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NEW MINIMUM TIMES OF THE W UMA STAR SW LACERTAE

SW Lac is well known to have a variable period (see e.g. Panchatsaram and Abhyankar, 1981 and the references therein). In 1977, a sudden period change was observed (Mikolajewska and Mikolajewski, 1981).

We made new photoelectric measurements of SW Lac in 1980 with the 75 cm telescope of the Wilhelm Foerster Observatory Berlin and in 1981 with the 106 cm and the 36 cm Cassegrain telescopes of the Observatorium Hoher List. The 75 cm telescope is equipped with a single channel, uncooled photometer with an 1P21 photomultiplier, standard UBV filters and an integrating amplifier. As integration time we used 10 seconds. The 106 cm telescope is equipped with a double beam, uncooled photometer with two 1P28B photomultipliers, standard UBV filters and integrating amplifiers. The 36 cm telescope has an uncooled, single beam photometer with an 1P21 photomultiplier, standard UBV filters and a usual DC amplifier.

From our B and V measurements, we determined five times of secondary minima by the Pogson method. They are listed in the table. The O-C values are calculated with the ephemeris of Kreiner and Frasinika (1977):

$$t_{\min,0} = 2442697.^d_404 + 0.^d_320724716 \cdot E . \quad (1)$$

Table : New photoelectric minima times of SW Lac

Jul. Date _o	C	n	E	O-C	telescope
2444 444. ^d 5211	b	67	5447.5	- 0. ^d 0307	75 cm
444.5213	v	67			
816.5570	b	19	6607.5	- 0.0356	106 cm
852.4793	b	58	6719.5	- 0.0349	36 cm
852.4784	v	58			
853.4400	b	48	6722.5	- 0.0352	36 cm
853.4414	v	49			
854.4045	b	22	6725.5	- 0.0348	36 cm
854.4021	v	25			

C: colour, n: number of individual measurements, E: epoch according to (1). The error of each individual determination is about 0.^d0005, E and O-C are calculated for the unweighted mean values of the minima times in b and v.

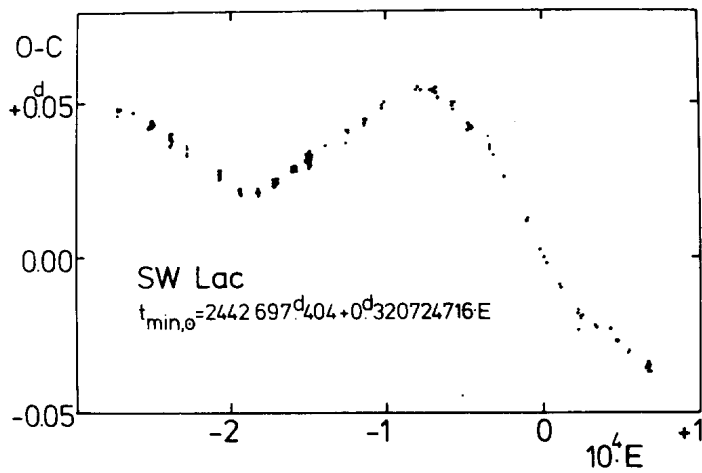


Figure 1

The figure shows the resulting O-C diagram of all (photo-electrical) minima which were collected from Panchatsaram and Abhyankar (1981), Aslan et.al. (1981), Pohl and Gülmen (1981), Margrave (1982) and the values of the table. Since the period jump in 1977, no further period change occurred. A discussion of the lightcurves will be given elsewhere.

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