



BAV-Results of observations – transits of exoplanets in 2019

Raetz, Manfred

E-Mail : exopl@bav-astro.de

September 2020

Abstracts: 49 results of the observation of 39 transit planets are listed, which were obtained by observers of the BAV in 2019.

All results were obtained in 2019 by photometry of CCD images and the subsequent evaluation of the light curves obtained using the ETD algorithm [1]. All Times of Mid transit are heliocentric UTC, expressed as Heliocentric Julian Date (HJD). The transit duration is given in minutes and the transit depth in mag. The mean errors are tabulated in columns “+/-”.

In those cases in which no values were given for the transit depth or transit duration, these values had to be assumed as given in the evaluation process

Most results listed here have already been sent to the ETD.

Exoplanet	HJD 24..	+/-	Duration	+/-	Depth	+/-	Filter	Obs	Rem.
GJ 1217b	58593.55238	0.00067	58.0	2.4	0.0220	0.0017	Clear	RAT_1	
HAT-P-5b	58742.37260	0.00069	166.4	2.3	0.0176	0.0006	R	RAT_1	
HAT-P-14b	58688.48350	0.00112	154.6	4.9	0.0087	0.0004	R	RAT_1	
HAT-P-19b	58723.49303	0.00054	166.4	1.9	0.0236	0.0005	Clear	RAT_1	
HAT-P-19b	58779.61775	0.00079			0.0210	0.0011	Clear	RAT_1	
HAT-P-34b	58730.44871	0.00089	210.9	2.7	0.0070	0.0003	R	RAT_2	
HAT-P-36b	58575.60890	0.00082	147.0	2.7	0.0214	0.0010	R	RAT_1	
HAT-P-36b	58587.55034	0.00073	131.6	2.6	0.0220	0.0009	R	RAT_1	
HAT-P-44b	58574.43156	0.00082	186.3	2.9	0.0259	0.0015	Clear	RAT_1	
HAT-P-52b	58531.35861	0.00175	171.1	6.0	0.0196	0.0017	R	RAT_1	
HAT-P-53b	58848.38885	0.00135	160.6	4.0	0.0137	0.0015	R	RAT_1	
Kelt-1b	58720.48778	0.00115					R	RAT_1	
Kelt-1b	58748.49226	0.00097					Clear	RAT_1	
Kelt-1b	58770.40906	0.00092	174.4	2.9	0.0061	0.0003	Clear	RAT_1	
Kelt-3b	58848.52046	0.00362			0.0099	0.0015	R	RAT_1	
Kelt-7b	58846.60452	0.00235	225.3	8.3	0.0089	0.0011	R	RAT_1	
Kelt-16b	58737.56033	0.00143	148.0	4.8	0.0128	0.0009	Clear	RAT_1	
Kepler-17b	58635.49963	0.00068	131.4	2.3	0.0217	0.0009	Clear	RAT_1	
Kepler-17b	58690.46895	0.00082	139.4	2.7	0.0248	0.0010	Clear	RAT_1	
KOI-0013b	58729.40306	0.00105	180.9	3.0	0.0031	0.0006	R	RAT_2	
KOI-0188b	58748.34666	0.00128	115.0	4.3	0.0187	0.0021	Clear	RAT_1	

Exoplanet	HJD 24..	+/-	Duration	+/-	Depth	+/-	Filter	Obs	Rem.
KOI-0201b	58718.47924	0.00179	156.1	5.9	0.0091	0.0009	Clear	RAT_1	
KOI-0809b	58727.37754	0.00092	109.6	3.0	0.0177	0.0010	Clear	RAT_2	
KOI-1227b	58643.47989	0.00084	106.2	2.9	0.0216	0.0012	Clear	RAT_1	
KOI-1465b	58691.50414	0.00193	88.2	6.7	0.0055	0.0009	Clear	RAT_1	
KPS-1b	58564.58657	0.00139	103.2	5.4	0.0122	0.0010	Clear	RAT_1	
KPS-1b	58605.53557	0.00072	100.7	2.9	0.0147	0.0007	Clear	RAT_1	
KPS-1b	58617.48249	0.00056	107.0	2.3	0.0178	0.0006	Clear	RAT_1	
Qatar-4b	58771.54221	0.00158	113.3	5.8	0.0323	0.0020	Clear	RAT_1	
Qatar-5b	58747.61588	0.00059	169.3	2.1	0.0144	0.0006	Clear	RAT_1	
Qatar-10b	58746.44080	0.00052	164.3	1.8	0.0208	0.0005	Clear	RAT_1	1)
TrES-3b	58786.29936	0.00039	87.2	1.9	0.0289	0.0008	Clear	RAT_1	
TrES-5b	58637.49470	0.00047	109.5	1.8	0.0256	0.0008	Clear	RAT_1	
WASP-3b	58633.50714	0.00064	163.1	2.2	0.0132	0.0004	R	RAT_1	
WASP-12b	58837.54931	0.00073	170.5	2.5	0.0176	0.0008	Clear	RAT_1	
WASP-33b	58786.53478	0.00053	180.8	1.7	0.0155	0.0004	R	RAT_1	
WASP-33b	58846.30971	0.00036	177.9	1.1	0.0177	0.0003	R	RAT_1	
WASP-48b	58721.48624	0.00126	192.3	4.5	0.0090	0.0004	Clear	RAT_1	
WASP-48b	58779.36037	0.00114	173.2	4.0	0.0096	0.0005	Clear	RAT_1	
WASP-75b	58726.52689	0.00246	155.2	10.7	0.0112	0.0011	Clear	RAT_2	
WASP-103b	58572.62065	0.00129			0.0171	0.0018	R	RAT_1	
WASP-104b	58505.57803	0.00119	109.9	5.4	0.0172	0.0019	R	RAT_1	
WASP-113b	58541.57680	0.00127	245.4	4.1	0.0090	0.0005	R	RAT_1	
WASP-113b	58591.53920	0.00217			0.0096	0.0011	R	RAT_1	
XO-2b	58529.31431	0.00057	161.2	1.9	0.0147	0.0005	R	RAT_1	
XO-2b	58589.47953	0.00116			0.0126	0.0012	R	RAT_1	
XO-6b	58595.45074	0.00056	180.1	1.9	0.0158	0.0004	R	RAT_1	

Remarks

1) not listed in ETD ; Result of the data analysis is shown in fig. 1

Observers and instruments

RAT_1 Raetz, Manfred Herges-Hallenberg;

SCT 280/1790 + Moravian Instruments G2-1600

RAT_2 Raetz, Manfred Herges-Hallenberg;

Cass. 600/4800 + Moravian Instruments G2-1600 (Volkssternwarte Kirchheim)

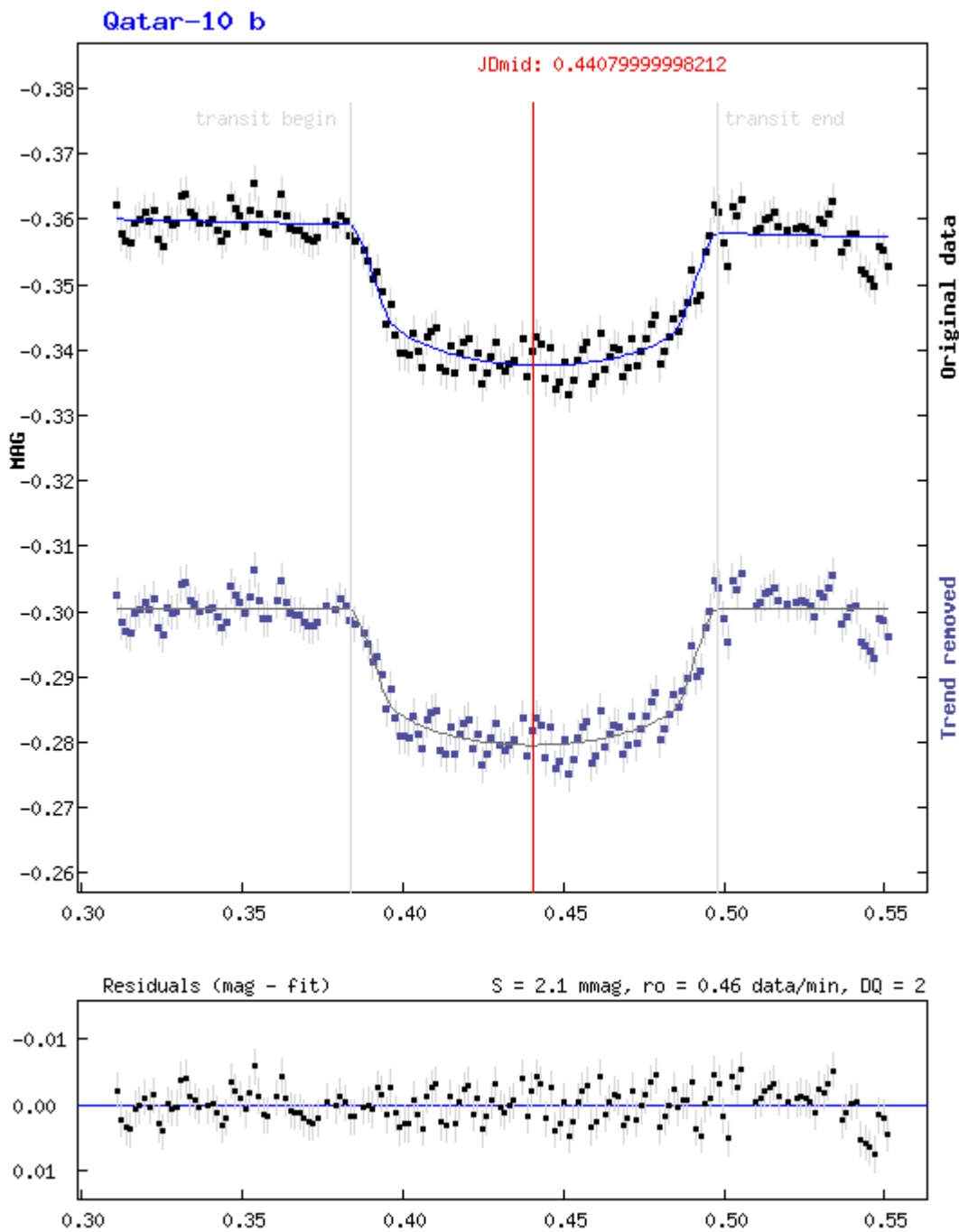


Fig.1 : Result of the data analysis of Qatar-10b with the algorithm of the ETD

References

- [1] Poddany S., Brat L., Pejcha O., *New Astronomy* 15 (2010), pp. 297-301, [Exoplanet Transit Database. Reduction and processing of the photometric data of exoplanet transits](#)