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ON THE PERIOD OF SW Lac

SW Lac is one of the well observed W UMA-type stars. The average lengths of period of this star were given by Purgathofer and Prohazka (1966):

Table 1

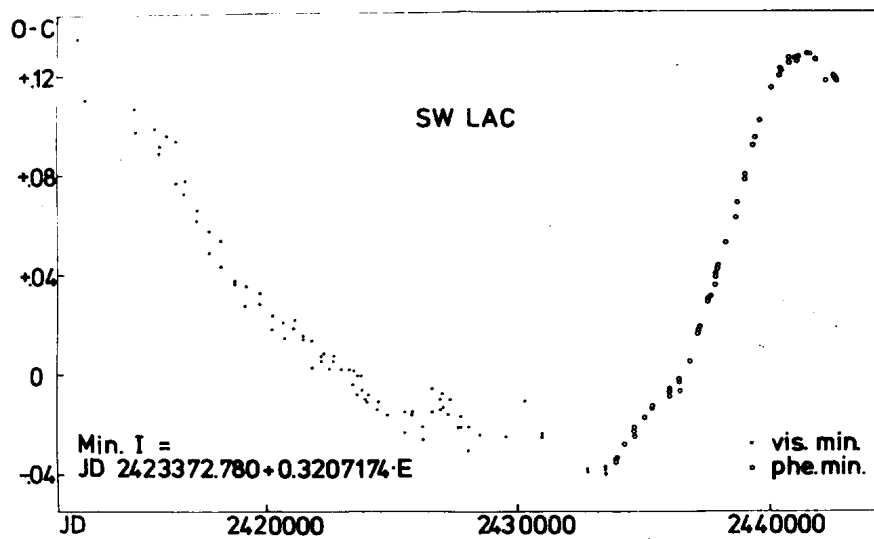
Years	Period	Change of period	ΔP
1893-1914	0.3207124		
1914-1928	0.3207151	JD 2419990	+0.23
1928-1951	0.3207166	2425210	+0.13
1951-1960	0.3207213	2433690	+0.41
1960-1968	0.3207282	2436755	+0.60
1973-	0.3207144		-1.19

It can be seen from Table 1 and from the O-C curve (Fig.1) that the period was increasing in the years 1893-1968. The analysis of the photoelectric times of minima from the years 1969-1976 leads to the conclusion that the period of SW Lac decreased 1.2 sec in the years 1969-1973.

The possible reason of this decrease of the period may be:

1. The O-C curve has a periodical nature with a period of about 80 years and the changes in the period of SW Lac might be due to the existence of a third component, as it was mentioned by Schilt (1923) - but there is no evidence for a third body in this system.
2. The changes of period are attributed to the intrinsic variability of SW Lac, mainly to the active mass exchange processes in the system.

Further photoelectric observations of this interesting system and determinations of times of minima would be highly desirable.



Predictions of times of minima for the near future are given by the formula:

$$\text{Min. I} = \text{JD } 244\ 2697.404 + 0.3207144 \cdot E.$$

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