

PHOTOELECTRIC B AND V PHOTOMETRY OF COMPARISON STARS
FOR U CYG AND X OPH

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ABSTRACT

: PHOTOELECTRIC B AND V PHOTOMETRY OF COMPARISON STARS
FOR U CYG AND X OPH

The comparison stars for these two Mira-type variable stars
have been measured in the B- and V-bands of the Geneva photometric
system at Jungfrauoch Observatory.

RESUME

: MESURES PHOTOELECTRIQUES B ET V DES SEQUENCES DE COMPARAISON
de U Cyg et X Oph

Les étoiles de comparaison de ces deux variables de type MIRA
ont été mesurées en 2 couleurs B et V du système photométrique
de Genève, à l'Observatoire du Jungfrauoch.

RIASSUNTO

: MISURE FOTOELETTRICHE B e V DELLE SEQUENZE DI CONFRONTO DI
U CYG E X OPH

Le stelle di confronto di queste due variabili tipo Mira sono
state misurate all'Osservatorio dello Jungfrauoch nei due
colori B e V del sistema fotometrico di Ginevra.

RESUMEN

: MEDIDAS FOTOELECTRICAS B y V de las SECUENCIAS DE COMPARACION
de U Cyg y X Oph

Las estrellas de comparación de estas dos variables de tipo MIRA,
eran sido medidas en 2 colores B y V del sistema fotométrico
de Ginebra en el Observatorio de Jungfrauoch.

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1 : INTRODUCTION

These observations, made in July and August 1984, are the follow-up of a work initiated in August 1983 and described in GEOS CIRCULAR SR 5. These measures are part of the preparation of the Hipparcos astrometric satellite's flight. They were made during a mission at Jungfraujoch sponsored by the Palais de la Découverte, Paris.

The instrument was the 76-cm Cassegrainian telescope, fitted with a photometer of the Geneva Observatory. The correlation to standard was ensured by frequent observations of standard stars selected from the Geneva catalogue. The method of reduction is described in GEOS CIRCULAR RR 7.

2 : SEQUENCE FOR U CYGNI

The sequence was observed on the nights 1984 July 26/27 and 1984 July 29/30. The observers were H el ene BOITHIAS, Marie-Pierre GAGNANT, Florence GERBAULT and Michel DUMONT. The comparison stars, labelled 1 to 4 are shown on figure 1 and the results are summarized in Table 1.

Star	Date July 1984	UT	air-mass	Mv	(B-v)G	Chart magnitude
U Cyg	27	02h03m	1,10	7,949	3,477	
U Cyg	29	22h55m	1,00	7,960	3,275	
1	27	02h09m	1,11	7,922	0,037	7,8
1	29	22h59m	1,00	7,908	0,039	7,8
2	27	02h17m	1,13	8,843	0,280	8,8
2	29	23h56m	1,01	8,808	0,263	8,8
3	27	02h29m	1,15	10,283	-0,487	9,8
3	29	23h20m	1,00	10,234	-0,485	9,8
4	29	23h35m	1,00	10,860	-0,474	10,5

TABLE 1

3 : SEQUENCE FOR X OPH

This sequence was observed during the nights 1984 August 1/2 and 2/3 by the same observers. Figure 2 shows the position of the comparison stars and table 2 summarizes the results.

Star	UT 1984 AUG 02	air mass	Mv	(B-v)G	Chart magnitude
X Oph	0h59m	1,96	8,520	0,697	
X Oph	23h19m	1,43	8,495	0,714	
1	1h07m	2,02	7,186	-0,556	7,1
2	1h13m	2,13	8,028	-0,307	8,2
3	1h17m	2,19	8,839	-0,465	8,8
4	1h25m	2,31	9,085	0,364	9,0
5	23h30m	1,47	9,420	-0,243	9,5

TABLE 2

Michel DUMONT

REFERENCES

- DUMONT M. : 1983, GEOS CIRCULAR RR7 :
"Photoelectric Observations of CY Aquarii in August 1982
at the Jungfrauoch Observatory"
- DUMONT M. : 1984, GEOS CIRCULAR SR5 :
"Photoelectric B and V band photometry of comparison stars
for eight mira-type variable star fields"

HIPPARCOS INPUT CATALOGUE

New Ground Based Photometry

IRREGULAR VARIABLES
PHOTOELECTRIC B.V STANDARD SEQUENCE

VARIABLE : U Cyg m_v 7.2 - 10.7

Spectral type :

α 1900 : 20^h 16 30 α 1985 : 20^h 19 07

δ 1900 : +47° 34.7 δ 1985 : 47° 53 46

DM Number :

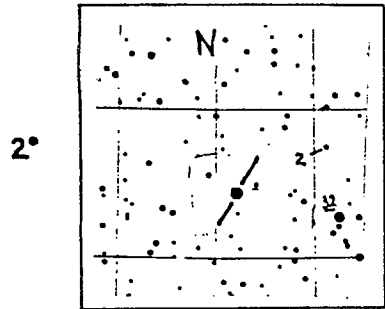


Fig. 1

COMPARISON STARS

N° 1	$m_v =$	7.8
2		8.8
3		9.8
4		10.5
5		11.7.
6		-
7		-
8		-
9		-

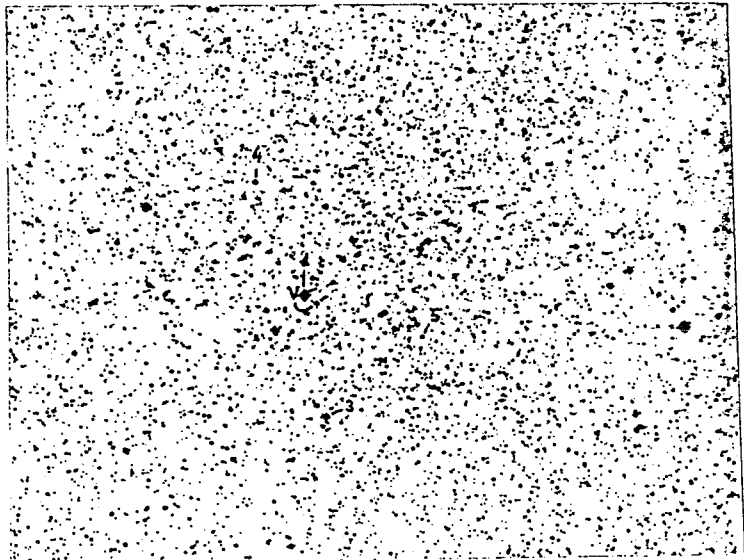


Chart Scale : 1.79 mm/°

IRREGULAR VARIABLES
PHOTOELECTRIC B.V STANDARD SEQUENCE

VARIABLE : X Oph m_v 6.8 - 8.8

Spectral type :

α 1900 : 18^h 33 34 α 1985 : 18^h 37 37

δ 1900 : +08° 44.8 δ 1985 : 8° 49 12

DM Number :

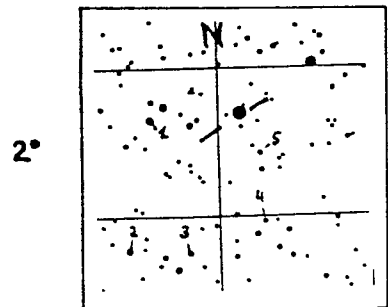


Fig. 2

Date : 28. VII. 83