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ON TWO SEMIREGULAR VARIABLE STARS RS SAGITTAE AND RZ VULPECULAE

Observations of these variable stars have been obtained by me from plates of Moscow and Simeis Collections. Most observations were published (1).

Both stars appear to show properties similar to those of RV Tau (b)-type variables; i.e. fast periodic variations superimposed upon slow fluctuations of mean light. The slow variations of mean light of RS Sge (see above) are given in Fig.1. The amplitudes are rather large. Besides, they are variable too. If these variations are cyclic, the cycles may exceed 6000 days. Smooth variation of amplitude in RZ Vul is of particular interest. It is a phenomenon never observed in RV Tau(b)-type stars. The elements of slow variations are given in Table 1.

Fast fluctuations are superimposed upon slow ones, the amplitudes of which reaches 1.5 mag. The elements of fast variations are summarized in Table 2. The period of RZ Vul has been noticed to vary throughout the observations, so one has to use two systems of elements.

In Fig.2 and 3 the fragments of the light curve are given which characterize the fast fluctuation in the light of RZ Vul.

V. TSESSEVICH
Odessa Astronomical
Observatory

Reference:
(1) V.P. Tsessevich and B.A. Dragomoretska, "RW Aurigae stars. Photographic Observations of Brightness", Kiev, 1973, Naukova Dumka

Table 1

Elements of slow variations

Star	Interval JD	Max.	Min.	Period
RS Sge	2436000-2443000	2435999	2436596	1124^d
RZ Vul	2436000-2443000	2437807	2438458	1196

Table 2

Elements of fast fluctuations superposed on slow ones

Star	Interval JD	Max.	Min.	Period
RS Sge	2436000-2443000	2436057.2	2436077.7	41.1975
RZ Vul	2436074-2440815	2436434.4	2436416.1	39.8415
"	2441429-2442961	2441454.1	2441433.9	40.2156

Fig.1

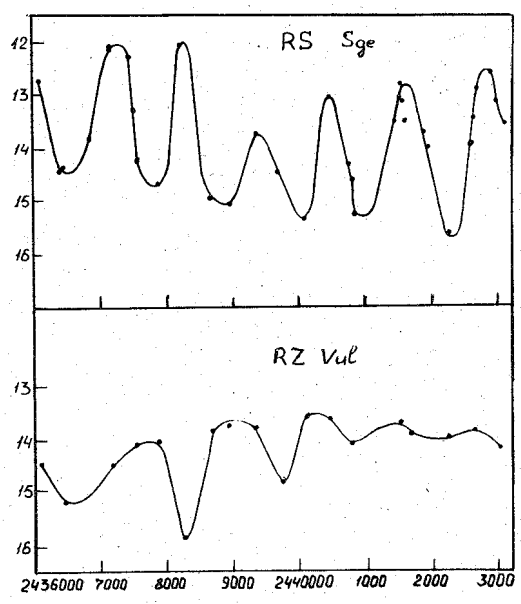
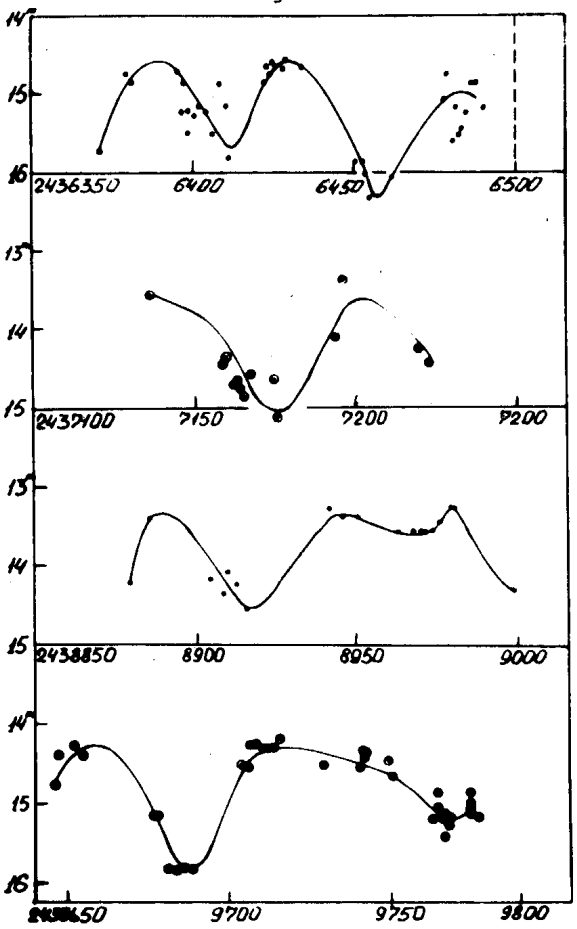


Fig.2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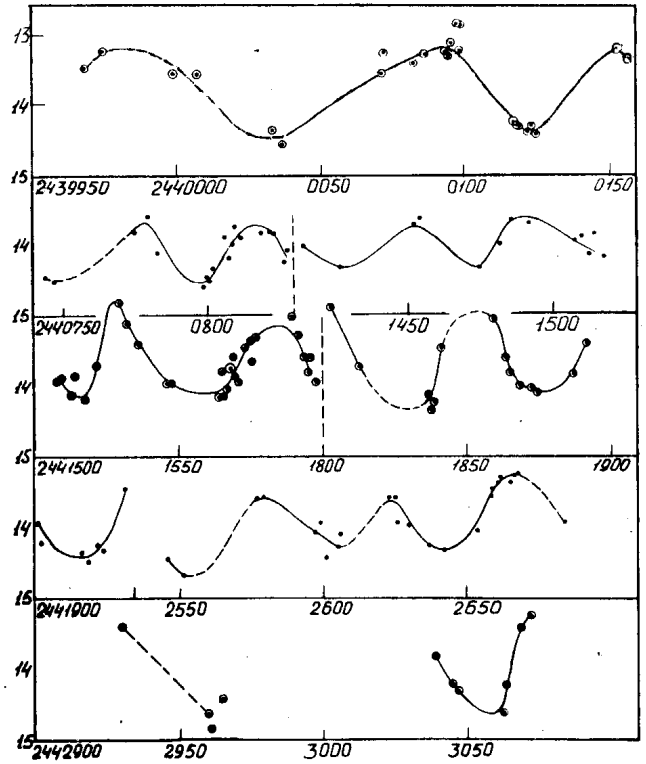
9750
9800

Fig.3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