

# BBSAG Bulletin 22

1975 June 10

## 55<sup>th</sup> List of Minima of Eclipsing Binaries

The following table lists 282 minima obtained visually mainly during 1975 April and May by the observers

- RD Roger Diethelm, Reinach, Switzerland
- GD Guy Dumarchi, Villeneuve-St. Georges, France
- RG Robert Germann, Wald, Switzerland
- JL Jean-François Le Borgne, Brest, France
- KL Kurt Locher, Grüt, Switzerland
- NM Nicolas Mauron, St. Rémy, France
- HP Hermann Peter, Otelfingen, Switzerland
- JR Joseph Remis, St. Avold, France
- RR Raymond Rolland, Rennes, France
- AR Alain Royer, Epinac, France

The O-C values refer to the linear elements of the GCVS 1969, disregarding improved elements in the 1971 and 1974 supplements to the GCVS. Reductions were made using the tracing paper method.

cur- rent no.	star	minimum or- der	JD hel 244...	O-C	ob- ser- ver	cur- rent no.	star	minimum or- der	JD hel 244...	O-C	ob- ser- ver
7984	AB And	I	2553.587	+0.008	5 KL	8012		I	2529.350	-0.025	7 RG
7985		I	2561.569	+0.025	7 KL	8013		I	2534.333	-0.035	7 RG
7986	EP And	II	2561.556	+0.050	5 KL	8014	SV Cam	I	2526.408	-0.012	11 HP
7987	00 Aql	II	2510.670	-0.044	5 KL	8015		I	2529.368	-0.017	6 RG
7988		I	2525.626	-0.037	9 KL	8016		I	2529.374	-0.011	10 KL
7989		I	2526.643	-0.034	13 KL	8017		I	2529.377	-0.009	9 HP
7990		I	2535.508	-0.038	8 HP	8018		I	2529.389	+0.004	13 JL
7991		I	2535.524	-0.022	6 KL	8019		I	2532.330	-0.020	7 RG
7992		I	2549.452	-0.031	7 RG	8020		I	2542.422	-0.011	6 KL
7993		I	2551.467	-0.043	11 RG	8021		I	2545.392	-0.006	10 KL
7994		I	2558.574	-0.032	6 KL	8022		I	2561.406	-0.005	6 KL
7995	WW Aur	I	2510.321	+0.008	19 GD	8023	AY Cam	I	2529.353	-0.017	7 KL
7996		I	2510.321	+0.008	7 KL	8024	RZ Cnc	I	2531.4	-0.1	5 KL
7997		I	2515.378	+0.016	19 GD	8025	WX Cnc	I	2529.478	+0.100	7 RD
7998	AP Aur	I	2528.443	+0.185	6 RD	8026	WY Cnc	I	2504.406	+0.012	6 KL
7999	HL Aur	I	2504.391	-0.009	7 KL	8027		I	2528.448	+0.002	6 RD
8000	TU Boo	I	2540.445	+0.002	7 KL	8028	VZ CVn	I	2528.441	-0.023	5 RD
8001		II	2543.532	+0.008	4 KL	8029	AK CMi	I	2510.314	+0.019	6 KL
8002	TZ Boo	I	2521.396	+0.051	7 RG	8030	RZ Cas	I	2510.649	0.000	7 KL
8003		II	2540.563	+0.052	11 HP	8031		I	2515.433	+0.003	28 GD
8004		I	2545.449	+0.035	8 HP	8032		I	2516.633	+0.009	11 KL
8005		I	2546.349	+0.043	7 RG	8033		I	2521.411	+0.005	11 KL
8006		I	2551.404	+0.047	7 RG	8034		I	2528.583	+0.006	12 KL
8007		I	2552.390	-0.010	8 HP	8035		I	2540.533	+0.004	13 HP
8008	UW Boo	I	2561.428	-0.010	13 HP	8036		I	2540.533	+0.004	9 KL
8009	VW Boo	II	2528.452	-0.042	7 RD	8037		I	2546.508	+0.002	11 HP
8010		II	2529.467	-0.054	6 RD	8038	VW Cep	I	2561.546	-0.095	12 KL
8011	ZZ Boo	I	2524.386	+0.003	9 JR	8039	EE Cep		2544	*	12 HP
						8040			2544	*	26 KL

... following IRVS 965. to be published elsewhere

cur- rent no.	star	minimum or- JD hel der 244...	0 - C	n	ob- ser- ver	cur- rent no.	star	minimum or- JD hel der 244...	0 - C	n	ob- ser- ver
8041	EG Cep	I 2528.483	+0.013	8	RD	8090	YY Del	I 2510.625	+0.020	6	KL
8042		I 2535.564	+0.014	6	KL	8091	Z Dra	I 2526.448	-0.001	11	HP
8043		I 2551.365	+0.021	6	KL	8092		I 2541.380	-0.001	12	HP
8044	RW Com	II 2504.460	-0.040	6	KL	8093		I 2545.453	0.000	8	HP
8045		I 2509.570	-0.034	6	KL	8094	RR Dra	I 2535.440	+0.109	13	HP
8046		II 2510.626	-0.046	5	KL	8095	RZ Dra	I 2529.351	-0.003	8	RG
8047		I 2517.389	-0.047	8	RG	8096		I 2531.552	-0.006	7	RG
8048		I 2521.429	-0.042	6	RG	8097		I 2546.411	-0.019	8	RG
8049		I 2524.522	-0.034	6	KL	8098		I 2551.375	-0.014	11	RG
8050		I 2528.565	-0.027	5	KL	8099	BS Dra**II	2529.491	+0.050	6	RD
8051		I 2532.342	-0.047	7	RG	8100	S Equ	I 2524.592	+0.016	6	KL
8052		II 2534.370	-0.037	7	RG	8101	AL Gem	I 2529.352	-0.014	8	HP
8053		I 2540.426	-0.034	9	HP	8102	GW Gem	I 2525.357	-0.035	9	KL
8054		I 2541.375	-0.033	5	HP	8103	RX Her	II 2551.475	-0.003	9	HP
8055		I 2549.431	-0.047	12	RG	8104	SZ Her	I 2510.603	+0.026	10	KL
8056		I 2550.392	-0.035	10	HP	8105		I 2524.513	+0.029	11	KL
8057		II 2561.411	-0.053	7	RG	8106		I 2528.601	+0.026	6	KL
8058	CC Com	I 2504.470	+0.093	9	KL	8107		I 2529.422	+0.029	11	HP
8059		I 2509.553	+0.100	6	KL	8108		I 2529.422	+0.029	10	KL
8060		I 2510.650	+0.096	5	KL	8109		I 2538.419	+0.028	6	KL
8061		I 2528.528	+0.096	5	KL	8110		I 2546.600	+0.027	8	KL
8062		II 2530.399	+0.092	10	HP	8111		I 2551.512	+0.031	9	HP
8063		I 2534.487	+0.097	8	HP	8112	TT Her	I 2531.464	-0.031	11	HP
8064		I 2540.437	+0.079	9	HP	8113	TX Her	II 2524.419	-0.008	11	JR
8065		II 2543.415	+0.087	9	HP	8114		II 2526.486	-0.030	9	HP
8066		I 2546.398	+0.092	11	HP	8115	UX Her	I 2528.462	-0.039	5	RD
8067		I 2561.409	+0.096	9	HP	8116	CT Her	I 2551.507	+0.035	13	HP
8068	U CrB	I 2532.431	-0.046	7	JR	8117	GL Her	I 2550.592	+0.072	10	KL
8069		I 2532.450	-0.027	10	HP	8118	u Her	I 2506.496	+0.001	16	NM
8070	TW CrB	II 2509.541	*	6	KL	8119	RX Hya	I 2521.350	+0.015	6	KL
8071		II 2516.611	*	10	KL	8120	SX Hya	I 2540.415	+0.205	14	KL
8072		I 2524.555	*	6	KL	8121	WY Hya	I 2521.372	+0.003	6	KL
8073	W Crv	I 2504.429	-0.004	10	KL	8122		II 2530.332	+0.012	9	HP
8074		I 2521.502	-0.006	10	KL	8123		II 2540.356	+0.012	8	HP
8075		I 2530.426	-0.008	10	KL	8124	DE Hya	I 2517.368	-0.010	10	KL
8076		I 2530.427	-0.007	10	HP	8125	SW Lac	II 2553.569	-0.071	6	KL
8077		I 2532.362	-0.013	6	KL	8126		II 2561.574	-0.085	7	KL
8078		I 2535.473	-0.006	8	HP	8127	CM Lac	I 2540.471	-0.004	10	KL
8079		I 2542.465	0.000	4	KL	8128		I 2556.524	+0.003	5	KL
8080	V Crt	I 2504.447	+0.035	10	KL	8129	RW Leo	I 2510.375	+0.030	5	KL
8081		I 2530.422	+0.036	9	HP	8130	UV Leo	I 2507.500	-0.007	14	NM
8082		I 2530.423	+0.036	9	KL	8131		I 2521.306	-0.002	7	RG
8083	SW Cyg	I 2535.500	+0.192	19	HP	8132		II 2523.384	-0.026	9	JL
8084	WW Cyg	I 2534.424	+0.013	11	HP						
8085		I 2534.427	+0.015	10	KL						
8086	V 456 Cyg	II 2529.626	+0.001	18	KL						
8087		I 2551.481	+0.021	11	HP						
8088	V 687 Cyg	I 2550.472	+0.009	9	HP						
8089	V 728 Cyg	I 2546.447	+0.069	11	HP						

\* not contained in the GCVS, 0 - C according to the elements of Цесевич and Каретников, Переменные Звёзды Приложение 1, № 6, p.459: -0.004 -0.001 -0.006

\*\* some 1969 & 1974 elements identical except for doubling of period, minimum

cur- rent no.	star	minimum or- der	JD hel 244...	0 - C	n	ob- ser- ver	cur- rent no.	star	minimum or- der	JD hel 244...	0 - C	n	ser- ver
8133		II	2526.396	-0.014	8	KL	8179	V508 Oph	I	2516.603	+0.010	10	KL
8134		II	2526.406	-0.004	11	HP	8180		I	2524.521	-0.002	5	KL
8135		I	2528.502	-0.008	9	RD	8181		II	2528.495	+0.007	6	KL
8136		II	2529.391	-0.019	13	HP	8182		I	2532.468	+0.015	8	HP
8137		II	2529.395	-0.015	11	JL	8183		II	2540.571	+0.015	11	HP
8138		II	2532.396	-0.014	8	RG	8184		II	2546.424	+0.007	7	RG
8139		II	2532.415	+0.005	12	HP	8185		II	2546.431	+0.014	7	HP
8140		II	2550.410	-0.003	7	HP	8186		I	2551.428	+0.012	12	RG
8141	UZ Leo	II	2524.419	-0.101	9	HP	8187		I	2561.420	+0.004	8	RG
8142		II	2529.361	-0.108	9	HP	8188		I	2561.424	+0.009	9	HP
8143		I	2546.367	-0.113	9	HP	8189	V735 Oph	I	2516.658	-0.199	8	KL
8144	XX Leo	I	2528.499	-0.020	6	RD	8190		I	2561.551	-0.180	10	KL
8145		I	2561.384	-0.073	10	KL	8191	V913 Oph	I	2540.530	-0.094	8	KL
8146	AM Leo	I	2504.366	-0.028	8	JR	8192		I	2540.540	-0.085	19	HP
8147		II	2517.325	-0.054	7	RG	8193	V1010 Oph	I	2546.514	-0.059	6	KL
8148	BL Leo	II	2517.367	+0.003	6	KL	8194		II	2549.510	-0.039	7	RG
8149		II	2530.339	+0.006	10	KL	8195		I	2550.492	-0.050	8	HP
8150	T LMi	I	2510.352	-0.099	8	KL	8196		II	2551.471	-0.063	11	RG
8151	TY Lib	I	2534.474	-0.013	14	KL	8197		II	2561.395	-0.060	8	RG
8152		I	2534.478	-0.009	13	HP	8198	RZ Pyx	I	2521.374	+0.196	10	KL
8153		I	2550.489	-0.006	9	HP	8199	AK Ser	I	2552.573	-0.018	6	KL
8154	WX Lib	I	2540.536	+0.051	7	KL	8200	AO Ser	I	2521.560	+0.001	10	KL
8155	AS Lib	II	2509.623	-0.027	5	KL	8201		I	2528.598	+0.004	10	KL
8156	b Lib	I	2546.408	-0.013	11	RG	8202		I	2530.354	+0.001	6	KL
8157		I	2546.441	+0.020	16	HP	8203		I	2550.570	-0.008	6	KL
8158	SW Lyn	I	2529.454	+0.006	5	RD	8204		I	2551.457	0.000	7	KL
8159	SX Lyn	I	2561.424	-0.287	11	KL	8205		I	2551.467	+0.012	10	HP
8160	TZ Lyr	I	2528.438	+0.027	6	RD	8206	AU Ser	II	2509.578	*	5	KL
8161		I	2529.486	+0.017	7	RD	8207		I	2525.602	*	10	KL
8162	UZ Lyr	I	2549.473	-0.013	16	RG	8208		II	2528.506	*	10	KL
8163	EW Lyr	I	2551.482	+0.055	9	HP	8209		I	2538.354	*	4	KL
8164	PY Lyr	I	2549.497	-0.069	8	KL	8210		II	2550.533	*	6	KL
8165		I	2551.429	-0.065	7	KL	8211		I	2561.550	*	4	KL
8166		I	2552.569	-0.083	5	KL	8212	W UMa	I	2449.384	-0.096	20	RR
8167		I	2561.468	-0.057	8	KL	8213		I	2452.386	-0.096	15	RR
8168	U Oph	II	2528.536	+0.005	12	KL	8214		I	2456.383	-0.103	11	RR
8169		I	2549.507	+0.010	8	RG	8215		I	2460.390	-0.100	12	RR
8170	RV Oph	I	2521.485	0.000	11	KL	8216		I	2477.395	-0.111	18	RR
8171		I	2521.490	+0.004	13	RG	8217		I	2479.399	-0.108	14	RR
8172		I	2532.540	-0.007	10	KL	8218		I	2489.416	-0.101	7	RR
8173	V449 Oph	I	2509.601	+0.051	7	KL	8219		I	2500.429	-0.099	13	NM
8174		I	2534.465	+0.053	10	KL	8220		I	2501.433	-0.096	9	RR
8175		I	2534.473	+0.062	8	HP	8221		I	2502.434	-0.095	8	RR
8176	V501 Oph	I	2535.509	-0.003	10	KL	8222		I	2503.424	-0.106	13	NM
8177	V502 Oph	I	2551.415	-0.063	9	JR	8223		I	2550.494	-0.081	6	AR
8178		II	2553.453	-0.020	11	JR	8224	UX UMa	I	2509.495	-0.002	5	KL
							8225		I	2517.362	-0.001	7	KL
							8226		I	2521.494	0.000	6	KL
							8227		I	2530.346	+0.003	5	KL
							8228		I	2540.375	+0.002	4	KL
							8229		I	2549.421	0.000	4	KL
							8230		I	2551.584	0.000	6	KL

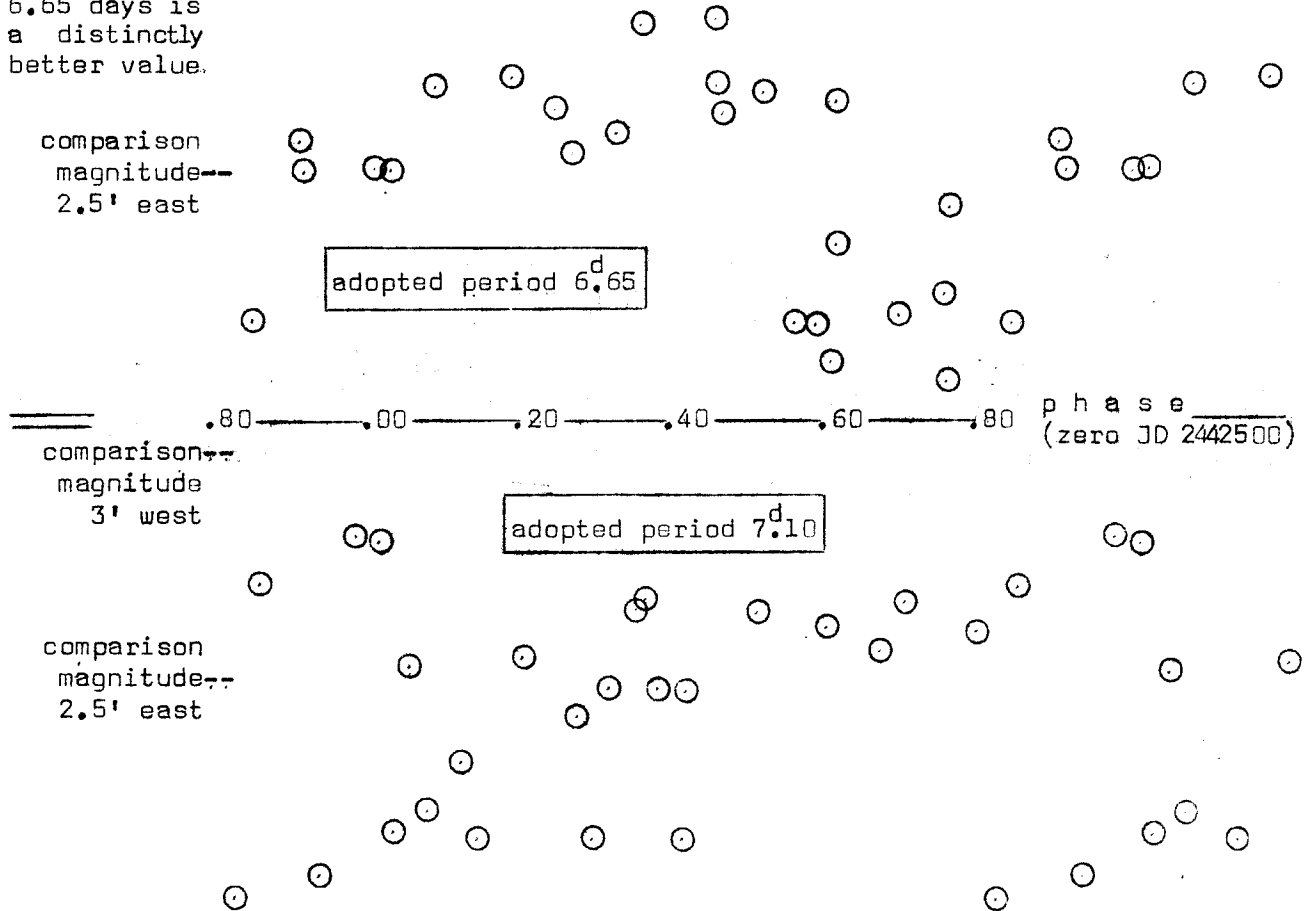
\* the same case as mentioned under 'Erratum' on page 5 of this issue, 0 - C<sub>1974</sub>:  
+0.013 -0.003 +0.001 -0.006: -0.002 0.000

current no.	star	minimum or-der	JD hel 244...	O - C	n	ob-server	current no.	star	minimum or-der	JD hel 244...	O - C	n	ob-server
8231		I	2552.568	+0.001	5	KL	8247	AZ Vir		2521.415			
8232		I	2561.420	+0.003	5	KL	8248			2521.583	*	16	KL
8233	VV UMa	I	2521.422	+0.072	8	RG	8249			2521.406	*	16	RG
8234		I	2530.348	+0.062	9	HP	8250			2530.498	*	10	HP
8235		I	2532.418	+0.070	11	HP	8251			2531.369			
8236		I	2543.409	+0.064	9	HP	8252			2531.548	*	25	RG
8237	XZ UMa	I	2561.384	-0.064	7	HP	8253			2532.424	*	14	HP
8238	AC UMa	I	2521.570	+0.230	19	KL	8254			2532.425	*	13	RG
8239	UW Vir	I	2545.489	+0.226	10	KL	8255			2534.311	*	9	RG
8240	VV Vir	I	2545.480	-0.033	5	KL	8256			2546.412	*	11	RG
8241	AH Vir	II	2532.377	+0.028	10	HP	8257			2551.489	*	10	RG
8242		II	2534.411	+0.025	8	HP	8258			2561.432	*	8	RG
8243		I	2542.368	+0.035	9	HP	8259	BD Vir	I	2538.411	+0.066	12	KL
8244	AK Vir	I	2509.574	+0.046	6	KL	8260	BF Vir	I	2551.386	-0.011	6	KL
8245		I	2521.509	+0.046	7	KL	8261	BH Vir	I	2531.362	-0.001	5	KL
8246		I	2545.371	+0.036	10	KL	8262		I	2531.365	+0.001	11	RG
							8263		I	2540.349	0.000	8	HP
							8264	BU Vul	I	2550.513	+0.003	8	KL
							8265	CD Vul	I	2551.580	-0.016	6	KL

\* strictly unprejudiced observations (and therefore not reduced) because of the controversy about its period (see Busch, Mitteilungen Hartha 7 (1974) p.6)

Improved Period of SZ Librae

Reference 1065 of the GCVS gives only poor information ('found on a number of the Harvard plates') about SZ Lib, suggesting EB type and a period of 7.1 days. My visual observations in 24 nights 1975 February to June plotted below show that 6.65 days is a distinctly better value.



The Totality Duration of SX Hya

The GCVS 1969/1971/1974 gives no  $d$  value for this EA binary already known for many decades. My observation of the minimum of JD 2442540 yields

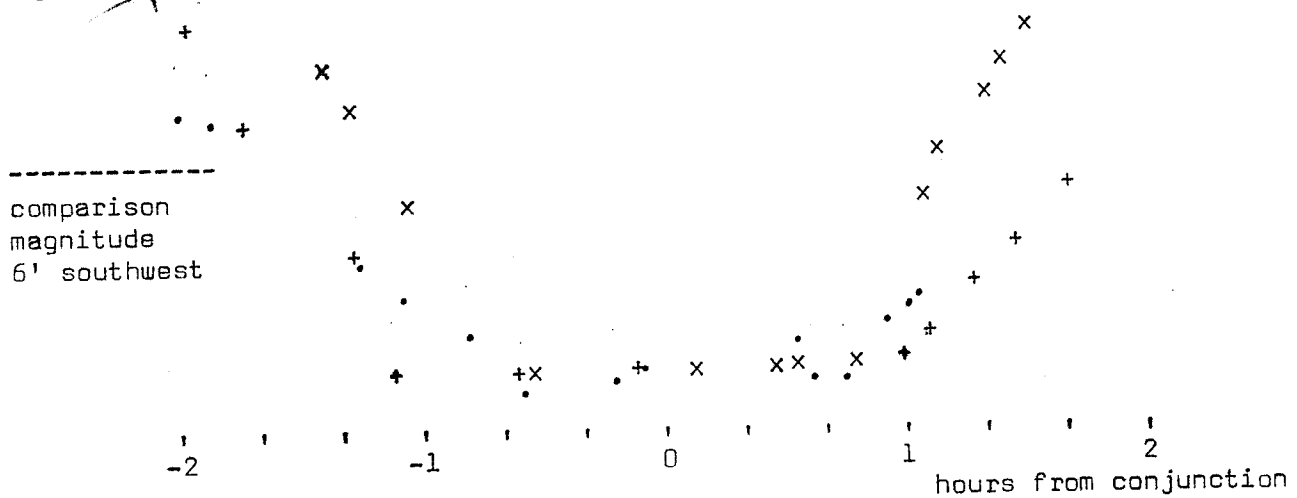
$$d = (90 \pm 5) \text{ minutes} \quad \text{or} \quad (.022 \pm .001) \text{ period} \quad \text{K. Locher}$$

The Totality Duration of TY Lib

The GCVS 1969/1971/1974 giving no  $d$  value, we superplot in figure 24 our 3 visual surveys to show that

$$d = (90 \pm 10) \text{ minutes} \quad \text{or} \quad (.019 \pm .002) \text{ period} \quad \text{H. Peter \& K. Locher}$$

figure 24



- x Peter 1974 May 17
- + Peter 1975 May 1
- . Locher 1975 May 1

Note on a recent Minimum of UV Lyn

Through a private communication Dr. H. Bossen of the Hamburg Observatory has brought to our attention his photoelectric work on UV Lyn published in Astron. & Astroph. Suppl. 10 (1973), p. 217. His new elements

$$\text{Min JD}_{\text{hel}} = 2440271.5032 + .41497872 E$$

$\pm 84 \qquad \qquad \qquad \pm 24$

which have not been included in the 1974 supplement of the GCVS yield for the minimum no. 7815 of BBSAG Bull 21 an O-C value of +0.043. Although the amplitude of UV Lyn is rather small (about half a magnitude), the star is still suitable for visual observation, since comparison stars are readily available and the brightness makes it accessible to many small telescopes. R. Diethelm

Erratum

BBSAG Bull 21, p. 4

A U S e r

should have been given the remark that the O-C exceptionally refer to the GCVS

