 5             | 13 52 15.94                                         | 9.637         | — 15 31 36.7    | 0.645 <sub>n</sub> | + 0.71 — 4.5                 | 4  |
|      | 29          | 9 52 49.6                                         | — 6 49.39                            | + 18 48.2  | 1             | 13 52 22.56                                         | 9.654         | — 15 29 30.2    | 0.659 <sub>n</sub> | + 0.77 — 4.3                 | 5  |
|      | 30          | 7 21 31.6                                         | — 13 13.74                           | + 6 47.4   | 3             | 14 0 19.23                                          | 9.363         | — 13 5 6.7      | 0.595 <sub>n</sub> | + 0.84 — 3.2                 | 6  |
| Aug. | 1           | 9 53 18.1                                         | + 1 7.19                             | — 9 40.1   | 7             | 14 17 18.08                                         | 9.631         | — 7 44 39.8     | 0.700 <sub>n</sub> | + 0.81 — 1.0                 | 7  |
|      | 2           | 9 16 26.1                                         | + 2 51.66                            | + 10 13.7  | 5             | 14 24 27.24                                         | 9.584         | — 5 26 56.7     | 0.704 <sub>n</sub> | + 0.81 — 0.2                 | 8  |
|      | 2           | 10 9 48.9                                         | — 0 30.23                            | — 3 25.1   | 7             | 14 24 43.35                                         | 9.640         | — 5 21 56.3     | 0.716 <sub>n</sub> | + 0.83 0.0                   | 9  |
|      | 18          | 6 59 46.9                                         | + 0 41.29                            | — 2 17.7   | 10            | 15 40 21.69                                         | 9.155         | + 17 34 43.6    | 0.861 <sub>n</sub> | + 0.88 + 9.7                 | 10 |

Observer P. Baracchi.

## Mean Places of the Comparison Stars for 1889.0

| * | $\alpha$ 1889.0                                     | $\delta$ 1889.0 | Authority                                      | *  | $\alpha$ 1889.0                                     | $\delta$ 1889.0 | Authority                     |
|---|-----------------------------------------------------|-----------------|------------------------------------------------|----|-----------------------------------------------------|-----------------|-------------------------------|
| 1 | 12 <sup>h</sup> 40 <sup>m</sup> 46 <sup>s</sup> .73 | - 32° 42' 28".5 | Stone 7058                                     | 5  | 13 <sup>h</sup> 59 <sup>m</sup> 11 <sup>s</sup> .18 | - 15° 48' 14".1 | Yarn. 5816                    |
| 2 | 13 14 23.87                                         | - 26 49 33.9    | 1/3 (Y. 5515 + 2 Cord.ZC. 13 <sup>h</sup> 528) | 6  | 14 13 32.13                                         | - 13 11 50.9    | Yarn. 5911                    |
| 3 | 13 15 1.65                                          | - 23 53 16.7    | Stone 7314                                     | 7  | 14 16 10.08                                         | - 7 34 58.7     | Arm. 1668                     |
| 4 | 13 49 36.30                                         | - 15 35 52.1    | 1/4 (Lal. 25596 + 3 AOe <sub>2</sub> 13247)    | 8  | 14 21 34.77                                         | - 5 37 10.2     | 1/2 (N 7 yr. + Gl. 3577)      |
|   |                                                     |                 |                                                | 9  | 14 25 12.75                                         | - 5 18 31.2     | Yarn. 5990                    |
|   |                                                     |                 |                                                | 10 | 15 39 39.52                                         | + 17 36 51.6    | 26 Serp. Melb. Trans. Circle. |

The comet was first discovered by Mr. J. Ewen Davidson of Branscombe, Mackay, Queensland on July 19<sup>th</sup>. Mr. Davidson thus describes the comet when first seen: »Bright nucleus about 5<sup>th</sup> magnitude, 5 minutes diameter, no tail, but extension of nebulosity s. f.« When first seen at Melbourne, July 22, it was described »sharp stellar nucleus 5 to 6 magnitude, tail s. f. 30 minutes long, diameter of about 5 minutes, easily visible to naked eye.«

Elements computed from observations of July 23, 26 and 29.

$$T = 1889 \text{ July } 19.28958 \text{ Greenw. M. T.}$$

$$\begin{aligned} \omega &= 345^\circ 52' 27'' \\ \Omega &= 286 \quad 8 \quad 17 \\ i &= 66 \quad 1 \quad 53 \end{aligned} \quad \left. \begin{array}{l} \\ \\ \end{array} \right\} \text{M. Equ. 1889.0}$$

$$q = 1.03975$$

Obs. — Comp.

$$\cos \beta . \Delta l = -1".3 \quad \Delta \beta = +2".0.$$

Observatory Melbourne 1889 Sept. 11.

Rob. L. J. Ellery.

## Verschiedene Beobachtungen auf der Sternwarte in Göttingen.

## Sternbedeckungen.

|                  |              |          |            |                                                   |        |             |         |                                                                                                    |
|------------------|--------------|----------|------------|---------------------------------------------------|--------|-------------|---------|----------------------------------------------------------------------------------------------------|
| $\rho$ Leonis    | 1887 März 8  | Eintritt | dunkl. Rd. | 9 <sup>h</sup> 42 <sup>m</sup> 7 <sup>s</sup> .62 | M. Zt. | Beob. Schur | $M$ 164 | gut, Mond sehr nahe voll.                                                                          |
|                  |              |          |            | 7.24                                              | »      | Leitzmann   | $d$ 68  |                                                                                                    |
|                  |              |          |            | 6.32                                              | »      | Clemens     | $S$ 128 | zweifelhaft.  |
|                  |              | Austritt |            | 10 44 16.52                                       | »      | Clemens     | $S$ 128 | gut.                                                                                               |
| $\delta^2$ Tauri | 1889 Jan. 12 | Eintritt | dunkl. Rd. | 11 14 15.12                                       | »      | Schur       | $H$ 105 | gut.                                                                                               |
|                  |              |          |            | 15.12                                             | »      | Clemens     | $S$ 128 | plötzlich.                                                                                         |

## Partielle Mondfinsterniss 1889 Januar 16.

Beobachter Clemens. Fernrohr  $S$  63.

|                                         | Eintritt                                        | Austritt   |          |           | Eintritt                                        | Austritt   |
|-----------------------------------------|-------------------------------------------------|------------|----------|-----------|-------------------------------------------------|------------|
|                                         | Mittl. Zt.                                      | Mittl. Zt. |          |           | Mittl. Zt.                                      | Mittl. Zt. |
| Eintritt der Finsterniss sicher erfolgt | 16 <sup>h</sup> 38 <sup>m</sup> 23 <sup>s</sup> | —          | Grimaldi | Ost-Rand  | 16 <sup>h</sup> 46 <sup>m</sup> 18 <sup>s</sup> | —          |
| Crüger Mitte                            | 16 43 23                                        | —          | »        | West-Rand | 16 49 16                                        | —          |