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OBSERVATIONS OF THE PERIOD OF γ Leo

The eclipsing variable γ Leo was observed photographically by the writers in Bouzaréah Observatory (Algiers) with the normal astrophotograph (D=340 mm; F=344 cm), using ORWO ZU - 1 plates.

Twenty observations were obtained during three nights, from which a normal minimum has been determined: JD hel $2442514^d4370^m0^s0003$. A study of minimum moments obtained by various observers in the interval JD 2418 050-2442540 suggests a sinusoidal variation of the period of γ Leo with $P_1 \approx 12400 \cdot P \approx 57 \frac{1}{4}$ years, on which irregular (abrupt) variations were superposed.

The new light elements of γ Leo were obtained:
Min I hel = JD $2433689^d4726^m1^s6860807$ E + 0^d0270 sin $0^o032258$ (E+7950).

If the presence of a third body in the system were the cause of the sinusoidal variation of the period, its mass should be $M_3 \approx 0.65 M_\odot$, assuming $M_1 = 1.6 M_\odot$; $M_2 = 0.55 M_\odot$; $i = 85^\circ 2'$, according to the data of Svechnikov's catalogue (Publ. Ural. Univ. 88, Ser. Astr. N5, 1969).

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