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TIMES OF MINIMA OF ECLIPSING BINARIES

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Observatory and telescope:	
URSA Observatory at the University of Arkansas (ursa.uark.edu); 10-inch Schmidt-Cassegrain reflector.	

Detector:	1020×1530 pixels SBIG ST8EN CCD cooled to (typ.) –20° C; 1.15 square pixels; 20'(N-S)×30'(E-W) field of view.
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Method of data reduction:	
Virtual measuring engine (Measure 1.96) written by C.H.S. Lacy (2002)	

Method of minimum determination:	
Kwee & van Woerden (1956)	

Observed star(s):							
Star name	GCVS type	Coordinates (J2000)		Comp. star	Ephemeris		Source
		RA	Dec		E 2400000+	P [day]	
CO And	EA/SD:	01 ^h 11 ^m 25 ^s	+46° 57' 49"	03268 00400	52245.65158	3.655326	1
HP Aur	EA/DM	05 ^h 10 ^m 22 ^s	+35° 47' 47"	02401 00760	52263.62901	1.4228192	1
CV Boo	EA/DM	15 ^h 26 ^m 20 ^s	+36° 58' 53"	02570 00511	52321.84559	0.8469935	1
SW Cnc	EA/SD:	09 ^h 09 ^m 00 ^s	+09° 35' 42"	00812 00083	52339.81190	1.799211	1
MU Cas	EA/DM	00 ^h 15 ^m 52 ^s	+60° 25' 54"	01331 04014	51876.5835	9.652926	2
V396 Cas	EA/DM	23 ^h 13 ^m 36 ^s	+56° 44' 06"	01337 04006	52180.7074	5.50545	2
V459 Cas	EA/DM	01 ^h 11 ^m 30 ^s	+61° 08' 48"	00792 04030	51144.6845	8.458294	2
V651 Cas	EA/DM	23 ^h 48 ^m 34 ^s	+57° 44' 57"	04009 00049	52261.65238	0.9968096	1
VZ Cep	EA/DM	21 ^h 50 ^m 11 ^s	+71° 26' 38"	01497 04470	52054.8522	1.1833648	2
DV Cep	E	20 ^h 43 ^m 19 ^s	+72° 22' 30"	04455 00968	46763.3552	1.1619732	3
V1061 Cyg	EA/DM	21 ^h 07 ^m 21 ^s	+52° 02' 58"	00278 03600	51159.3789	2.346643	1
GX Gem	EA/DM	06 ^h 46 ^m 09 ^s	+34° 24' 53"	02444 00702	52334.75	4.0385	1
LV Her	EA/DM	17 ^h 35 ^m 32 ^s	+23° 10' 31"	00580 02076	52066.6996	18.4359391	4
RW Lac	EA/DM	22 ^h 44 ^m 57 ^s	+49° 39' 28"	03629 02473	52253.6669	10.36922	1
FO Ori	EA/DS:	05 ^h 28 ^m 10 ^s	+03° 37' 23"	00105 02195	52275.6149	18.80058	1
V530 Ori	EA/DM	06 ^h 04 ^m 34 ^s	–03° 11' 42"	04786 01469	52305.3115	6.1107799	1
V482 Per	EA/DM	04 ^h 15 ^m 41 ^s	+47° 25' 20"	03332 00388	52266.8056	2.4467549	1
V514 Per	EB/DM	03 ^h 19 ^m 39 ^s	+50° 07' 12"	03319 01713	52261.5563	1.8191	1
RXJ0212.3	E	02 ^h 12 ^m 19 ^s	–13° 30' 41"	05283 01513	50185.5067	6.709914	5
EN Tau	EA/SD:	05 ^h 56 ^m 43 ^s	+25° 14' 18"	01867 00549	52296.8535	2.4762	1
V1094 Tau	EA/DM	04 ^h 12 ^m 04 ^s	+21° 56' 51"	01263 00925	49701.7059	8.988487	6
AT Vul	EA/SD:	19 ^h 53 ^m 59 ^s	+23° 33' 52"	02140 02219	50716.3794	3.98039	7
BP Vul	EA/DM	20 ^h 25 ^m 33 ^s	+21° 02' 18"	01837 01644	51063.6717	1.9403491	8

Source(s) of the ephemeris:

1: This paper, 2: Lacy et al. (2002), 3: Ratz (2001), 4: Torres (2001), 5: Torres (2002), 6: Kaiser & Frey (1998), 7: Agerer & Huebscher (1998), 8: Denger (2002)

Times of minima:						
Star name	Time of min. HJD 2400000+	Error	Type	Filter	$O - C$ [day]	Rem.
CO And	52245.65158	0.00016	1	V	0.00000	
	52267.58334	0.00011	1	V	-0.00020	
HP Aur	52252.9581	0.0003	2	V	+0.0002	Sec. phase=0.5
	52263.62901	0.00007	1	V	0.00000	
	52267.89787	0.00013	1	V	+0.00040	
	52270.74330	0.00014	1	V	+0.00019	
	52287.8168	0.0003	1	V	-0.0001	
	52302.7587	0.0004	2	V	+0.0022	
	52317.6964	0.0002	1	V	+0.0003	
	52332.6364	0.0002	2	V	+0.0007	
	52563.84481	0.00016	1	V	+0.00095	
	52607.95200	0.00018	1	V	+0.00074	
	52615.7779	0.0006	2	V	+0.0011	
CV Boo	52296.01170	0.00016	2	V	-0.00059	Sec. phase=0.5
	52301.94066	0.00010	2	V	-0.00058	
	52321.84559	0.00006	1	V	0.00000	
	52323.96230	0.00015	2	V	-0.00077	
	52329.8912	0.0003	2	V	-0.0008	
	52332.85643	0.00007	1	V	-0.00008	
	52343.86691	0.00006	1	V	-0.00051	
	52346.83147	0.00008	2	V	-0.00043	
	52354.87817	0.00007	1	V	-0.00017	
	52355.72529	0.00013	1	V	-0.00004	
	52380.71035	0.00020	2	V	-0.00129	
	52427.7190	0.0003	1	V	-0.0008	
	52433.64812	0.00012	1	V	-0.00061	
	52449.74157	0.00012	1	V	-0.00004	
52471.7622	0.0002	1	V	-0.0012		
SW Cnc	52258.8473	0.0004	1	V	-0.0001	
	52266.9462	0.0012	2	V	+0.0023	Sec. phase=0.5
	52339.81190	0.00024	1	V	0.00000	
	52589.9020	0.0004	1	V	-0.0002	
MU Cas	52598.8979	0.0002	1	V	-0.0004	
	52262.6990	0.0004	1	V	-0.0015	
	52519.6565	0.0020	2	V	+0.0017	Sec. E=52181.8024
V396 Cas	52600.5550	0.0006	1	V	+0.0021	
	52282.5586	0.0003	2	V	+0.0004	Sec. phase=0.5
V459 Cas	52615.63889	0.00011	1	V	+0.00094	
	52252.71631	0.00016	1	V	-0.00470	
V651 Cas	52269.6326	0.0006	1	V	-0.00050	
	52286.5500	0.0002	1	V	-0.0042	
	52586.75193	0.00013	2	V	+0.00445	Sec. E=51148.8375
	52244.70689	0.00009	1	V	+0.00027	
	52261.65238	0.00007	1	V	0.00000	
	52299.53059	0.00008	1	V	-0.00055	
VZ Cep	52518.82918	0.00018	1	V	-0.00008	
	52610.53533	0.00008	1	V	-0.00041	
	52463.7053	0.0003	2	V	+0.0006	Sec. phase=0.5
	52464.8881	0.0003	2	V	-0.0000	
DV Cep	52482.6387	0.0005	2	V	+0.0001	
	52518.73064	0.00019	1	V	-0.00056	
	52440.75806	0.00010	1	V	+0.00180	

Times of minima:						
Star name	Time of min. HJD 2400000+	Error	Type	Filter	$O - C$ [day]	Rem.
V1061 Cyg	52448.8603	0.0003	2	V	+0.0011	Sec. phase=0.5
	52482.8861	0.0003	1	V	+0.0005	
	52589.6558	0.0005	2	V	-0.0020	
	52602.56431	0.00011	1	V	0.00000	
GX Gem	52609.60438	0.00012	1	V	+0.00011	Sec. phase=0.5
	52562.8908	0.0003	2	V	-0.0345	
LV Her	52432.8790	0.0003	2	V	-0.0067	Sec. E=52064.1669
	52490.72613	0.00020	1	V	-0.00007	
RW Lac	52253.6669	0.0003	1	V	0.0000	Sec. E=51076.6925
	52486.9009	0.0004	2	V	-0.0055	
	52590.5925	0.0004	2	V	-0.0061	
	52616.58812	0.00018	1	V	-0.00148	
FO Ori	52275.6149	0.0003	1	V	0.0000	
V530 Ori	52323.6440	0.0002	1	V	+0.0002	
V482 Per	52250.9000	0.0004	2	V	0.0000	Sec. phase=0.5
	52266.8056	0.0003	1	V	0.0000	
	52276.5957	0.0003	1	V	+0.0031	
	52287.6027	0.0004	2	V	+0.0014	
	52288.8255	0.0006	1	V	-0.0009	
	52589.7781	0.0005	1	V	+0.0009	
V514 Per	52261.5563	0.0004	1	V	0.0000	Sec. phase=0.5
	52591.7351	0.0009	2	V	+0.0122	
RXJ0212.3	52597.7469	0.0009	2	V	+0.0261	Sec. phase=0.5
EN Tau	52295.6225	0.0007	2	V	+0.0071	Sec. phase=0.5
V1094 Tau	52601.87764	0.00014	2	V	0.00000	Sec. E=52601.87764
AT Vul	52449.836	0.002	2	V	-0.003	Sec. phase=0.5
BP Vul	52425.79570	0.00017	1	V	-0.00107	
	52487.88765	0.00015	1	V	-0.00029	
	52488.81917	0.00020	2	V	+0.00066	
	52495.64880	0.00011	1	V	-0.00054	
	52562.5517	0.0003	2	V	-0.0001	
	52595.5379	0.0005	2	V	+0.0002	

Remarks:

A sample of the observations has been published by Lacy, Hood & Straughn (2001). In that same publication, the ephemeris of WW Cep is wrongly attributed to "This paper". The correct attribution is Agerer (1994).

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