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THE LIST OF THE NEAREST AND BRIGHT ECLIPSING BINARIES  
FROM THE HIPPARCOS PROGRAM

In the previous paper (Dworak and Oblak, 1984) we gave a review of arrangements of astrometric HIPPARCOS program. The HIPPARCOS satellite will be launched on a geostationary orbit in the beginning of 1988. Technical data were also briefly described in that paper. Our program (No 00177) of observations of the nearest eclipsing binaries (and also bright systems which are included into the standard program), extensively presented in the previous paper, has been accepted by the Organizing Committee of the HIPPARCOS Project.

The planned observations will serve for determination of heliocentric parallaxes of these stars as well as for determination of their geometric and physical parameters and to verification of the modified mass-luminosity relation (Brancewicz and Dworak, 1980).

To obtain homogenous results for such parameters the new or additional observations of eclipsing binaries from the HIPPARCOS program are very needed. Table I contains a revised list of the nearest and also bright eclipsing binaries for which photometric or spectrometric (or both) observations will be necessary in further elaborations. Especially the determination of spectral type and luminosity class for secondary components of eclipsing systems is needed to estimate their effective temperatures. The solution of light curve from photoelectric observations is also needed for the determination of geometric parameters of each eclipsing system.

The consecutive columns of Table I contain: name and type of the star (EA - an Algol-type, EB -  $\beta$ -Lyr-type, EW - W UMA-type, E - an eclipsing binary without determined type), co-ordinates for the epoch 2000.0, observations needed (photometric, spectrometric or both), and the year of the last observation. The data for this list are taken from General Catalogue of Variable

Table I

The nearest and bright eclipsing binaries for which new or additional observations are needed (spec., phot., or both)

Name	Type	$\alpha$ (2000.0)	$\delta$	Obs. needed	Year of last obs.
RT AND	EA	23 <sup>h</sup> 10 <sup>m</sup> 51 <sup>s</sup>	+53°01'5"	spec.	1986
AN AND	EB	23 18 23	+41 46.3	both	1980
BX AND	EA	2 09 01	+40 47.9	both	1983
BW AQR	EA	22 23 17	-15 20.1	both	1985
DV AQR	EB	20 58 42	-14 29.3	spec.	1984
DX AQR	EA	22 02 27	-16 58.1	spec.	1981
EE AQR	EB	22 34 42	-19 51.6	both	1985
QS AQL	EA	19 41 06	+13 48.7	spec.	1980
R ARA	EA	16 39 42	-57 00.2	both	-
V535 ARA	EW	17 38 05	-56 49.8	spec.	1984
RR ARI	EA	1 55 50	+23 34.8	both	-
HS AUR	EA	6 51 19	+47 41.0	phot.	1983
IM AUR	EA	5 15 29	+46 24.9	spec.	1983
TZ BOO	EW	15 08 10	+39 57.9	spec.	1983
VW BOO	EW	14 17 26	+12 33.2	both	1983
441 BOO	EW	15 03 49	+47 39.0	phot.	1985
SV CAM	EA	6 41 27	+82 17.8	phot.	1986
VZ CVN	EA	13 32 04	+28 34.8	spec.	1986
R CMA	EA	7 19 27	-16 23.3	spec.	1986
EX CAR	EA	10 25 00	-63 38.2	both	1924
AR CAS	EA	23 30 00	+58 32.9	spec.	1947
CW CAS	EW	0 45 56	+65 05.3	spec.	1981
RR CEN	EW	14 16 54	-57 51.5	spec.	1984
V716 CEN	EB	14 13 56	-54 37.8	spec.	1984
V752 CEN	EW	11 42 46	-35 49.0	both	1986
XZ CEP	EB	22 32 25	+67 08.9	both	1982
EM CEP	EW	21 53 48	+62 36.8	spec.	1982
AA CET	EW	1 59 01	-22 55.1	both	1986
RZ CHA	EA	10 42 35	-82 02.4	phot.	1980
$\epsilon$ CRA	EW	18 58 44	-37 06.8	spec.	1983
SX CRV	EW	12 40 14	-18 48.0	spec.	-
V346 CYG	EA	20 19 25	+36 20.1	both	1971

Name	Type	$\alpha$ (2000.0)	$\delta$	Obs. needed	Year of last obs.
V1061 CYG	EA	21 <sup>h</sup> 07 <sup>m</sup> 20 <sup>s</sup>	+52 02.8	both	1986
V1362 CYG	E	20 03 41	+36 25.5	both	-
RW DOR	EW	5 18 30	-68 <sup>o</sup> 13.6	both	1982
TW DRA	EA	15 33 50	+63 54.3	phot.	1986
AI DRA	EA	16 56 18	+52 41.7	spec.	1986
BV DRA	EW	15 11 53	+61 50.4	spec.	1984
BW DRA	EW	15 11 53	+61 50.7	spec.	1984
CM DRA	EA	16 34 24	+57 09.0	spec.	1985
YY ERI	EW	4 12 09	-10 27.7	phot.	1985
CO ERI	EA	2 35 39	-45 04.0	both	1963
TZ FOR	EA	3 14 40	-35 33.5	phot.	-
GX GEM	EB	6 46 08	+34 25.0	both	-
RV GRU	EW	22 39 26	-46 52.5	both	-
Z HER	EA	17 58 07	+15 08.2	spec.	1979
V624 HER	EA	17 44 17	+14 24.4	spec.	1984
GK HYA	EA	8 30 50	+ 2 16.5	spec.	1961
SU IND	EW	20 54 41	-45 43.9	both	-
TX LEO	EA	10 35 03	+ 8 39.1	spec.	1967
AM LEO	EW	11 02 11	+ 9 53.8	spec.	1986
AP LEO	EW	11 05 04	+ 5 09.2	spec.	-
ES LIB	EB	15 16 47	-13 02.6	spec.	1980
$\delta$ LIB	EA	15 00 58	- 8 31.2	spec.	1982
TZ LYR	EB	18 15 50	+41 06.6	spec.	1986
FL LYR	EA	19 12 05	+46 19.4	spec.	1983
TY MEN	EW	5 26 50	-81 35.3	spec.	1980
UX MEN	EA	5 30 01	-76 15.0	phot.	1973
V566 OPH	EW	17 56 52	+ 4 59.1	spec.	1986
V839 OPH	EW	18 09 21	+ 9 08.0	both	1985
V1010 OPH	EB	16 49 28	-15 45.4	both	1984
ER ORI	EW	5 11 15	- 8 33.3	spec.	1983
KZ PAV	EA	20 58 48	-70 25.9	both	1980
EE PEG	EA	21 40 02	+ 9 10.9	phot.	1979
LX PER	EA	3 13 18	+48 06.7	phot.	1983
AE PHE	EW	1 32 33	-49 31.5	both	1970
$\delta$ PIC	EB	6 10 18	-54 58.0	spec.	1973
UV PSC	EB	1 16 54	+ 6 48.8	both	1985
XZ PUP	EB	8 13 31	-23 57.0	spec.	-

Name	Type	$\alpha$ (2000.0)	$\delta$	Obs. needed	Year of last obs.
TY PYX	E	8 <sup>h</sup> 59 <sup>m</sup> 44 <sup>s</sup>	-27 <sup>o</sup> 48'7	spec.	1978
RS SGR	EA	18 17 36	-34 06.9	phot.	1980
V505 SGR	EA	19 53 07	-14 36.5		1985
V525 SGR	EB	19 07 14	-30 10.1	spec.	1973
V1647 SGR	EB	17 59 14	-36 56.8	spec.	1982
V2509 SGR	EB	18 15 51	-35 39.3	spec.	1967
$\mu$ SGR	EA	18 13 46	-21 4.0	spec.	1938
V393 SCO	EA	17 48 48	-35 03.9	spec.	-
V760 SCO	EA	16 24 49	-34 54.3	spec.	1965
TY TAU	EA	4 34 42	+15 16.3	spec.	1985
EN TAU	EA	5 56 42	+25 14.9	spec.	1975
HU TAU	EA	4 38 16	+20 41.5	spec.	1984
HO TEL	EA	19 52 00	-46 52.1	spec.	1980
XY UMA	EB	9 09 59	+54 30.1	both	1985
XZ UMA	EA	9 31 27	+49 28.4	both	1985
W VOL	EW	7 37 43	-69 32.8	spec.	-

Stars (Kukarkin et al., 1985), from a catalogue of parameters of eclipsing binaries (Brancewicz and Dworak, 1980) and also from the Cracow Card Index of Minima for Eclipsing Binaries.

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