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FAST CHANGES IN THE SHAPE OF THE LIGHT CURVE  
OF THE OLD NOVA V603 Aql

V603 Aql (Nova 1918) is a relatively little studied object despite being the brightest old nova. In particular it was only in 1985 that it was found that its photometric and spectroscopic periods differ by several percent (Häfner and Metz 1985). In this short communique we report preliminary results of 9 white light photometric runs obtained in July/August 1988 and spanning 29 days altogether (Table 1). With the double beam photometers we observed simultaneously V603 Aql and the comparison star BD+0°4026. On all occasions 20 seconds integration times were used. In order to remove effects of atmospheric extinction we divided variable star counts by comparison star counts.

In Figure 1 samples of our results are presented. In particular we would like to draw attention to substantial changes in the shape and amplitude of light curves obtained on consecutive nights. On the one hand presence of such changes interferes with the study of the photometric period, to the extent of it being undetectable on some occasions (Slovak 1981). Thus one of our motivations to reobserve this star was to confirm Häfner and Metz findings. On the other hand presence of the changes and difference of the two periods point to some mechanism of light variation independent of orbital motion. Were the mechanism related in one or other way to accretion, modulation of the light curve by changes in the accretion rate would arise in a natural way.

Apart from the periodic variations some light curves exhibit violent flickering. Any effects of the instrumental origin are less than 0.01 mag in amplitude as may be appreciated by looking on the uncorrected for extinction comparison star light curve obtained simultaneously and presented also in Figure 1.

The observations were obtained with the twin 60-cm telescopes of High Pedagogical School (WSP) in Cracow and Warsaw University Observatories located respectively at Mt. Suhora 70 km south of Cracow and at Ostrowik near Warsaw. At Mt. Suhora we used a double beam photometer donated by the European South-

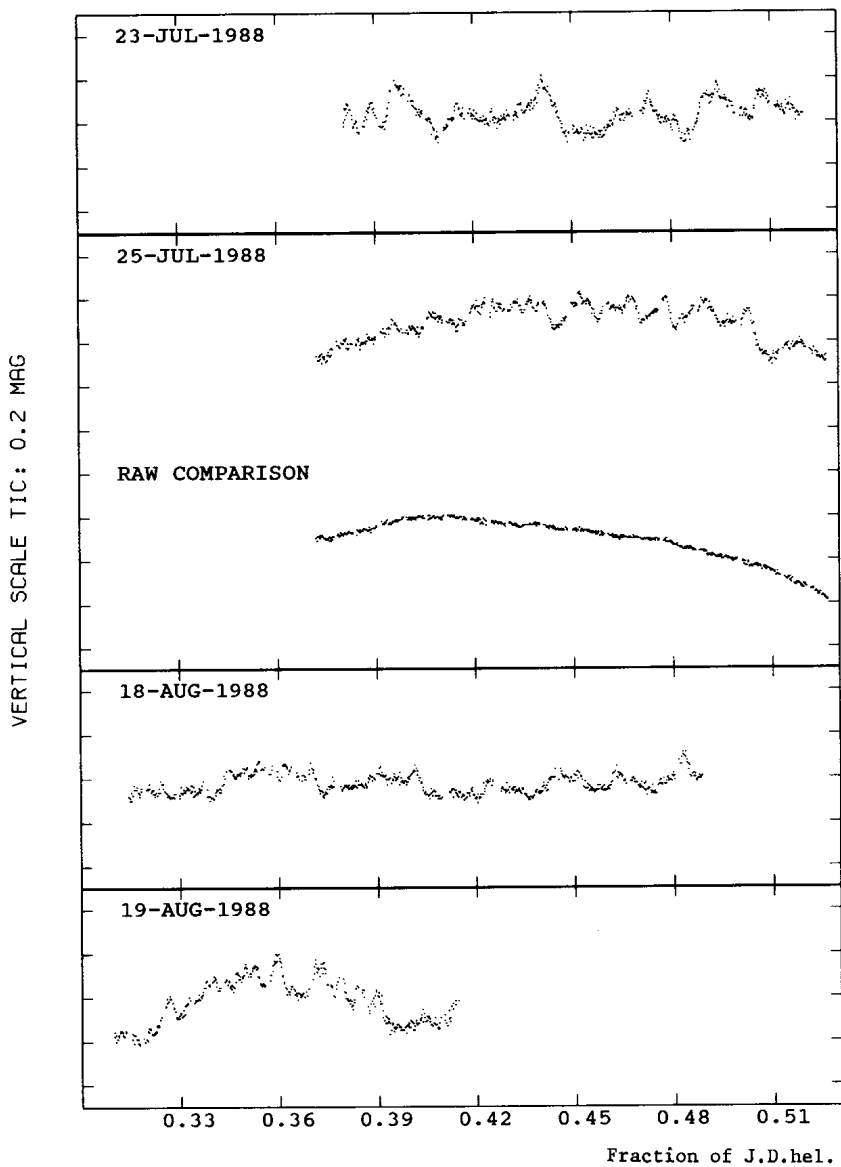


Figure 1

**Table 1.** Journal of the Observations.

No.	Date	Run Start (J.D.hel.-2447300)	Duration (day)	Telescope
1	1988-07-23	66.381	0.139	Mt. Suhora
2	1988-07-25	68.372	0.155	Ostrowik
3	1988-07-26	69.358	0.171	Ostrowik
4	1988-08-14	88.339	0.161	Ostrowik
5	1988-08-17	91.318	0.019	Mt. Suhora
6	1988-08-18	92.315	0.173	Mt. Suhora
7	1988-08-19	93.310	0.104	Mt. Suhora
8	1988-08-20	94.311	0.154	Mt. Suhora
9	1988-08-21	95.324	0.147	Mt. Suhora

ern Observatory to Warsaw Observatory following the initiative and through the action of Prof. Edward H. Geyer. The Ostrowik double beam photometer and the data acquisition systems for both telescopes were developed in Warsaw University Observatory (Szymański and Udalski 1988). Observations at Mt. Suhora were possible thanks to the invitation to collaboration by the Director of the new observatory, Prof. Jerzy M. Kreiner. Support from grant CPBP 164 is gratefully acknowledged.

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