**Table 2.** Results of the O-C analysis. Sources for the times of maxima: 1) Kiss et al. (1999), 2) present work.

| i | $T_i$(HJD) 2400000.+ | $E_i$ (cycles) | (O–C) (days) | Source |
|---|---|---|---|---|
| 1 | 51032.3936 | -2322 | 0.0041 | 1 |
| 2 | 51037.4134 | -2295 | 0.0001 | 1 |
| 3 | 51080.3928 | -2064 | -0.0015 | 1 |
| 4 | 51110.3465 | -1903 | -0.0043 | 1 |
| 5 | 51464.4364 | 0 | 0.0035 | 2 |
| 6 | 51490.2981 | 139 | 0.0021 | 2 |
| 7 | 51752.4565 | 1548 | -0.0053 | 2 |
| 8 | 51753.3981 | 1553 | 0.0059 | 2 |
| 9 | 51755.4384 | 1564 | -0.0005 | 2 |
| 10 | 51810.6989 | 1861 | -0.0014 | 2 |
| 11 | 51812.7500 | 1872 | 0.0030 | 2 |
| 12 | 51813.6727 | 1877 | -0.0046 | 2 |
| 13 | 51815.7169 | 1888 | -0.0071 | 2 |
| 14 | 51981.6955 | 2780 | 0.0013 | 2 |
| 15 | 51982.6292 | 2785 | 0.0047 | 2 |

**Table 5.** Results from the Fourier analysis applied to the data collected by Kiss et al. (1999) and the Hipparcos satellite (ESA 1997). The corresponding $T_{or}$ are: $2451032.^{d}3149$ for the 1998 *vby* data, $2451087.^{d}2514$ for the 1998 BV data and $2447862.^{d}0393$ for the Hipparcos $H_p$ data

| | $v$ | | $b$ | | $y$ | | $B$ | | $V$ | | $H_p$ | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Frequency ($cd^{-1}$) | A (mmag) | $\varphi$ (rad) | A (mmag) | $\varphi$ (rad) | A (mmag) | $\varphi$ (rad) | A (mmag) | $\varphi$ (rad) | A (mmag) | $\varphi$ (rad) | A (mmag) | $\varphi$ (rad) |
| | ±1.51 | | ±1.39 | | ±0.92 | | ±1.49 | | ±2.47 | | ±1.72 | |
| $f_1$=5.3745 | 119.07 | 2.022 | 96.09 | 2.003 | 79.97 | 2.009 | 114.40 | 3.623 | 80.23 | 3.582 | 86.33 | 5.381 |
| | | 13 | | 15 | | 12 | | 13 | | 31 | | 20 |
| $2f_1$=10.7490 | 12.51 | 0.618 | 10.89 | 0.572 | 9.59 | 0.283 | 20.29 | 4.290 | 17.38 | 4.182 | 10.49 | 0.683 |
| | | 122 | | 129 | | 96 | | 72 | | 139 | | 165 |
| mean value | 8.1119 | | 7.7439 | | 7.4922 | | 7.8481 | | 7.4987 | | 7.5828 | |
| (mag) | 11 | | 10 | | 7 | | 10 | | 17 | | 12 | |
| residuals (mmag) | 16.5 | | 15.2 | | 10.0 | | 11.8 | | 19.6 | | 13.6 | |

**Table 7.** Photometry (normal points) of V2109 Cyg

| Phase | V | b-y | $m_1$ | $c_1$ | $\beta$ |
|---|---|---|---|---|---|
| 0.00 | 7.408 | 0.205 | 0.171 | 0.890 | 2.760 |
| 0.05 | 7.410 | 0.205 | 0.171 | 0.890 | 2.758 |
| 0.10 | 7.421 | 0.209 | 0.171 | 0.884 | 2.756 |
| 0.15 | 7.438 | 0.214 | 0.171 | 0.874 | 2.752 |
| 0.20 | 7.461 | 0.220 | 0.171 | 0.862 | 2.745 |
| 0.25 | 7.484 | 0.226 | 0.171 | 0.847 | 2.740 |
| 0.30 | 7.504 | 0.231 | 0.171 | 0.833 | 2.736 |
| 0.35 | 7.523 | 0.237 | 0.172 | 0.821 | 2.732 |
| 0.40 | 7.540 | 0.241 | 0.172 | 0.811 | 2.727 |
| 0.45 | 7.554 | 0.243 | 0.172 | 0.802 | 2.723 |
| 0.50 | 7.564 | 0.245 | 0.173 | 0.794 | 2.722 |
| 0.55 | 7.570 | 0.245 | 0.173 | 0.792 | 2.722 |
| 0.60 | 7.571 | 0.244 | 0.172 | 0.795 | 2.725 |
| 0.65 | 7.563 | 0.241 | 0.172 | 0.799 | 2.728 |
| 0.70 | 7.545 | 0.237 | 0.172 | 0.806 | 2.733 |
| 0.75 | 7.521 | 0.231 | 0.172 | 0.818 | 2.738 |
| 0.80 | 7.492 | 0.223 | 0.171 | 0.834 | 2.743 |
| 0.85 | 7.461 | 0.216 | 0.171 | 0.854 | 2.749 |
| 0.90 | 7.434 | 0.210 | 0.171 | 0.872 | 2.755 |
| 0.95 | 7.416 | 0.206 | 0.171 | 0.884 | 2.759 |