

COMMISSION 27 OF THE I.A.U.
 INFORMATION BULLETIN ON VARIABLE STARS
 NUMBER 103

Konkoly Observatory
 Budapest
 24 July 1965

ROSINO'S OBJECT

On November 17, 1961 Rosino (1) discovered a variable star of 14th magnitude at maximum near the galaxy NGC 4501 (M 88). A second outburst of the star was observed by Zwicky (2) on March 26-27, 1965 at Palomar. Moreover, the writer (3) was able to find an old maximum on April 26, 1892 inspecting the Isaac Roberts Plates. In the following Table the Asiago observations during the recent outburst are given. All the plates were obtained with the 50-40 cm Schmidt telescope, except that of May 2, taken with the 122 cm reflector. The comparison stars are given in (3). The magnitudes between brackets are derived from panchromatic emulsions and are only indicative. A 103a-0 plate + UG2 filter taken on April 29 shows that the variable has a strong ultraviolet emission.

Plate No.	Date	UT	m_{pg}
5402	March 27, 1965	21 ^h 25 ^m	(12.9)
5449	April 3	22 31	(13.6)
5469	22	21 26	15.5
5480	29	23 15	17.3
7022	May 2	23 41	18.9
5502	3	23 21	18.6:
5507	June 17	21 46	[17
5540	25	22 18	[17

These data show that the variable has fallen down of six magnitudes in about one month. The rate of this decline is comparable with that of the 1961 outburst (3). The 1965 observations so far published do not show what has been the main peculiarity of the light

curve in 1961; namely the deep minimum on December 8. With this regard it should be noted that the star has not been observed at Asiago on December 5-6, 1961, contrarily to what is reported in (4). The observation at the Crimean Observatory on December 5-6, giving $m_{pg} = 15.8$ allows then to establish that the decline of this secondary minimum was less rapid than the rising, which took place in less than one day.

Concerning the membership of the present variable star to the class of recurrent novae or U Geminorum, it is very difficult to give a definitive answer at the present time. However the 1961 observations at Asiago, i.e. continuous spectrum without emission lines on November 22 and December 12, color B-V = 0.0 on December 16, indicate that the star might be assigned to the U Geminorum class. In any case the object is a very peculiar one and should be constantly followed in the future.

- (1) IAU Circular No. 1782, 1961
- (2) IAU Circular No. 1902, 1965
- (3) Ann. d'Ap. 27, 298, 1964
- (4) Astron. Cir. USSR No. 327, 1965

Asiago Astrophysical Observatory, July 1965

F. BERTOLA