
COMMISSIONS 27 AND 42 OF THE IAU
INFORMATION BULLETIN ON VARIABLE STARS

Number **4659**

Konkoly Observatory
Budapest

15 January 1999

HU ISSN 0374 - 0676 (print)

HU ISSN 1587 - 2440 (on-line)

The 74th Special Name-list of Variable Stars

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Abstract: We present the Name-list introducing GCVS names for 3153 variable stars discovered by the Hipparcos mission.

This Name-list is a rather unusual one. In November, 1996, the General Catalogue of Variable Stars (GCVS) team was contacted by Dr. M. Grenon representing the compilers of the Hipparcos catalogue and suggested to give GCVS names to 5665 variable stars discovered by the Hipparcos mission, so that these stars will appear in the Hipparcos catalogue already along with their final GCVS designations. Within one month, we selected Hipparcos variables satisfying GCVS criteria and designated 3157 objects as GCVS stars (ESA, 1997). However, the preparation of the 74th Name-list, which is the largest Name-list in the history of the GCVS, took considerable time:

-- We checked identifications of Hipparcos variables with the NSV catalog, revealed a number of missing identifications, and complemented Hipparcos results with information from our files for NSV stars. We also identified Hipparcos variables with our supplementary lists of suspected variables (the basis of the Supplement to the NSV Catalogue, Kazarovets et al., 1998).

-- We thoroughly reconsidered classification of Hipparcos variable stars according to the GCVS criteria (Kholopov, 1985; Kholopov et al., 1987, 1989; Kazarovets and Samus, 1995). In many cases, we disagreed in classification with the Hipparcos team. In particular, we felt cautious about short (several days) periods found by Hipparcos team for many variable red giants and preferred to classify them as probable red irregulars or semiregulars. On another hand, the Hipparcos results clearly show that the existing GCVS classification system is insufficient. For example, we found difficulties in classifying variable red subgiants, a type of variable stars not clearly recognized before the Hipparcos mission. However, no new types of variable stars are introduced in the present Name-list; the revision of the classification system is a task for future research.

-- We retrieved SIMBAD identifications for Hipparcos variables, checked many of them (more than 500 mistakes in the SIMBAD data base were revealed in this process; a list of suggested corrections will be published elsewhere), added identifications with the Hubble Space Telescope Guide Star Catalog (GSC). The list of Hipparcos variables was identified with existing catalogues of spectroscopic variables; as a result, several stars were reclassified from pulsating stars to ellipsoidal variables. The extreme case of V1472 Aql, reclassified from a red semiregular variable to a possible eclipser, was described by Samus (1997). Special effort was spent for components of double stars, where much confusion in identifications occurs. For stars in open clusters, we tried to retain numbers in the system of J.-P. Mermillod's data base (BDA) from several numbers suggested by SIMBAD in some cases. This part of our work was the most time-consuming.

The printed version of the 74th Name-list consists of a single (main) table and a list of remarks. The electronic supplement to the Name-list (available via ftp from Sternberg Astronomical Institute) also presents the table of identifications.

The main table of the Name-list presents new variable stars arranged in the order of their HIP (Hipparcos catalogue) numbers, which are in the order of right ascensions for the equinox 2000.0. However, the GCVS names within each constellation are introduced in the order of right ascensions for the equinox B1950.0; we retain this equinox until a new GCVS version, with accurate 2000.0 coordinates, is ready. In the printed version, the table contains: Hipparcos catalogue numbers; new GCVS names; variability types adopted by us. An asterisk after the name of a star means that a remark for the star follows the table. In the electronic

version, this table contains also truncated coordinates (equinox 1950.0; in vast majority of cases, the epoch is also 1950.0 -- this may be not so only for stars lacking astrometric solution in the Hipparcos catalogue and having no published proper motions in other sources known to us); limits of variability (in the Hipparcos magnitude system, rounded to 0.01; for some stars, the range of variability adopted by us is wider than that given in the Hipparcos catalogue, in accordance with light curves; for several stars, a still wider range follows from observations published elsewhere, such magnitudes are followed by the letter V for V magnitudes or P for photographic magnitudes). A significant deviation from the format of the previous Name-lists is the absence of two columns with references to the literature; the main source of data is the Hipparcos catalog (ESA, 1997), which also contains finding charts.

The table of identifications (in the electronic version only) presents, along with Hipparcos numbers and GCVS names, designations from a number of important astronomical catalogues (Bayer designations and Flamsteed numbers; Bright Star Catalogue numbers, BS = HR; Bonner, Cordoba, and Cape Durchmusterung numbers; SAO, PPM, GSC numbers; IRC, CRL, and IRAS designations of infrared surveys; designations from catalogues of double stars, nearby stars, large-proper-motion stars, carbon stars, zirconium stars; preliminary designations of suspected variable stars, their NSV Catalogue and CSV numbers, etc.). In the readme file, a more detailed description of this table, along with the list of catalogues, is presented. We would like to warn the users that, despite our considerable effort to check identifications, this table is substantially based, in its contents and completeness, upon data from SIMBAD.

Of the 2417 stars from the Hipparcos list of new variable stars not included into the present Name-list, 91 are already contained in the GCVS; the rest of objects do not meet some of the GCVS naming criteria, they appear in the Supplement to the NSV Catalogue (Kazarovets et al., 1998) or are already present in the NSV catalogue (Kholopov, 1982).

The electronic version of the 74th Name-list of variable stars can be found at <ftp://ftp.sai.msu.su/pub/groups/cluster/gcvs/gcvs/nl74>. The

readme file contains, in particular, a detailed byte-by-byte description of the tables.

We gratefully acknowledge the use of the SIMBAD data base and of the BDA data base for open clusters during preparation of this Name-list. This study was partially supported by the ESA, by the Russian Foundation of Basic Research (grant 97-02-16739), by the Russian Federal Scientific Programme "Astronomy", and by the Russian Council for Support of Leading Scientific Schools (grant 96-15-96656).

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 - Samus, N.N., 1997, IBVS, No. 4501 (IBVS N°.4501)
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Table 1: GCVS Names for Hipparcos Variables

REPRODUCCIÓN PARCIAL

HIP	GCVS	Type	HIP	GCVS	Type	HIP	GCVS	Type
80707	MS TrA	ACV:	82123	V916 Her	E:	83713	V933 Her	LB:
80714	V1057 Sco	SRB	82207	V917 Her	LB:	83714	V934 Her	SRB:
80788	V378 Nor	CEP:	82253	V918 Her	EB	83802	V851 Ara	EB
80791	V897 Her	SRD:	82335	V843 Ara	ACV	83814	V935 Her	EB
80830	V379 Nor	LB	82344	V921 Her	EB	83868	V936 Her	LB:
80876	V898 Her	BY:	82346	V919 Her	DSCTC	83891	V2365 Oph	E:
80945	V1058 Sco	ACYG	82387	V922 Her	LB:	83904	V937 Her	LB:
80961	GG Dra	EB	82390	V920 Her	E:	83943	V852 Ara	EA
80965	V380 Nor	SRB	82428	V923 Her	EB	83958	V2366 Oph	LB:
80978	MT TrA	LB:	82442	V2355 Oph	EB	83972	OW Aps	LBV
81165	V2352 Oph	BY:	82451	V1067 Sco	E:	84004	V939 Her	LB
81191	V899 Her	EW	82459	CV Oct	LB	84016	V938 Her	SRB:
81243	V901 Her	SR:	82544	V2356 Oph	LB:	84025	V853 Ara	ACV
81244	GH Dra	LB:	82650	V1068 Sco	LB	84038	V940 Her	SRD
81245	V900 Her	LB:	82720	UX UMi	LB:	84042	OX Aps	LB
81256	V1059 Sco	BE	82745	V844 Ara	LB:	84105	V854 Ara	LB
81284	GI Dra	SRD:	82769	V845 Ara	LB:	84148	V855 Ara	LB
81319	V902 Her	LB:	82776	V924 Her	SRB:	84191	V941 Her	LB:
81334	V1060 Sco	DSCTC	82819	V1069 Sco	EA:	84231	V856 Ara	LB:
81376	V840 Ara	LB	82825	V925 Her	LB:	84277	V2367 Oph	BY:
81411	V903 Her	SRB	82848	V1070 Sco	LBV	84385	V942 Her	LB
81415	V1061 Sco	LB	82868	V846 Ara	BE	84401	V1075 Sco	BE:
81420	V905 Her	LB:	82883	V927 Her	DSCT	84479	V2368 Oph	EA
81426	V904 Her	LB:	82920	V926 Her	LB:	84483	V1076 Sco	BE
81438	OS Aps	LB	82967	V2357 Oph	EW:	84504	V943 Her	LB:
81477	V1062 Sco	ACV	82982	OV Aps	ACV:	84535	{lambda} UMi	SRB
81478	V841 Ara	BY:	82985	V847 Ara	LBV:	84595	V2369 Oph	BY:
81483	V906 Her	LB	83014	V1071 Sco	SRB	84596	V944 Her	LB
81530	OT Aps	EA	83021	V2358 Oph	LB	84642	V857 Ara	BY:
81554	MU TrA	ACV	83102	GL Dra	SRB	84650	V1077 Sco	BE
81622	V907 Her	LB:	83105	V848 Ara	BE	84686	V858 Ara	ACV
81645	V1063 Sco	GCAS	83117	V2359 Oph	LB	84726	V945 Her	LB
81694	V908 Her	BY:	83150	MX TrA	ACV	84745	V1078 Sco	BE
81700	V842 Ara	LB:	83208	V928 Her	LB:	84752	V946 Her*	LB:
81712	V1064 Sco	LB:	83209	V2360 Oph	LB:	84775	V947 Her	LB:
81743	OU Aps	ACV:	83250	V849 Ara	LC	84837	GM Dra	EW
81753	MV TrA	SRD	83255	CW Oct	ACV:	84876	V1079 Sco	LB
81842	V1065 Sco	ACV	83322	V2361 Oph	LB:	84896	GN Dra	SRB
81855	V909 Her	LB	83366	CX Oct	SRB	85022	V1080 Sco	IA:
81893	V2353 Oph	ACV	83370	V929 Her	DSCTC	85057	V948 Her	EA
81921	V1066 Sco	LB:	83416	V2362 Oph	LB:	85065	V949 Her	SRB
81938	V910 Her	LB:	83425	V930 Her	BY:	85076	GP Dra	LB
81967	V912 Her	SRD:	83457	V1072 Sco	DSCTC	85087	V2370 Oph	LB:
81968	MW TrA	LB:	83462	V931 Her	LB:	85125	GO Dra	LB
81975	V911 Her	LB:	83574	V1073 Sco	ACYG:	85189	V2371 Oph	BCEP
82029	V913 Her	LB:	83584	V932 Her	LB	85252	V950 Her	LB:
82050	V914 Her	SRD	83618	V850 Ara	LB	85277	GQ Dra	EB
82056	GK Dra	EA	83632	V2363 Oph	SRB	85344	V951 Her	LB:
82089	V2354 Oph	LB:	83638	V2364 Oph	SRB	85435	V859 Ara	LC
82103	V915 Her	LB:	83706	V1074 Sco	ACYG:	85507	V2372 Oph	LB