

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

Number 3436

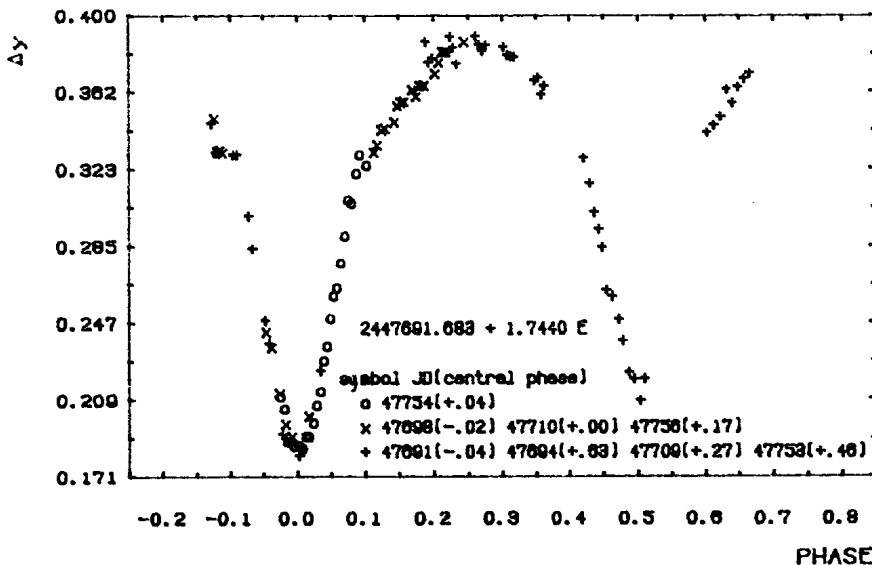
Konkoly Observatory  
 Budapest  
 1 March 1990  
 HU ISSN 0374 - 0676

V 3903 SAGITTARI: ANOTHER O-TYPE ECLIPSING BINARY

V 3903 Sgr (HD 165921, CD -24°13962, SAO 186366) is located in the region of the open cluster Collinder 367 (Clariá, 1976) and is a possible member of the R association Simeis 188 (Herbst et al., 1982). It is classified as a spectroscopic binary (Conti and Alschuler, 1971) with components of early spectral type (O7 and O9, Niemela and Morrison, 1988). Cousins (1973) and Clariá (1976) have both found variations in the brightness of the system with amplitude of 0.16 mag in V, but no light curve has been published.

As a part of a Brazilian-Danish-Spanish project of studies

V3903 Sgr



of eclipsing binaries this star was observed on 8 nights, from June to August 1989, using a conventional one-channel photoelectric photometer with the ZEISS (JENA) 60 cm telescope of the Laboratório Nacional de Astrofísica (LNA-CNPq-SCT), Brasópolis, MG, Brazil. The light curve shown in the figure was obtained using the following ephemeris, with the period determined using the method of Lafler and Kinman (1965, with all 4 colours), and the time of minimum determined by means of a 2nd degree polynomial :

$$\text{Min 1} = 2447691.683 + 1.7440 E$$

±1                      ±1

The period determined from our photometric observations is not very different from the spectroscopic one given by Niemela and Morrison (1988), of  $1.744215 \pm 0.000005$  day.

More observations are being reduced, and we plan to obtain further photometric data for a complete study (period, times of minima and photometric elements), which will appear elsewhere.

N.C.S. CUNHA<sup>(1)</sup>, L.P.R. VAZ<sup>(1)</sup>, C.M.M. POSSA<sup>(1)</sup>,  
BODIL E. HELT<sup>(2)</sup>, J.V. CLAUSEN<sup>(3)</sup>

- (1) Depto. de Física-ICEX-Universidade Federal de Minas Gerais  
Caixa Postal 702 - CEP 30.161 - Belo Horizonte- MG - Brazil  
(2) Copenhagen University Observatory  
Øster Voldgade 3 - DK 1530 - Copenhagen - Denmark  
(3) Copenhagen University Observatory  
Brorfeldeveje 23 - DK 4340 - Tollose - Denmark

#### References:

- Clariá, J.J.: 1976, *Inf. Bul. Var. Stars*, nº 1106  
Conti, P.S., Alschuler, W.R.: 1971, *Astrophys. J.* **170**, 325  
Cousins, A.W.J.: 1973, *Mon. Notes Astron. Soc. South Africa* **32**, 11  
Herbst, W., Miller, D.P., Warner, J.W., Herzog, A.: 1982, *Astron. J.* **82**, 98  
Lafler, J., Kinman, T.D.: 1965, *Astrophys. J. Suppl. Ser.* **11**, 216  
Niemela, V. Morrison, M.D.: 1988, *Publ. Astron. Soc. Pacific* **100**, 1436