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120 MINIMA TIMINGS OF ECLIPSING BINARIES

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Observatory and telescope:	
T1: 0.4m, f/8 Cassegrain telescope, located at the University of Athens Observatory, at Zografos, Athens, Greece.	
T2: 1.2m, f/13 Cassegrain telescope of the National Observatory of Athens, located at the Kryoneri Astronomical Station, at Korinth, Greece.	
Detector:	C1: ST-10XME CCD camera, KAF-3200ME chip, 16'×11' and 25'×17' (using an f/6.3 focal reducer) field of view (FoV) with T1. C2: ST-8XMEI CCD camera, KAF-1603ME chip, 15'×10' FoV with T1. C3: ST-8 CCD camera, KAF-1600 chip, 15'×10' FoV with T1. C4: Photometrics CH250 CCD camera, SI502 chip, 2.5'×2.5' FoV with T2. C5: AP47p CCD camera, Marconi 47-10 chip, 2.5'×2.5' and 5'×5' (using an f/6.3 focal reducer) FoV with T2. All CCDs have a Peltier-type cooling system and are equipped with a set of <i>UBVRI</i> filters (Bessell specifications).
Method of data reduction:	
Differential photometry	
Method of minimum determination:	
Kwee & van Woerden (1956).	

Table 1: Times of minima of eclipsing binaries

System	HJD	Error	Type	Filters	Remark
SV Cam	2456585.4889	0.0003	II	BVRI	T1+C1
	2456586.3782	0.0002	I	BVRI	T1+C1
	2456587.2697	0.0003	II	BVRI	T1+C1
	2456587.5638	0.0001	I	BVRI	T1+C1
	2456588.4759	0.0005	II	BVRI	T1+C1
	2456589.3434	0.0003	I	BVRI	T1+C1
	2456590.2368	0.0004	II	BVRI	T1+C1
	2456590.5290	0.0001	I	BVRI	T1+C1
	2456591.4231	0.0003	II	BVRI	T1+C1
	2456592.3081	0.0002	I	BVRI	T1+C1
	2456593.2038	0.0005	II	BVRI	T1+C1
	2456593.4941	0.0001	I	BVRI	T1+C1
V563 Lyr	2456200.3607	0.0004	II	BVRI	T1+C1
	2456202.3827	0.0008	I	BVRI	T1+C1
	2456205.2711	0.0005	I	BVRI	T1+C1
GSC 3122-2426 (Lyr)	2456207.2924	0.0004	II	BVRI	T1+C1
	2456199.3444	0.0005	I	BVRI	T1+C1
	2456200.2460	0.0006	I	BVRI	T1+C1
	2456200.3960	0.0012	II	BVRI	T1+C1
	2456202.3499	0.0004	I	VRI	T1+C1
	2456203.4024	0.0014	II	VRI	T1+C1
	2456204.3010	0.0014	II	BVRI	T1+C1
	2456205.3557	0.0006	I	VRI	T1+C1
V566 Oph	2456207.3082	0.0008	II	BVRI	T1+C1
	2454980.5158	0.0001	II	BVRI	T1+C2
DV Psc	2454982.3590	0.0005	I	BVRI	T1+C2
	2453617.4871	0.0004	I	BVRI	T2+C4
DV Psc	2453618.4138	0.0008	II	BVRI	T2+C4
	2453618.5656	0.0001	I	BVRI	T2+C4
	2453696.3168	0.0003	I	BVRI	T1+C3
	2453708.1962	0.0005	II	BVRI	T1+C3
	2453708.3497	0.0003	I	BVRI	T1+C3
	2453709.2756	0.0004	I	BVRI	T1+C3
	2453710.2007	0.0006	I	BVRI	T1+C3
	2453710.3550	0.0022	II	BVRI	T1+C3
	2453712.3612	0.0004	I	BVRI	T1+C3
	2453721.3084	0.0005	I	BVRI	T1+C3
	2453724.2402	0.0007	II	BVRI	T1+C3
	2453736.2712	0.0009	II	BVRI	T1+C3
	2456209.3453	0.0004	I	BVRI	T2+C4
	2456209.5029	0.0006	II	BVRI	T2+C4
	2456212.4315	0.0004	I	BVRI	T1+C1
	2456243.2854	0.0002	I	BVRI	T1+C1
	2456243.4424	0.0006	II	BVRI	T1+C1
	2456245.2932	0.0003	II	BVRI	T1+C1
2456245.4451	0.0001	I	BVRI	T1+C1	

Table 1: cont.

System	HJD	Error	Type	Filters	Remark
DV Psc	2456246.2201	0.0009	II	BVRI	T1+C1
	2456246.3706	0.0001	I	BVRI	T1+C1
	2456559.3820	0.0004	II	BRI	T2+C5
	2456559.5312	0.0002	I	BVRI	T2+C5
	2456560.3082	0.0003	II	VRI	T2+C5
	2456560.4569	0.0002	I	BVRI	T2+C5
	2456560.6163	0.0005	II	BVRI	T2+C5
	2456561.3830	0.0001	I	BVRI	T2+C5
	2456561.5427	0.0003	II	BVRI	T2+C5
	2457674.4238	0.0003	II	I	T1+C1
	2457675.5046	0.0001	I	I	T1+C1
	2457677.3561	0.0004	I	I	T1+C1
	2457679.3604	0.0002	II	I	T1+C1
	2457680.2863	0.0002	II	I	T1+C1
	2457680.4408	0.0001	I	I	T1+C1
	2457681.2145	0.0003	II	I	T1+C1
	2457681.3673	0.0001	I	I	T1+C1
	2457681.5197	0.0001	II	I	T1+C1
	2457685.2213	0.0002	II	I	T1+C1
	2457685.3776	0.0002	I	I	T1+C1
	2457686.3036	0.0001	I	I	T1+C1
	2457687.2296	0.0001	I	R	T1+C1
	2457687.3816	0.0002	II	R	T1+C1
	2457693.4004	0.0002	I	R	T1+C1
	2457694.3258	0.0001	I	R	T1+C1
	2457694.4789	0.0001	II	R	T1+C1
	2457695.4042	0.0002	II	R	T1+C1
	2457696.3298	0.0002	II	R	T1+C1
	2457696.4858	0.0002	I	R	T1+C1
	2457697.2551	0.0002	II	V	T1+C1
	2457698.1814	0.0007	II	V	T1+C1
	2457698.3369	0.0001	I	V	T1+C1
	2457698.4885	0.0004	II	V	T1+C1
	2457699.4149	0.0002	II	V	T1+C1
	2457702.3482	0.0001	I	V	T1+C1
	2457703.4255	0.0003	II	V	T1+C1
	2457706.1986	0.0006	II	B	T1+C1
	2457706.3595	0.0002	I	B	T1+C1
	2457709.2856	0.0005	II	B	T1+C1
	2457709.4448	0.0002	I	B	T1+C1
	2457710.2123	0.0004	II	B	T1+C1
	2457710.3707	0.0002	I	B	T1+C1
	2457711.2961	0.0001	I	B	T1+C1
	2457711.4464	0.0005	II	B	T1+C1
	2457712.3730	0.0005	II	B	T1+C1
	2457713.2984	0.0006	II	B	T1+C1
	2457714.2249	0.0005	II	B	T1+C1

Table 1: cont.

System	HJD	Error	Type	Filters	Remark
DV Psc	2457715.3072	0.0001	I	B	T1+C1
	2457715.4533	0.0010	II	B	T1+C1
	2457716.2327	0.0011	I	B	T1+C1
FT UMa	2457716.3843	0.0004	II	B	T1+C1
	2456605.6571	0.0005	II	BVRI	T1+C1
	2456606.6405	0.0008	I	BVRI	T1+C1
	2456614.4992	0.0005	I	BVRI	T1+C1
	2456631.5205	0.0004	I	BVRI	T1+C1
	2456632.4969	0.0005	II	BVRI	T1+C1
	2456633.4820	0.0003	I	BVRI	T1+C1
	2456646.5813	0.0003	I	BVRI	T1+C1
	2456649.5195	0.0004	II	BVRI	T1+C1
	2456662.6252	0.0004	II	BVRI	T1+C1
	2456675.3882	0.0004	I	BVRI	T1+C1
	2456700.5841	0.0003	II	BVRI	T1+C1
	2456704.5164	0.0003	II	BVRI	T1+C1
AG Vir	2456798.3319	0.0005	I	BVRI	T1+C1
	2456825.3228	0.0004	I	BVRI	T1+C1
NN Vir	2452725.5075	0.0003	II	BVRI	T1+C3
	2452727.4294	0.0003	II	BVR	T1+C3
	2452732.4766	0.0003	I	BVRI	T1+C3
	2452738.4843	0.0004	II	BVRI	T1+C3
	2452739.4465	0.0006	II	BVRI	T1+C3
	2452767.3272	0.0004	II	BVRI	T1+C3
	2452793.2847	0.0007	II	BVRI	T1+C3
	2452793.5231	0.0003	I	VR	T1+C3
2452795.4456	0.0006	I	BVR	T1+C3	

Explanation of the remarks in the table:

T1, T2, C1, C2, C3, C4 and C5 refer to the instrumentation (telescope and CCD camera) used for each case.

Remarks:

A large number of the above observations were performed utilizing the robotic and remotely controlled telescope at the University of Athens: (<http://observatory.phys.uoa.gr>) (Gazeas 2016).

Acknowledgements:

Times of minima of contact binaries presented in this work are by-product of the *W UMa Project* (Papers I - VII) (Kreiner et al. 2003; Baran et al. 2004; Zola et al. 2004; Gazeas et al. 2005; Zola et al. 2005; Gazeas et al. 2006; Zola et al. 2010.), which aims in performing accurate photometric and spectroscopic study of eclipsing binaries of W UMa type. In addition, part of this work is a result of the *Contact Binaries Towards Merging (CoBiToM) Project*, initiated and still undergoing at the National and Kapodistrian University of Athens since 2012 (PI: K.Gazeas).

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