

# KIC 003548369

## Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	$R_{\star}$ ( $R_{\odot}$ )	$T_{\star}$ (K)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
003548369-01	OBS	No	1.184804	132.016303	22.1	7.150	7.4	7.5	2.28	7935	1.11	25487.94

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003548369-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV

**Notes:** OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

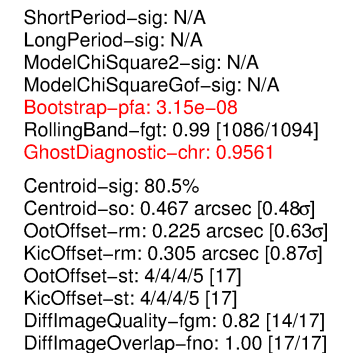
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

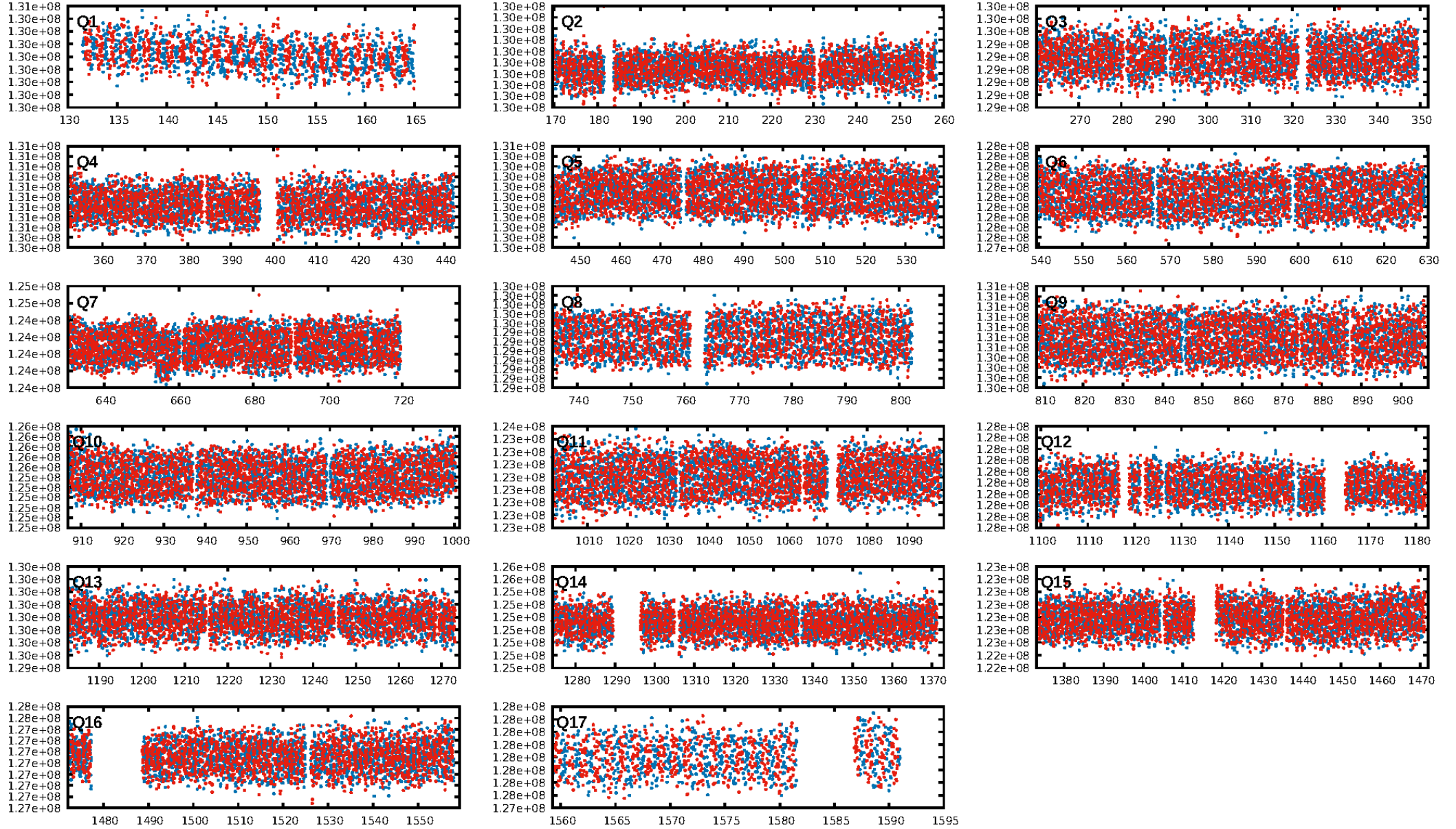
## Ephemeris Match Information For 003548369-01

No Significant Match Found

## KIC: 3548369    Candidate: 1 of 1    Period: 1.185 d

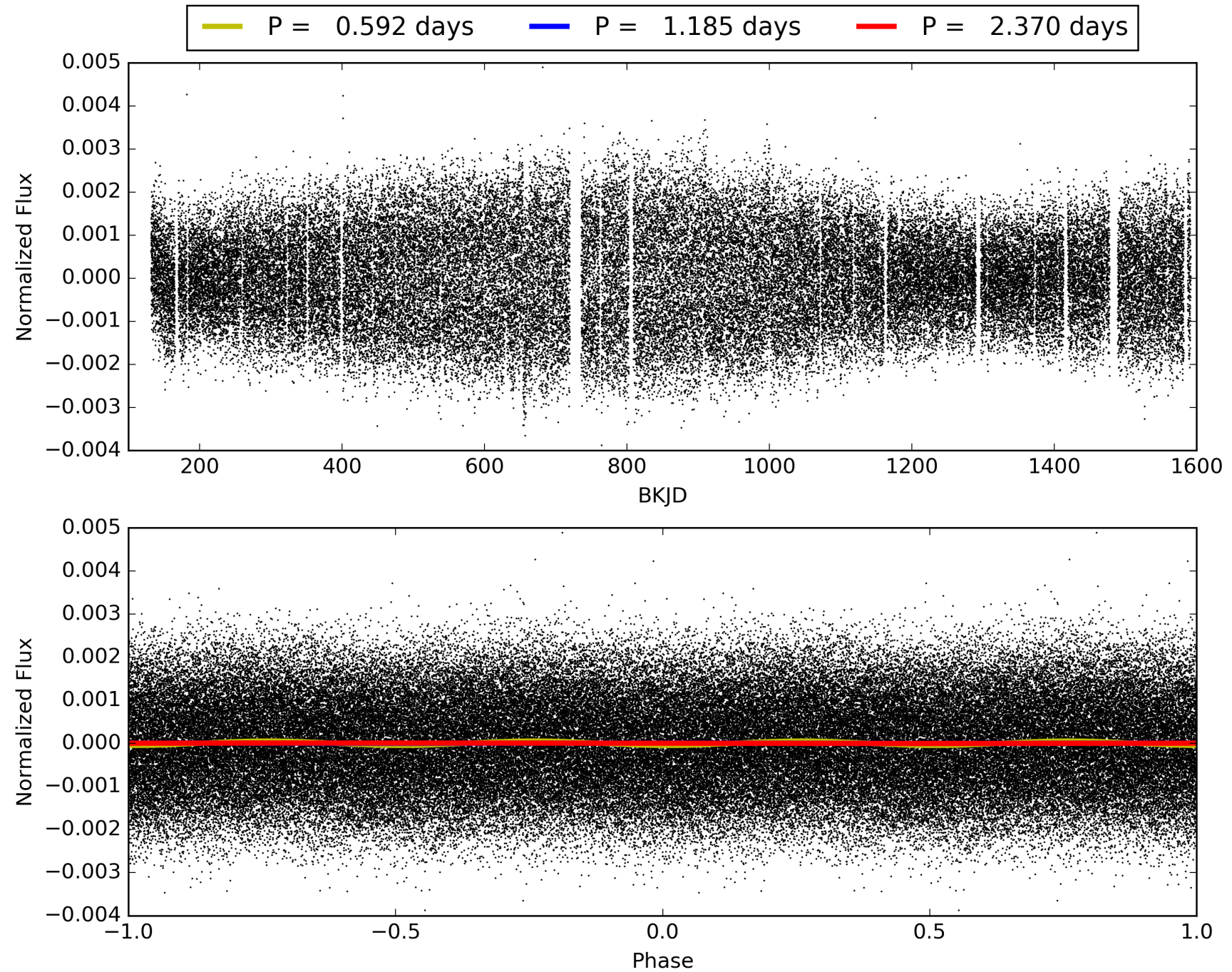


# TCE 003548369-01, PDC Light Curves



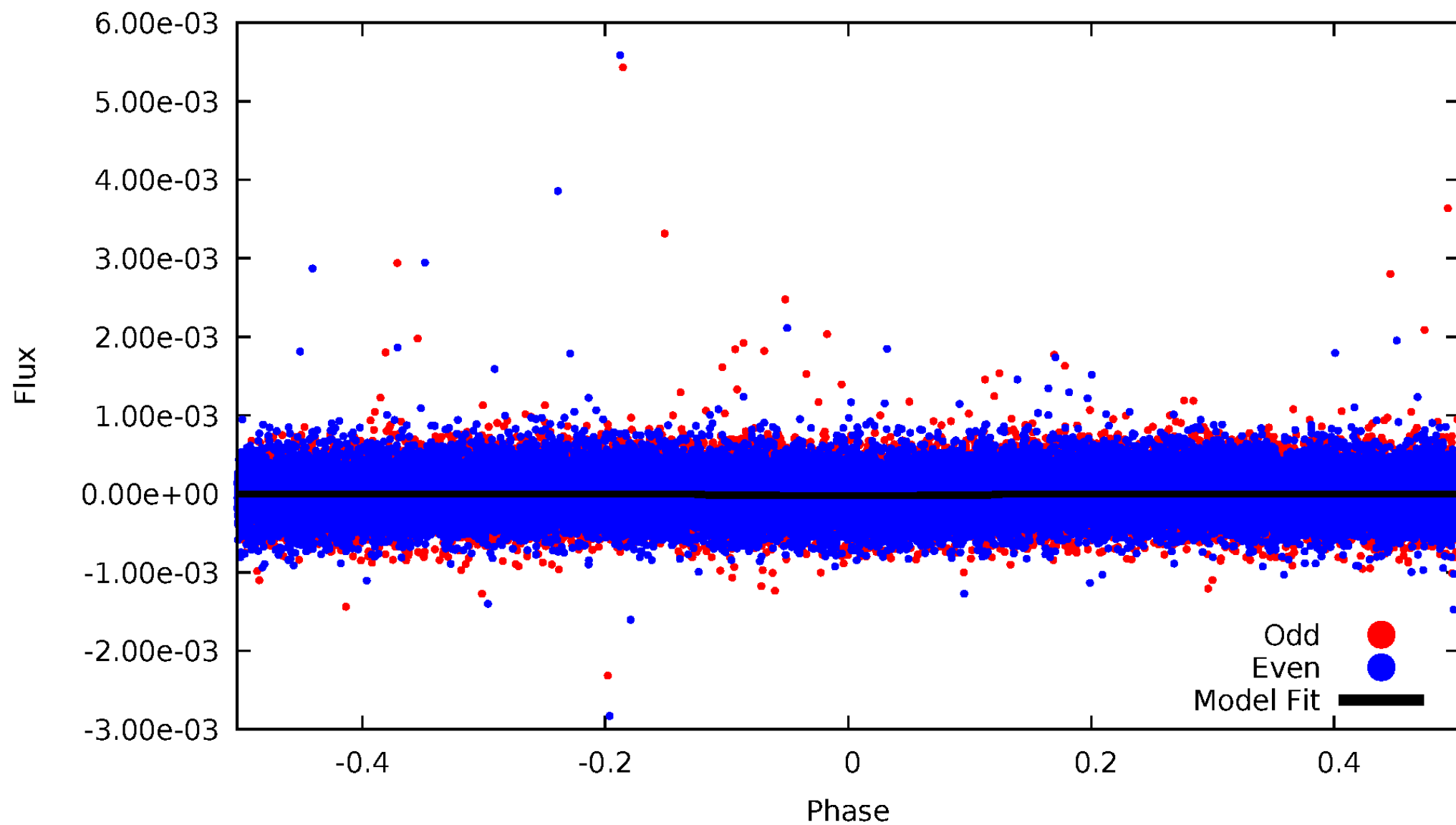


# TCE 003548369-01



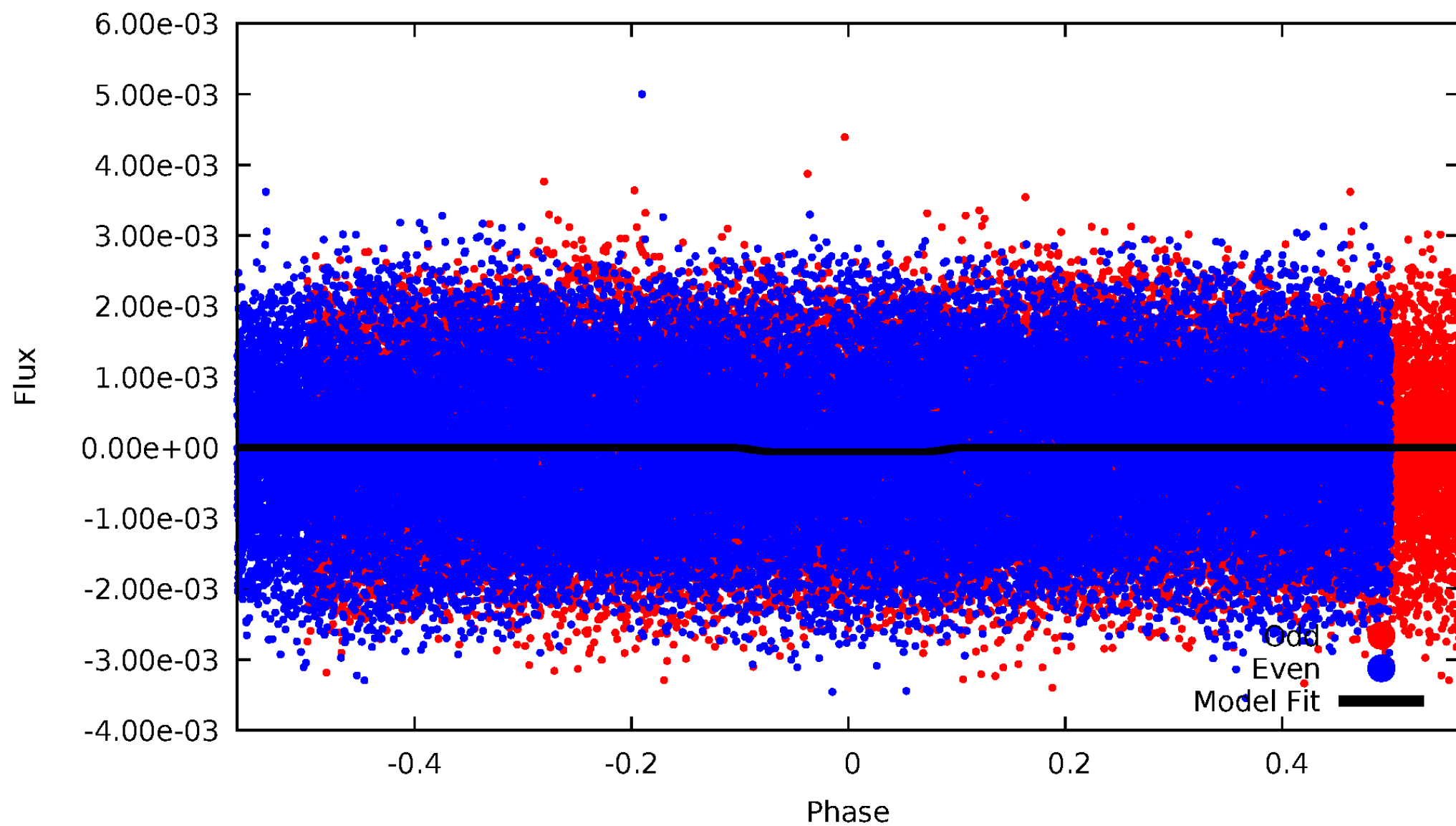
# DV Odd/Even

TCE 003548369-01



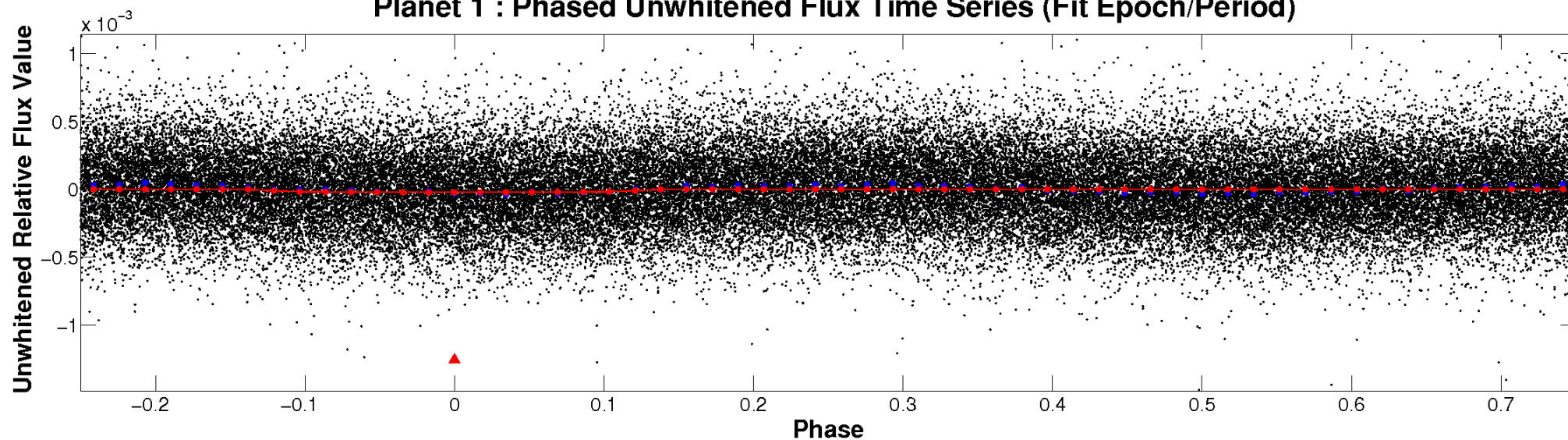
# ALT Odd/Even

TCE 003548369-01

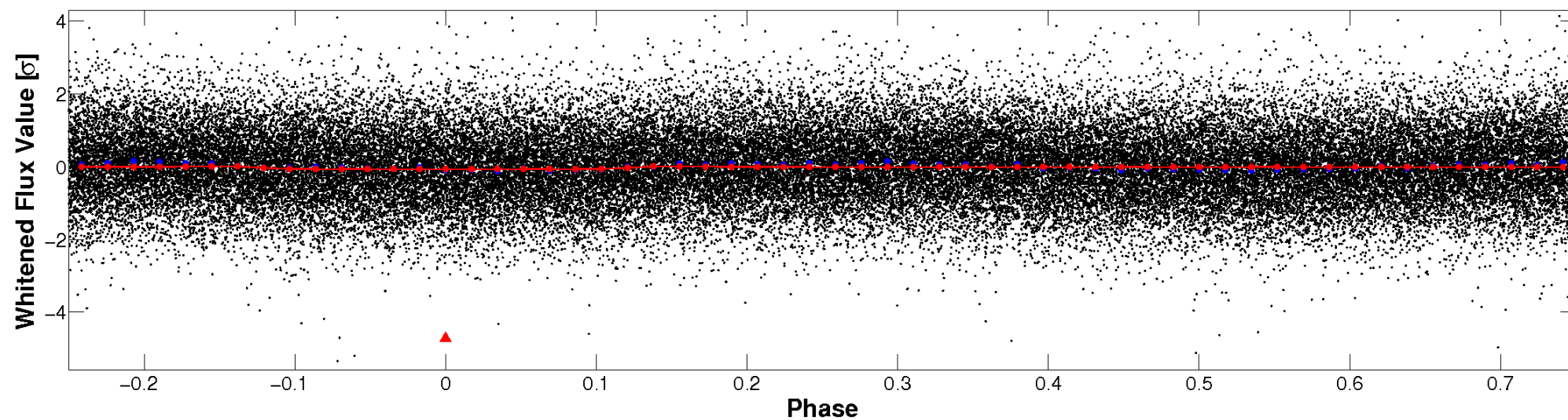


# Non-Whitened Vs. Whitened Light Curve

**Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)**



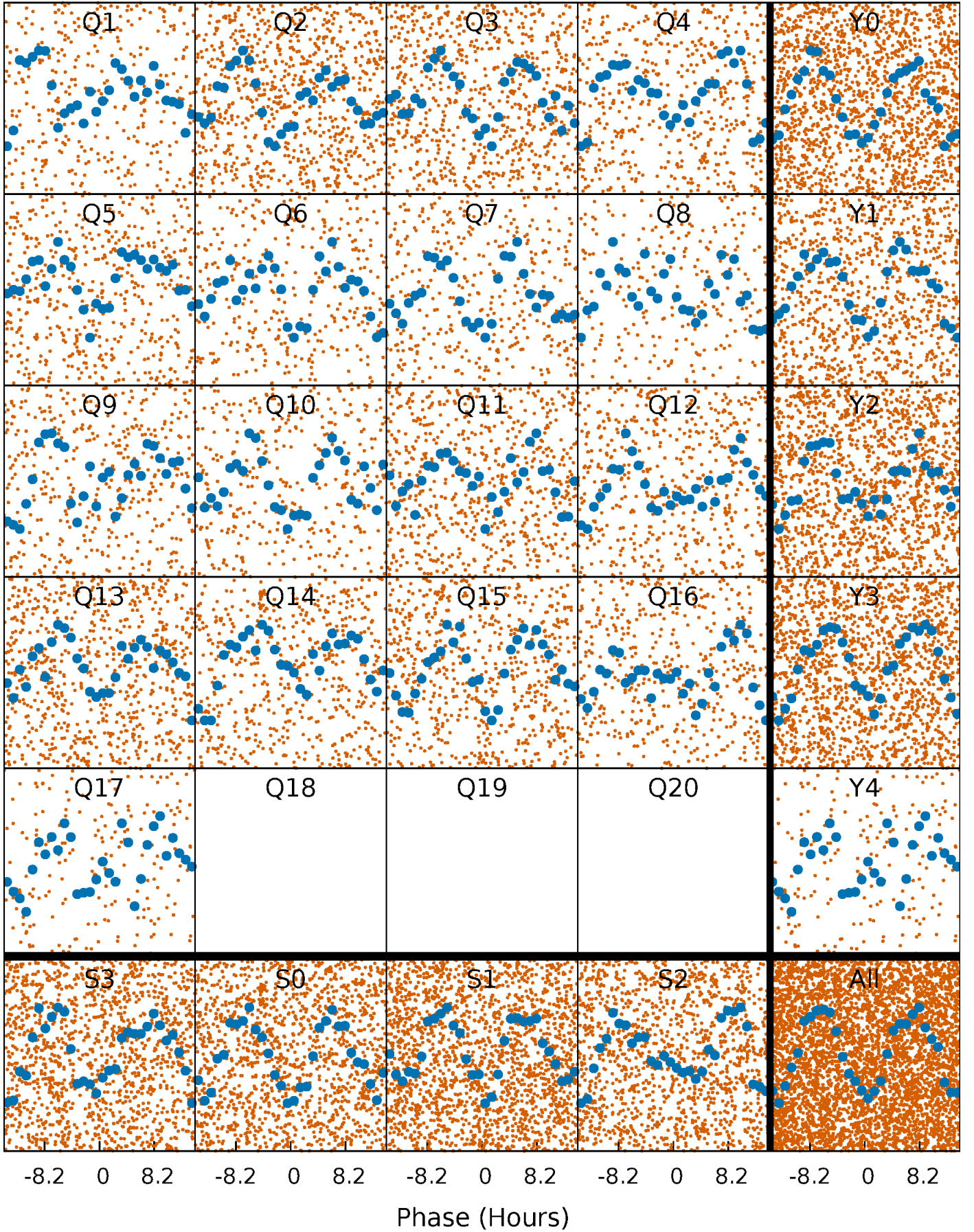
**Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)**





# PDC Quarter-Phased Transit Curves

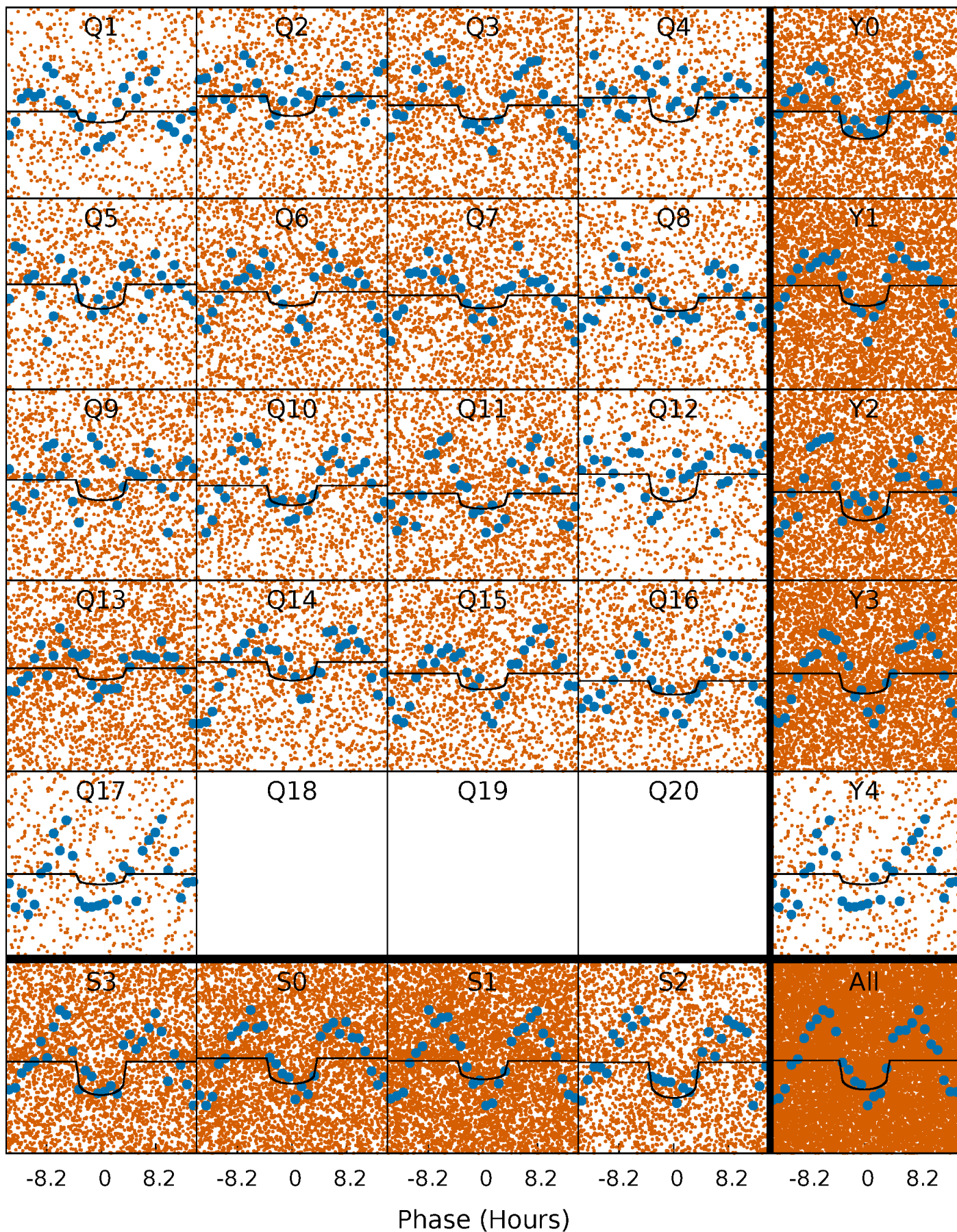
TCE 003548369-01 P= 1.184804 Days  $T_0=132.016303$  (BKJD)





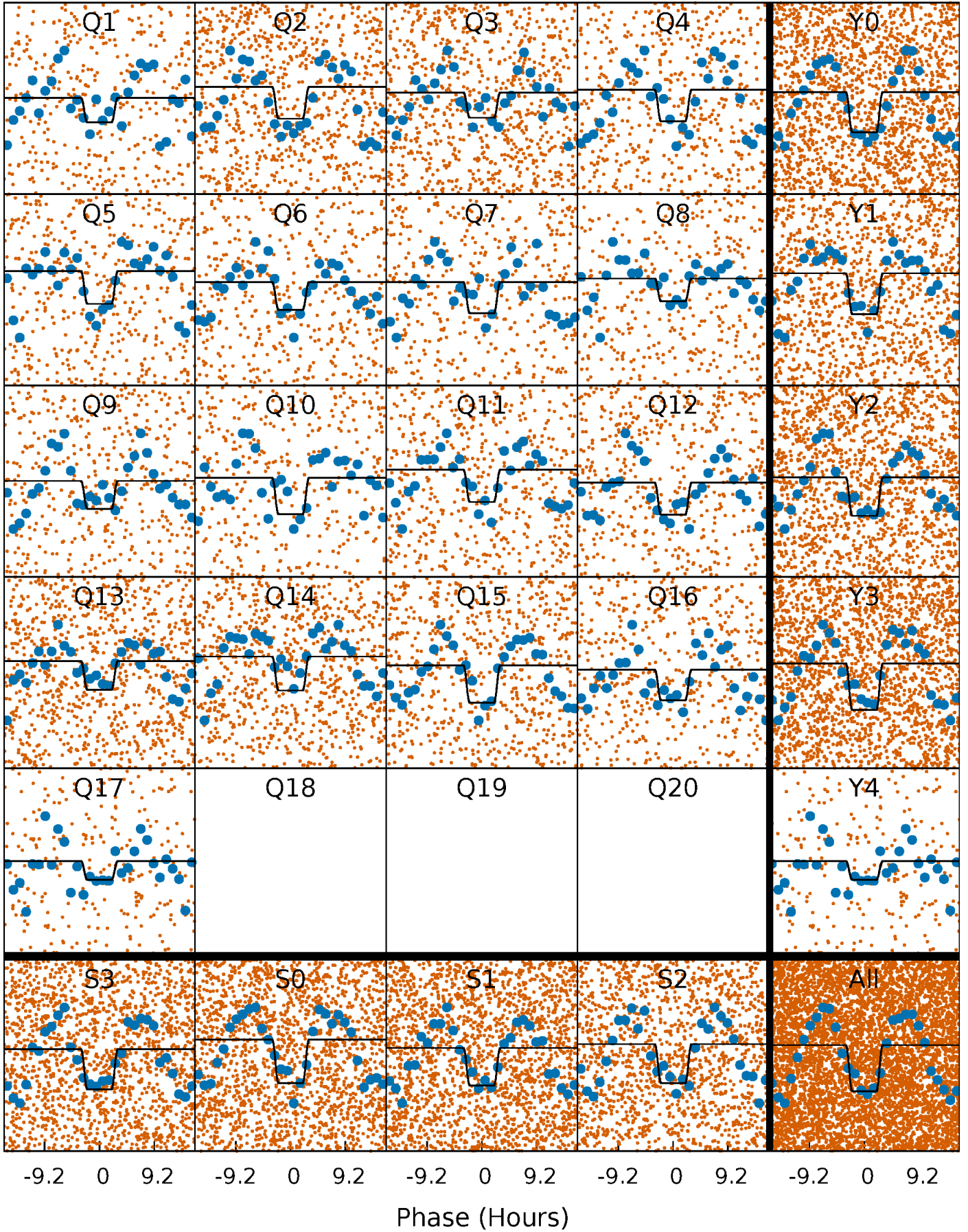
# DV Quarter-Phased Transit Curves

TCE 003548369-01 P= 1.184804 Days  $T_0=132.016303$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

TCE 003548369-01 P= 1.184889 Days  $T_0=131.980356$  (BKJD)

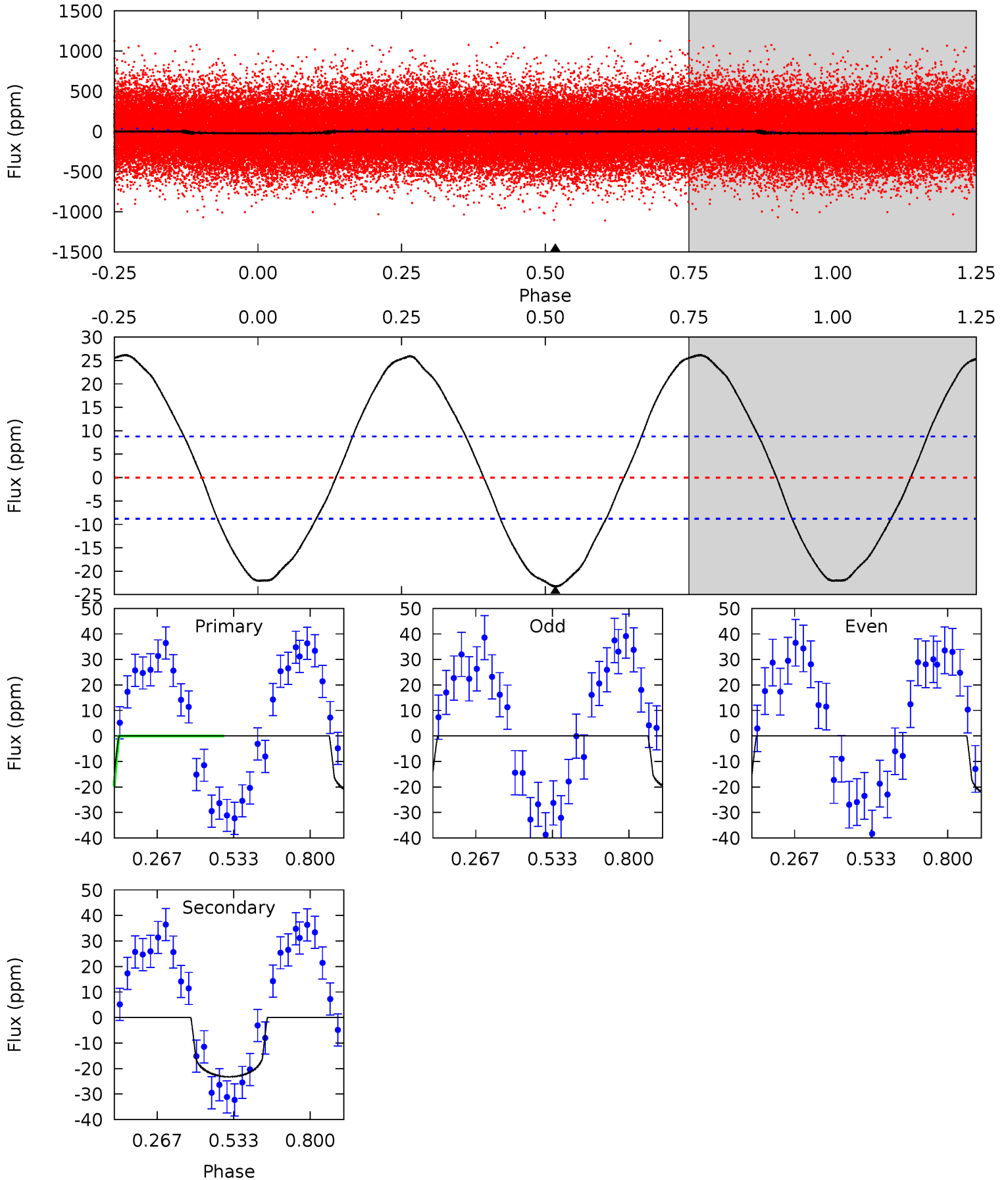




# DV Model-Shift Uniqueness Test

003548369-01, P = 1.184804 Days, E = 130.831499 Days

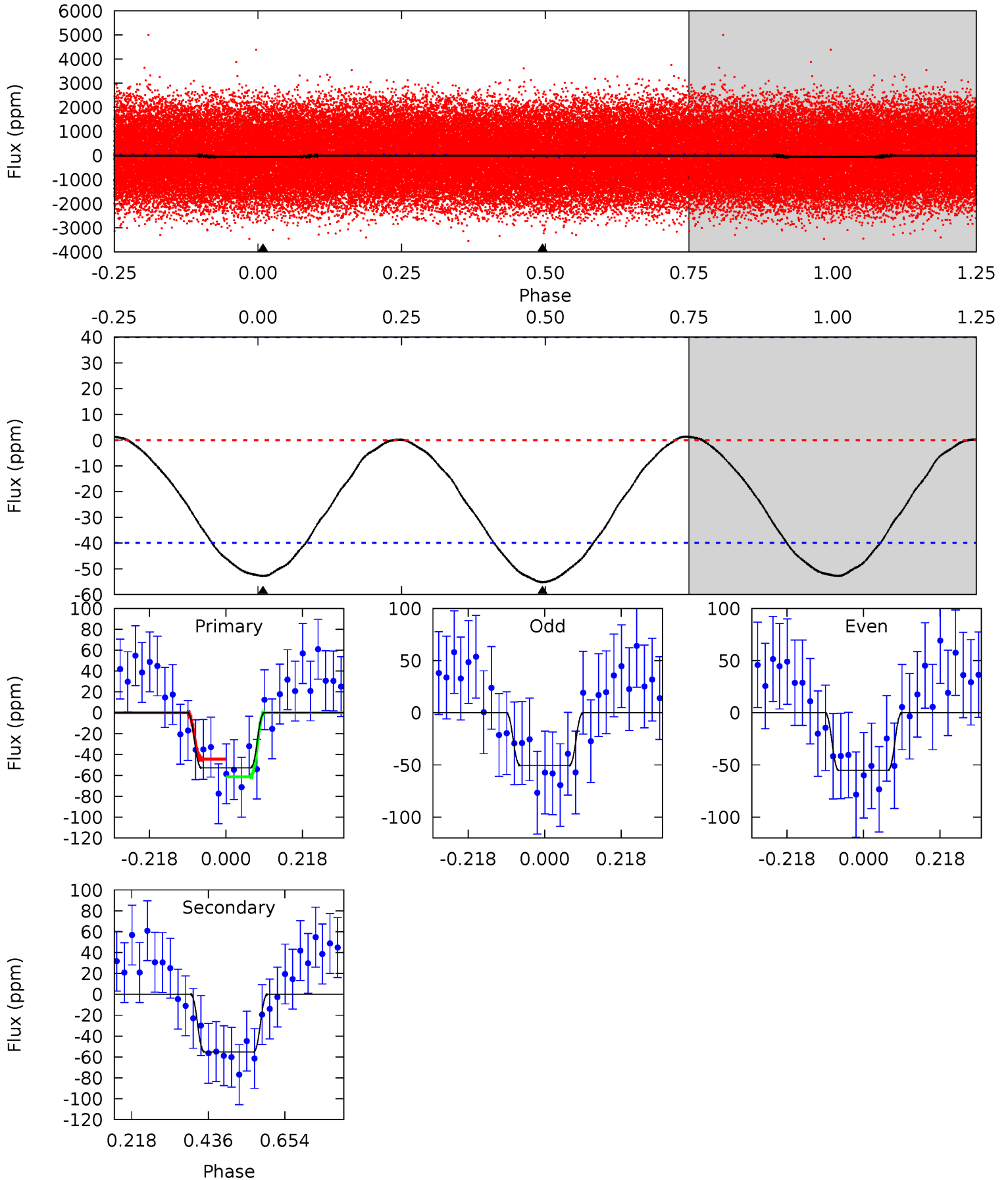
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.5	11.5	0	0	4.35	1.11	8.01	11.5	11.5	11.5	11.5	0.70	1.15	0.53	3.46



# Alt Model-Shift Uniqueness Test

003548369-01, P = 1.184889 Days, E = 130.795467 Days

Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.81	6.08	0	0	4.40	1.23	0.12	5.81	5.81	6.08	6.08	0.26	1.01	0.02	0.93





### Stellar Parameters For KIC 003548369

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	$7935^{+219}_{-357}$	$3.989^{+0.204}_{-0.136}$	$-0.060^{+0.150}_{-0.350}$	$2.276^{+0.446}_{-0.669}$	$1.843^{+0.120}_{-0.361}$	$0.220^{+0.292}_{-0.080}$
	+3%/-4%	+5%/-3%	+250%/-583%	+20%/-29%	+7%/-20%	+133%/-36%
Source	KIC0	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology  
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

### Secondary Eclipse Parameters for KIC 003548369-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	$A_{obs}$
DV	$-23 \pm 2$	$1.24^{+0.85}_{-0.72}$	$4456^{+310}_{-342}$	$7397^{+7022}_{-1748}$	$5.806^{+26.537}_{-3.654}$
Alt.	$-55 \pm 9$	$1.84^{+0.94}_{-0.91}$	$4466^{+302}_{-337}$	$7724^{+4301}_{-1730}$	$6.665^{+17.576}_{-3.962}$

$T_{max}$  = Theoretical Maximum Planetary Temperature  
 $T_{obs}$  = Observed Planetary Temperature (Assuming A=0.3)  
 $A_{obs}$  = Observed Albedo (Assuming T=0)

If a secondary eclipse is present, the system is likely an EB if  $T_{obs} \gg T_{max}$  AND  $A_{obs} \gg 1.0$

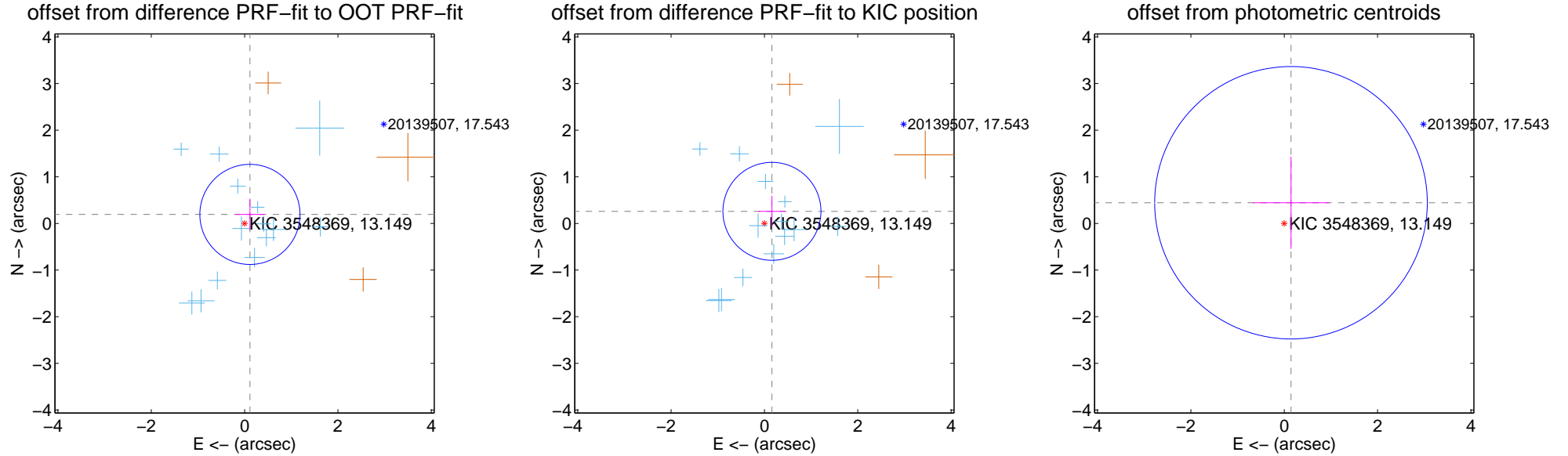
## DV Centroid Data

Supplemental centroid analysis for 003548369-01. Kepler magnitude: 13.15. Transit SNR 7.54

There are 14 quarters with good PRF difference image offsets

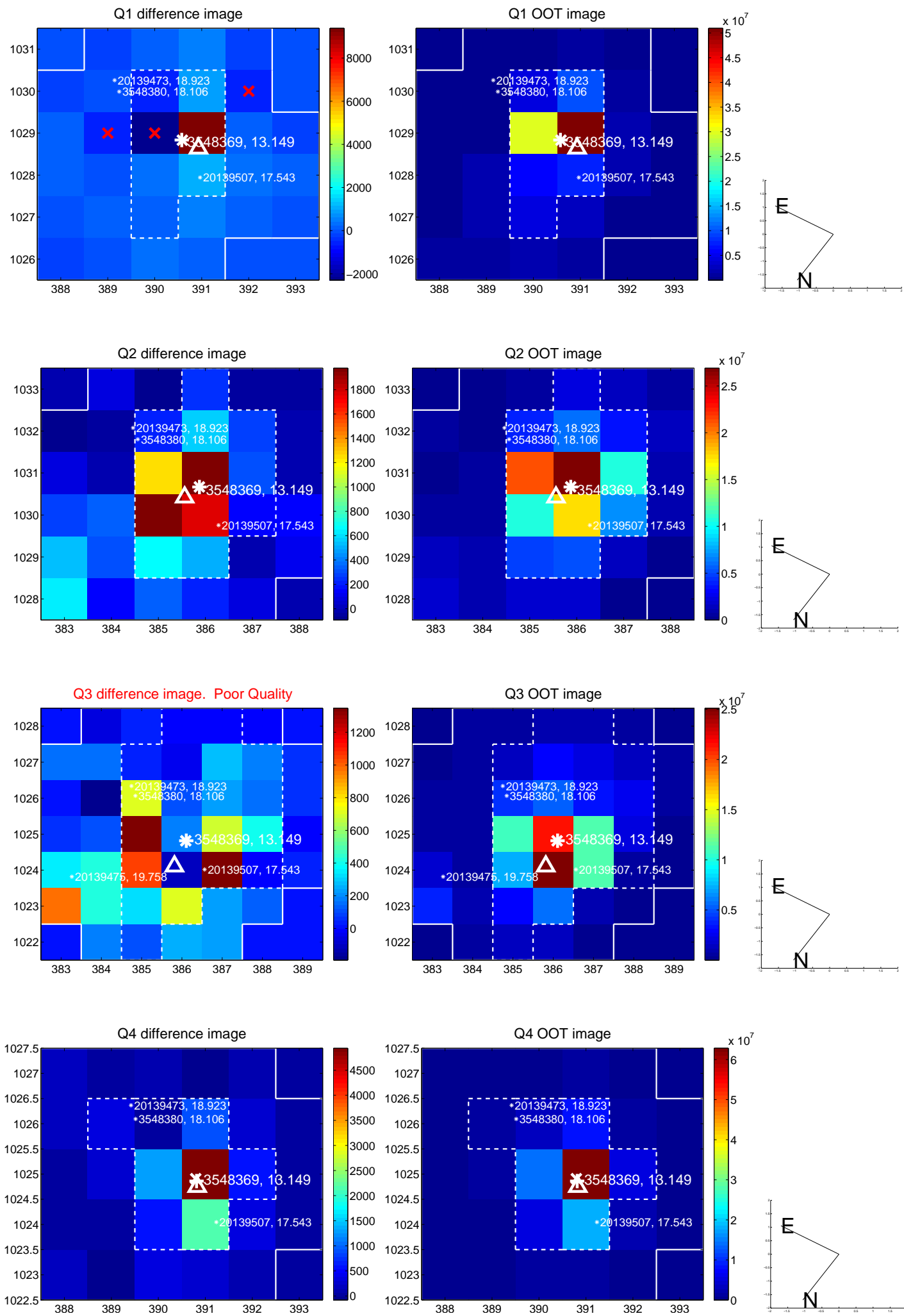
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.225 \pm 0.358$	0.63	$-0.114 \pm 0.312$	$0.194 \pm 0.339$
PRF-fit source offset from KIC position	$0.305 \pm 0.350$	0.87	$-0.161 \pm 0.298$	$0.260 \pm 0.331$
photometric centroid source offset	$0.47 \pm 0.97$	0.48	$-0.14 \pm 0.82$	$0.44 \pm 0.99$

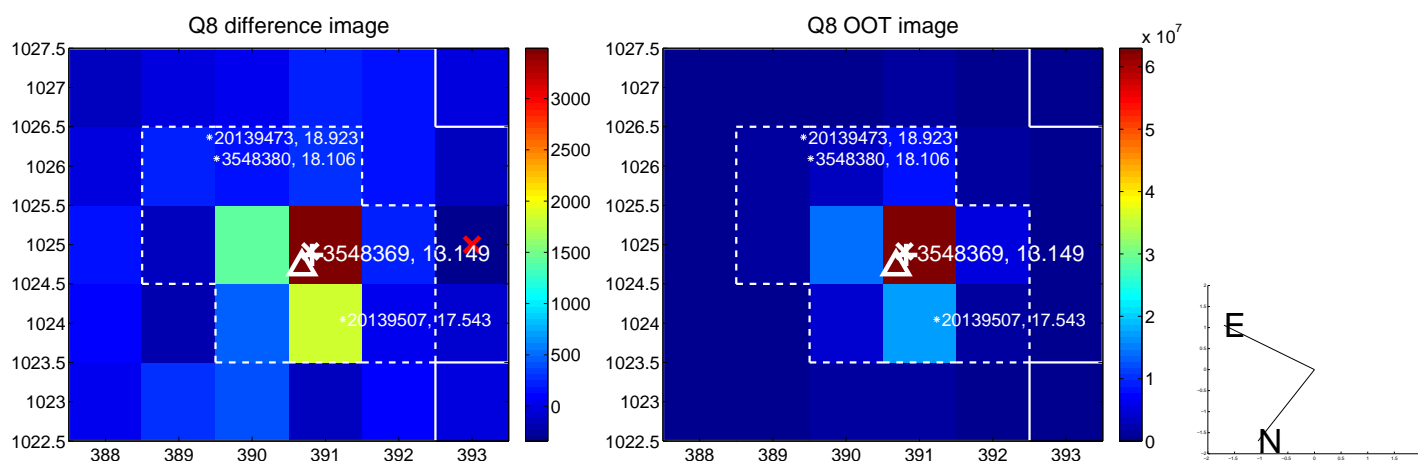
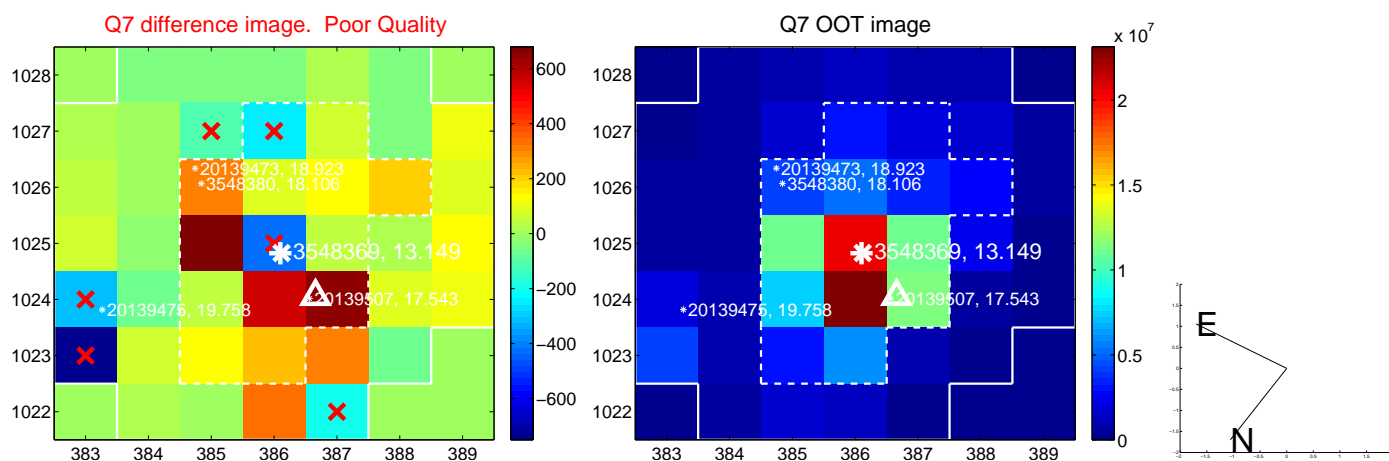
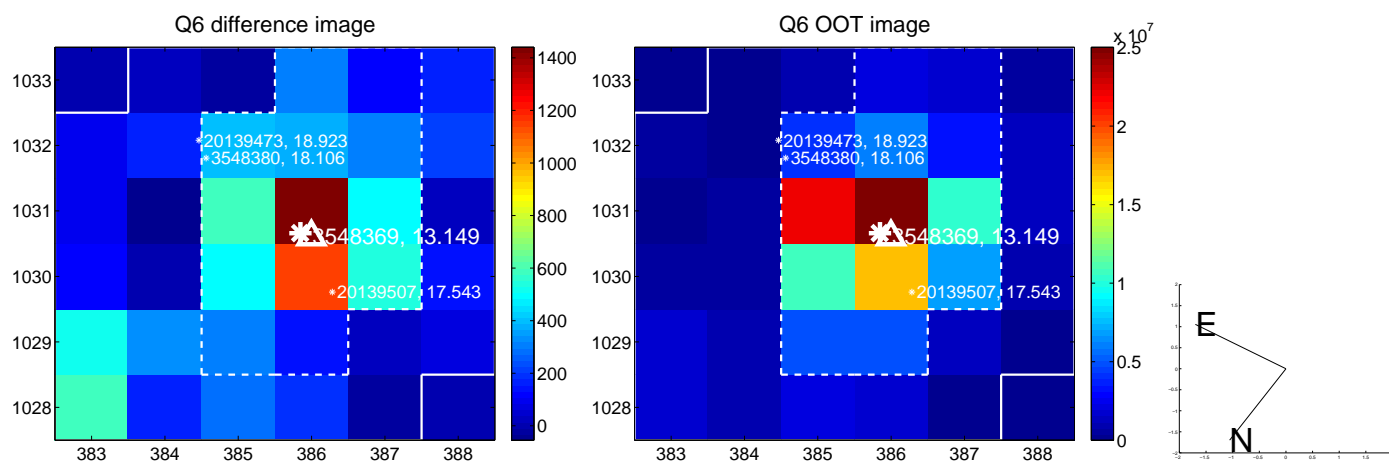
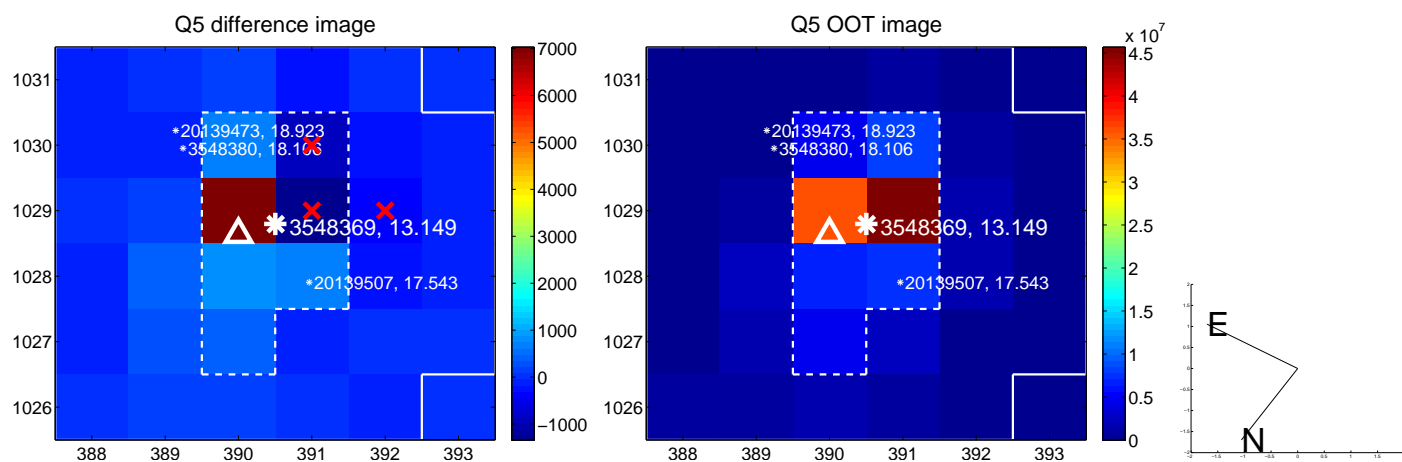


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: three- $\sigma$ . Red \*: target star. Blue \*: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

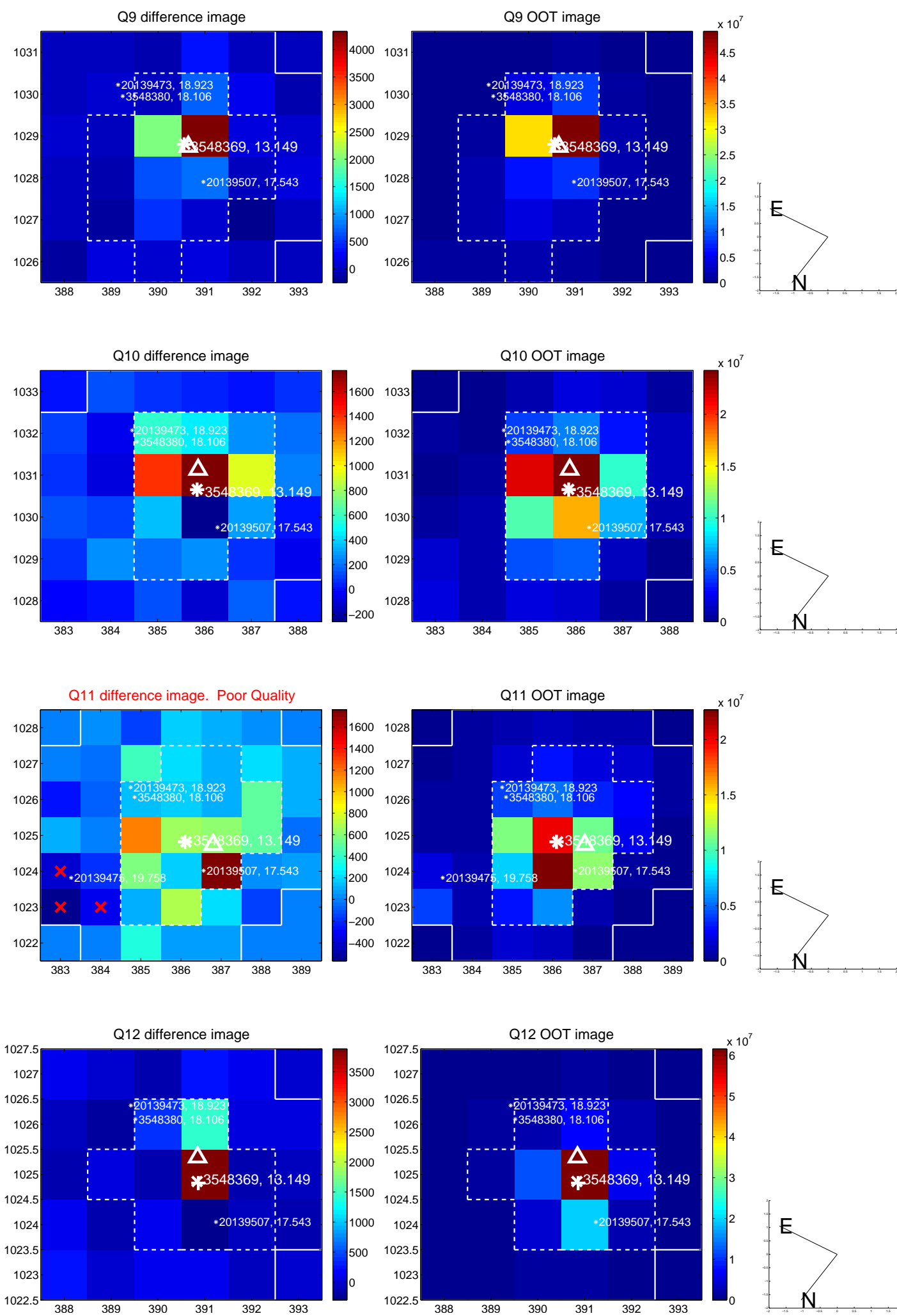


white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

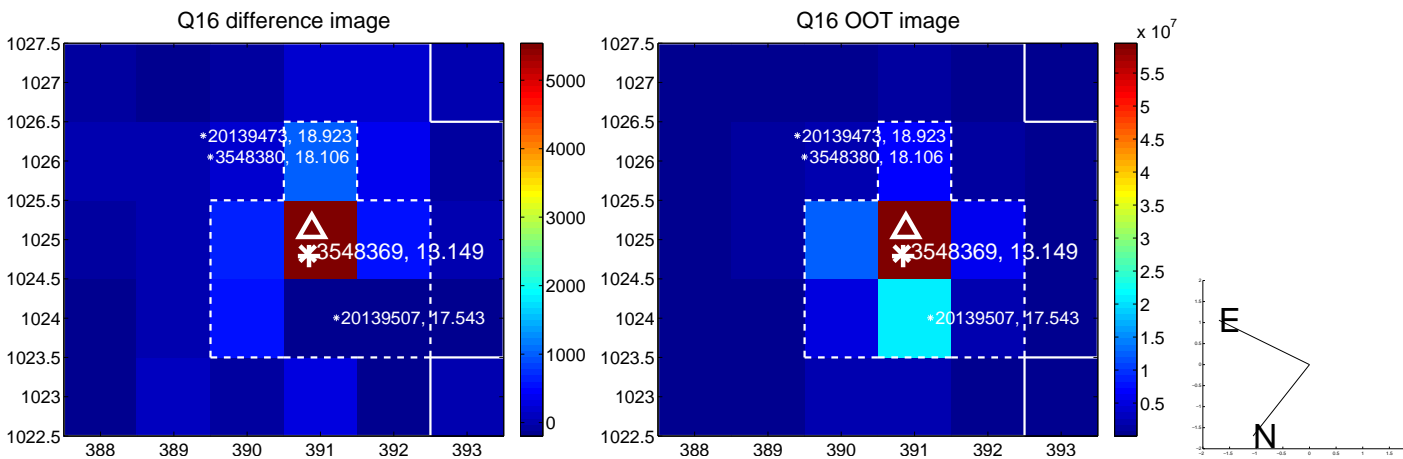
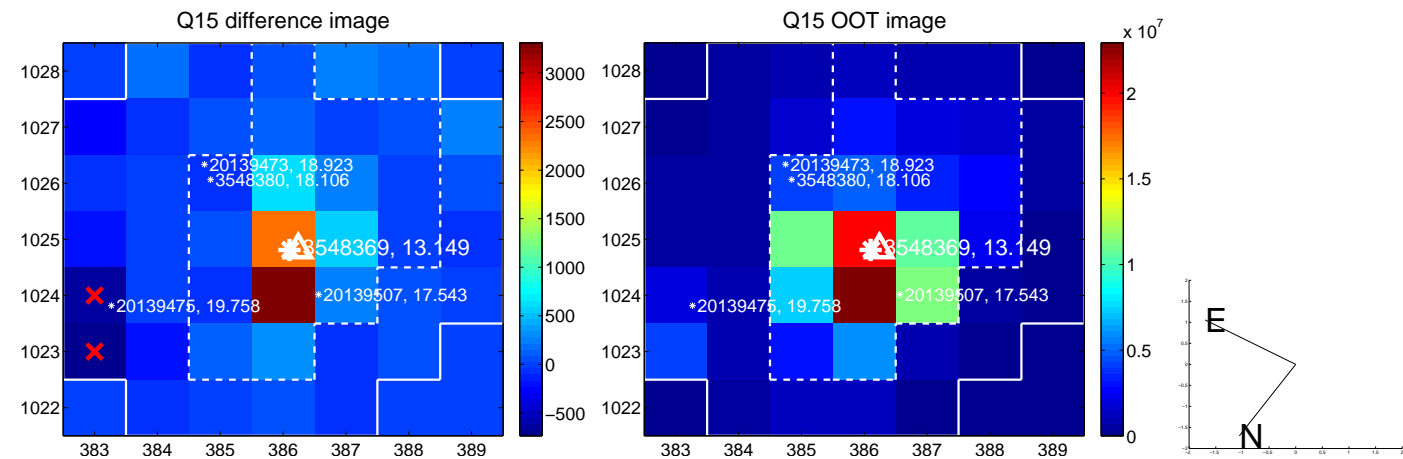
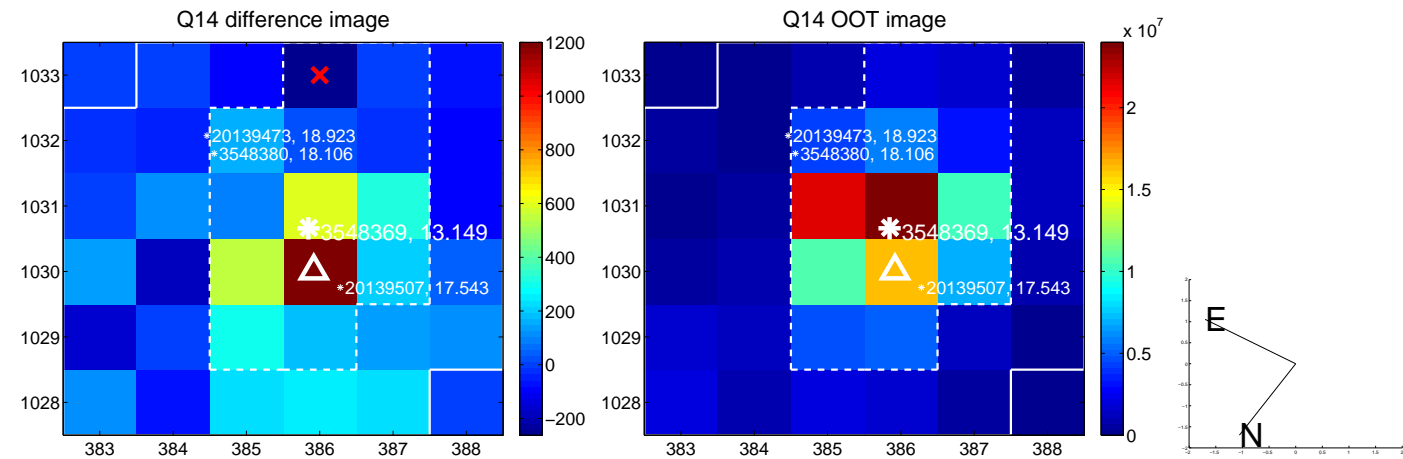
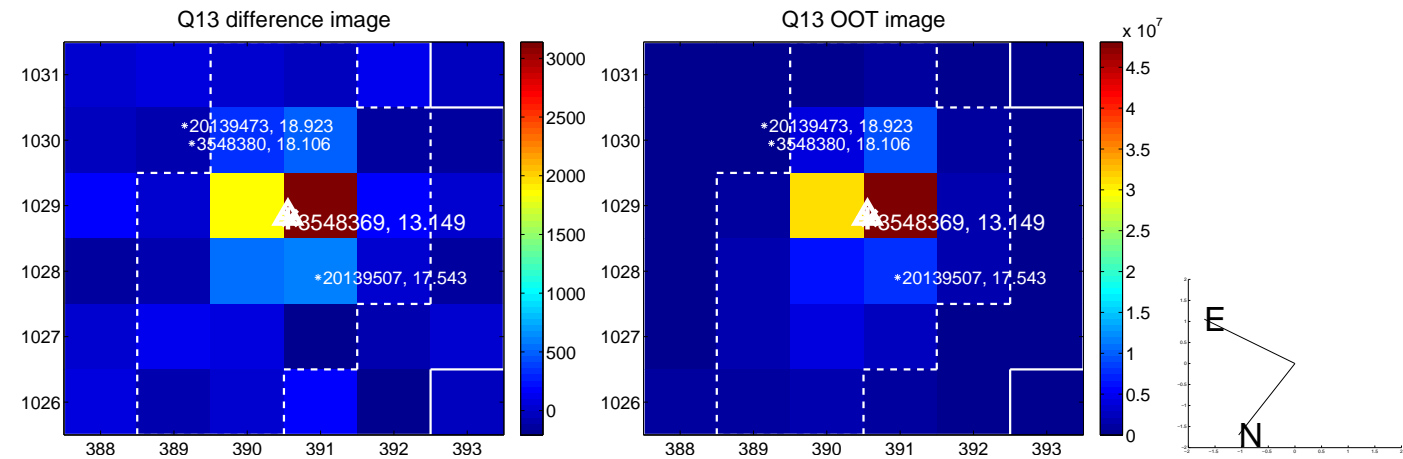




white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.





UKIRT Image

Declination

