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REMARK ON THE PERIOD OF AU MONOCEROTIS

From a series of photoelectric observations, L. Lorenzi (1) has determined four epochs of primary minimum of AU Monocerotis. Taking furthermore into consideration the other visually observed primary minima, he determined a rapid cyclic variation of the orbital period. In this way, Lorenzi concluded "AU Mon shows unusually rapid fluctuations in the epochs of minima; if these fluctuations can be represented by a formula of type (7), the only possible physical interpretation is an apsidal motion".

Now, having in view the very short value of the apsidal period ($P_{\text{aps.}} = 243^{\text{d}}.23?$) and the general difficulties concerning apsidal period determination, we propose new series of observations which could be done in the winter of the next year.

- In order to resume the corresponding cyclic variation which was found by Lorenzi, new primary minima could be observed in February - March of the next year.

- In order to prove the presence of apsidal motion, secondary minima must be observed. The coming winter and spring (January - May) are very suitable for such observations.

- As the corresponding orbital period is $P = 11^{\text{d}}.11306$, there are few suitable nights for observations in a season, that is why an extensive co-operation is very much required.

- In order to stimulate the interest of the observers for this star, we give here the corresponding ephemeris for the two kinds of minima.

Lorenzi's elements are used :

$$M(E) = 2442801.3602 + 11^{\text{d}}.11306 \cdot E.$$

Primary minima	Secondary minima
J.D.hel	J.D.hel
2443112.526	2443118.082
123.639	129.195
134.752	140.309
145.865	151.422
156.978	162.535
168.091	173.648
179.204	184.761
190.317	195.874
201.430	206.987
212.543	218.100
223.656	229.213
234.770	240.326
245.883	251.439
256.996	262.552
268.109	273.665
279.222	284.778

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Reference:

Lorenzi, L. 1976, Astron. and Astrophys. 29, 10, 1976 (in press)