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PERIOD VARIATIONS OF SS Ari

SS Ari (BD +23°279) is an eclipsing binary of W UMa-type. The new photoelectric observations of this system were carried out in October, 1982. A single channel photometer attached to the 60 cm reflector of the Ostrowik Station of the Warsaw University Observatory was used. Based on our observations we calculated three individual times of minima. They were determined with the method of Kwee and Van Woerden (1956) and are given below:

JD Hel	c		Colour
2445261.3843	0.0002	Min II	V
.3856	0.0005		B
2445261.5859	0.0002	Min I	V
.5861	0.0004		B
2445262.3992	0.0003	Min I	V
.3982	0.0003		B

Figure 1 shows the O-C diagram. It is based on the data available in literature.

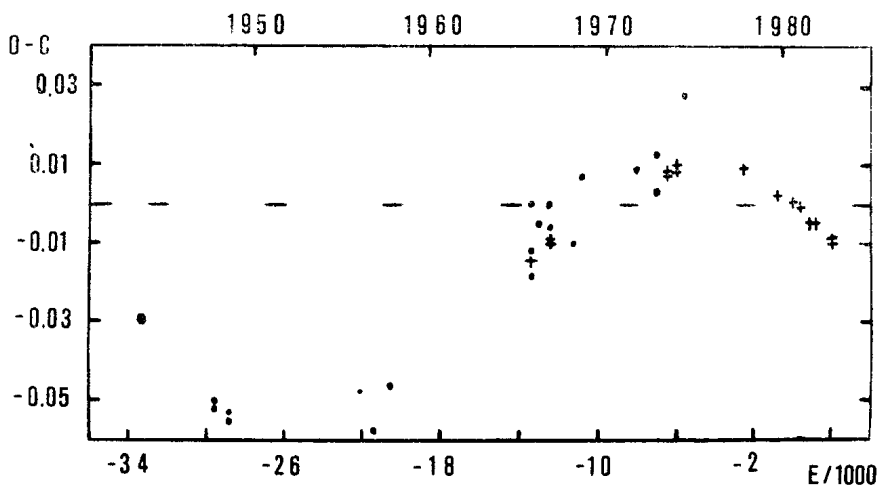


Figure 1

The crosses denote photoelectric times of minima, the dots visual or photographic ones. The minimum at  $E = -33\ 304$  is a mean value from 12 visual minima. The O-C deviations were calculated using the ephemeris:

$$\text{HJD Min I} = 2444469.5060 + 0.40599174 E$$

One can see that the O-C diagram has a sine-like shape. This suggests a presence of a third body in the system. However basing on the available data we cannot rule out a possibility that the period variations of SS Ari are not continuous. The abrupt character of changes of the period is typical for most W Uma-type systems.

Future determinations of the times of minima of SS Ari would be useful. The detailed analysis of the light curves of SS Ari will be published in Acta Astronomica.

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