

KIC 005091479

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})
005091479-01	OBS	7715.01	25.861522	140.203288	125.2	7.825	7.2	6.9	0.88	6067	1.12	33.44

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005091479-01	OBS	PC	0.62	0	0	0	0	NO_COMMENT

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

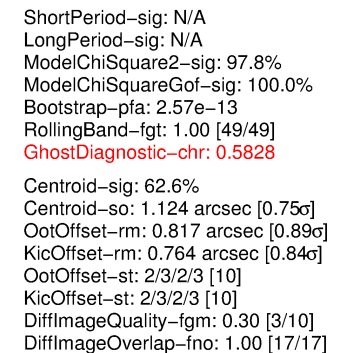
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

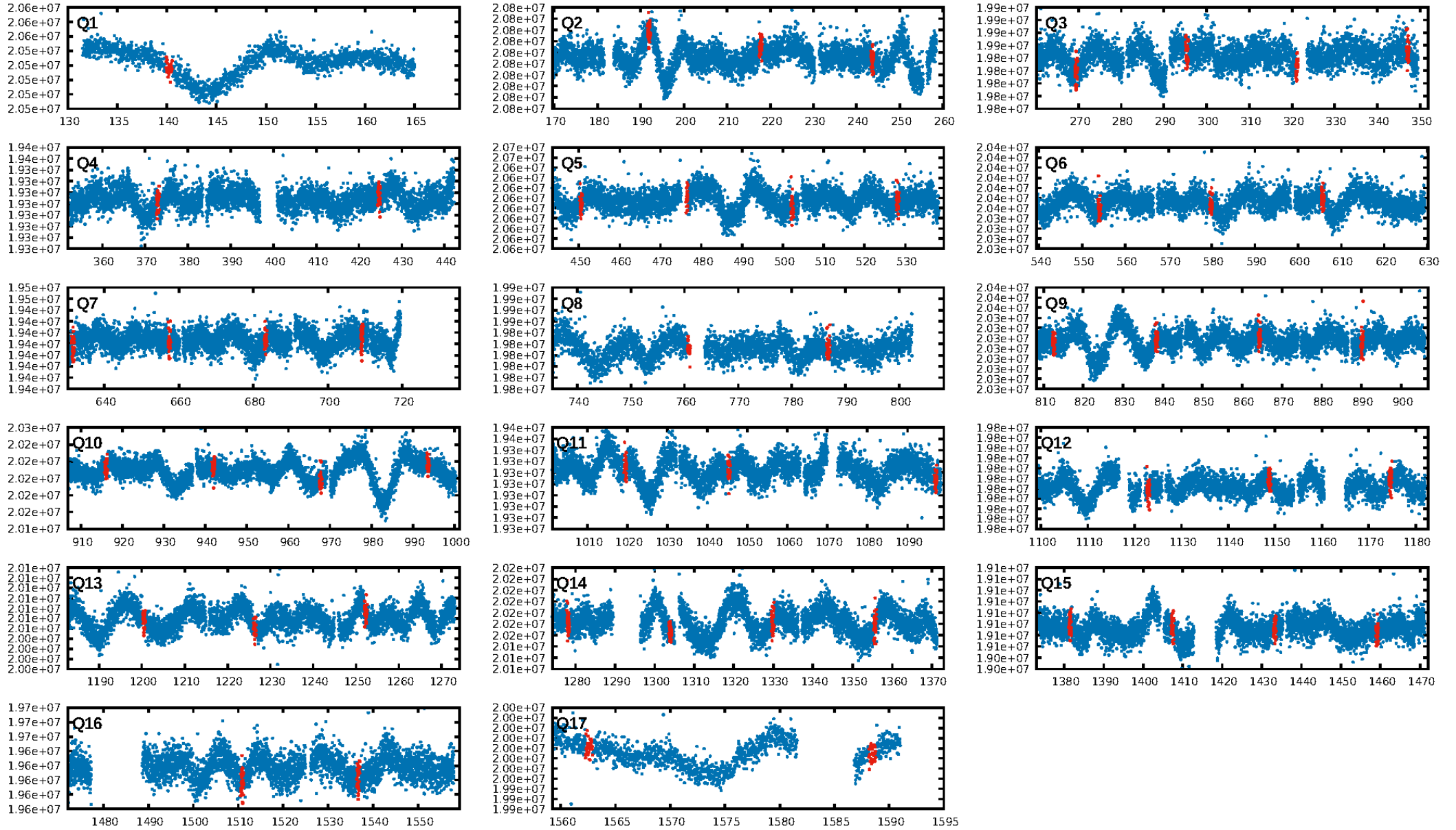
Ephemeris Match Information For 005091479-01

No Significant Match Found

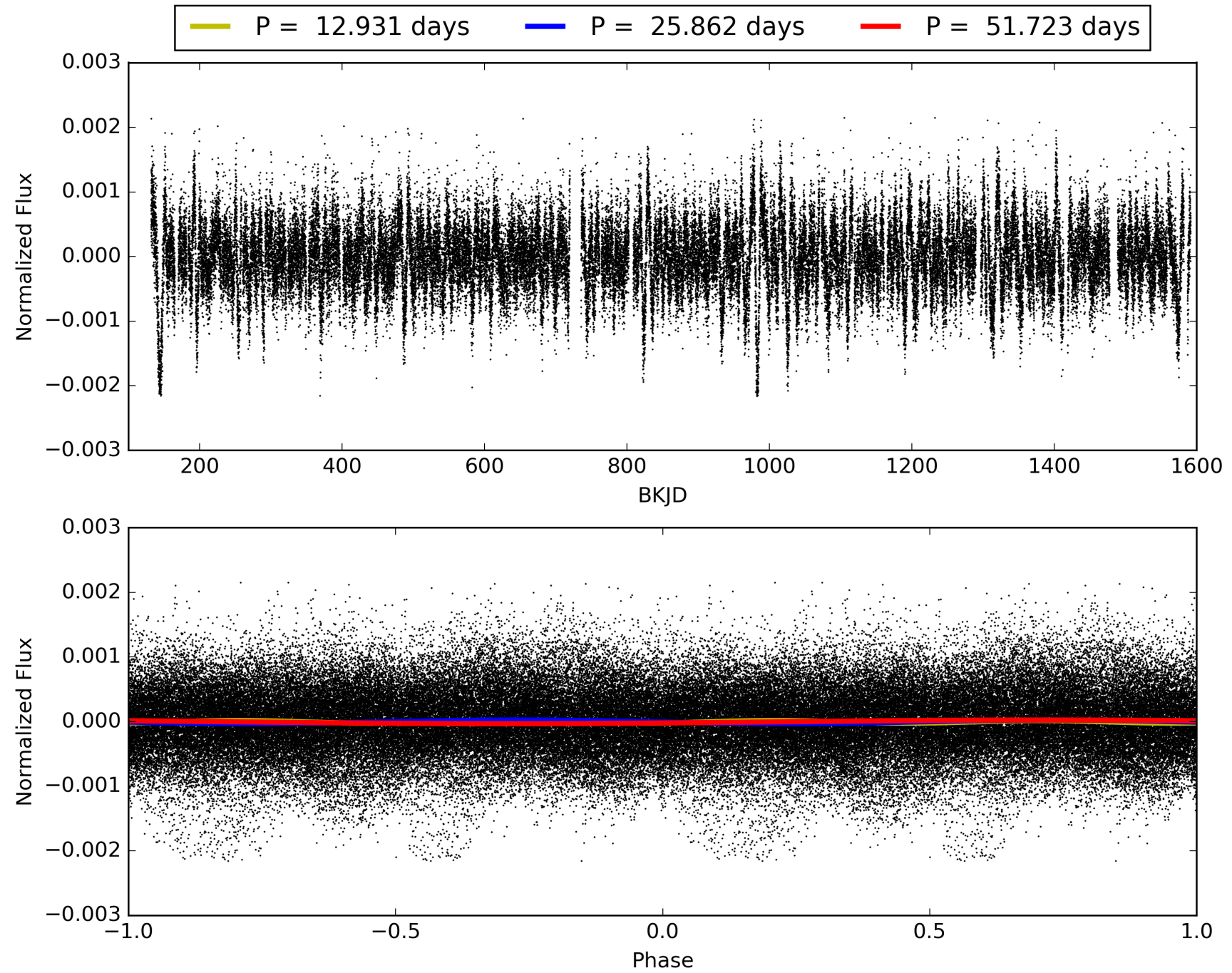
KIC: 5091479 Candidate: 1 of 1 Period: 25.862 d



TCE 005091479-01, PDC Light Curves

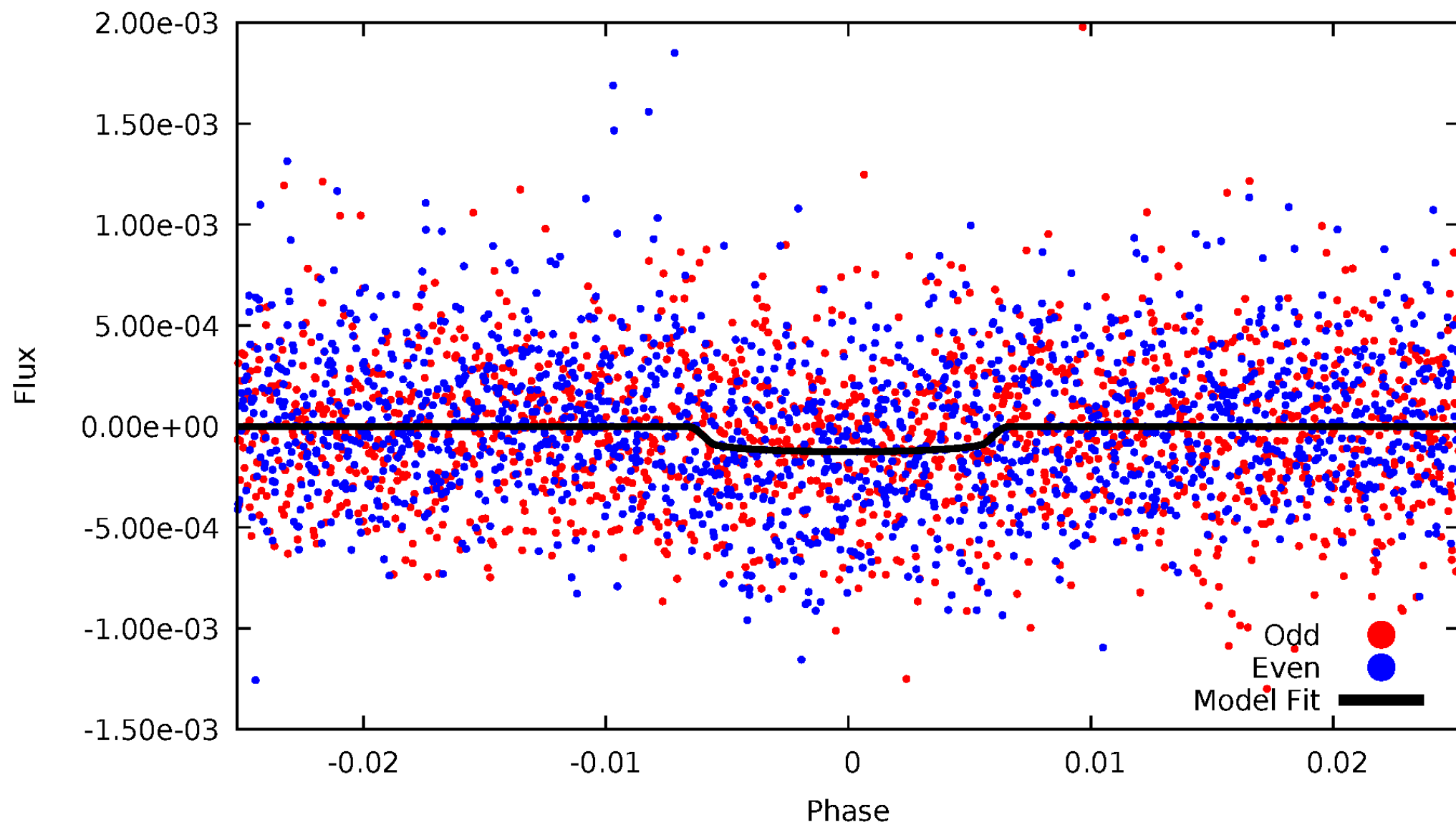


TCE 005091479-01



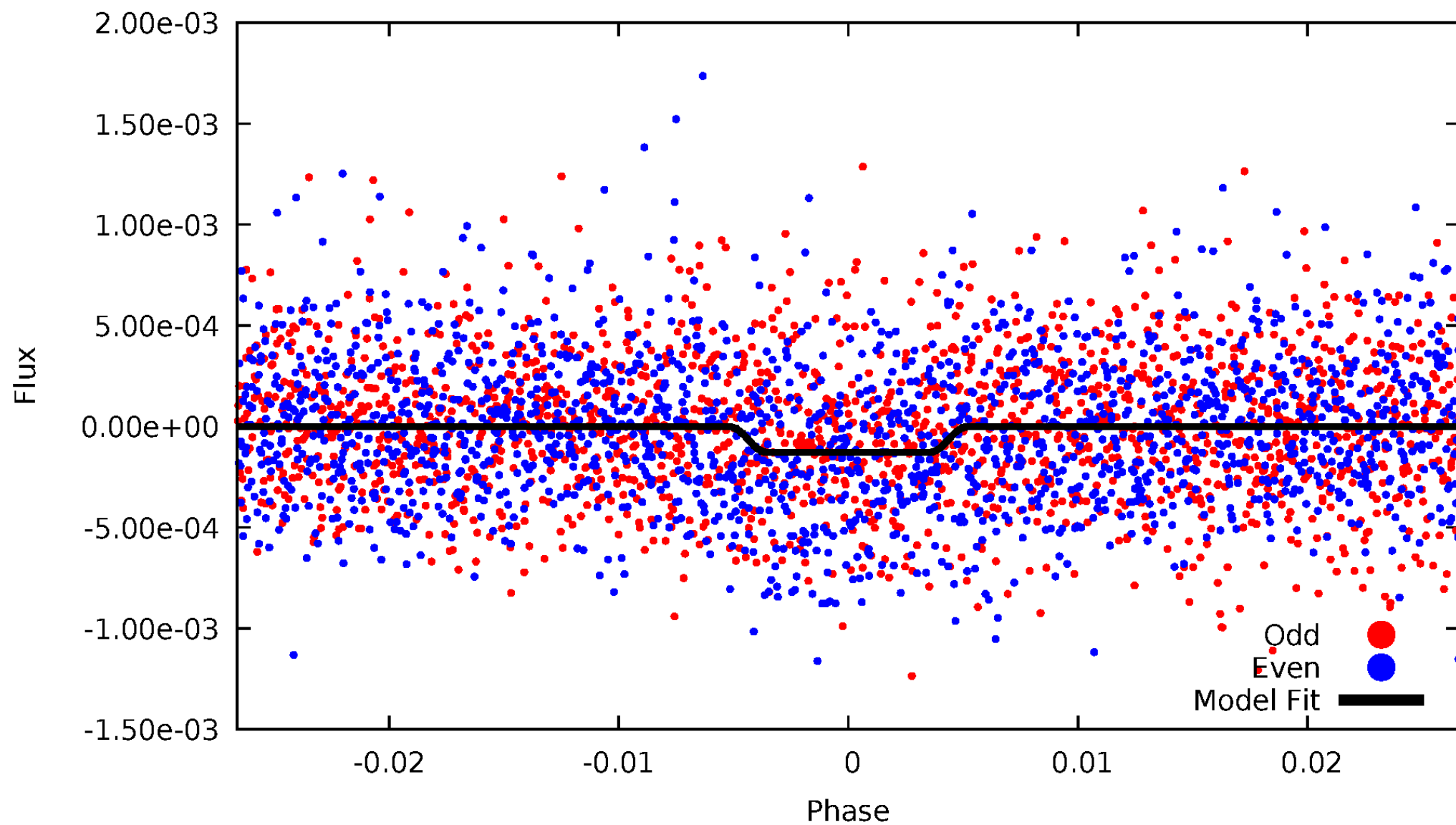
DV Odd/Even

TCE 005091479-01



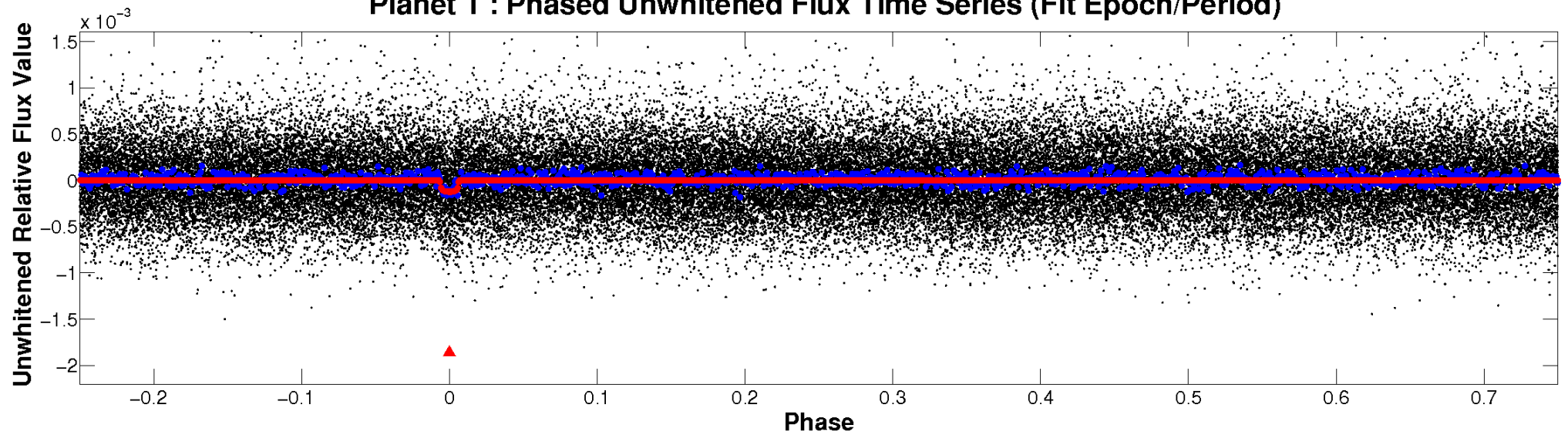
ALT Odd/Even

TCE 005091479-01

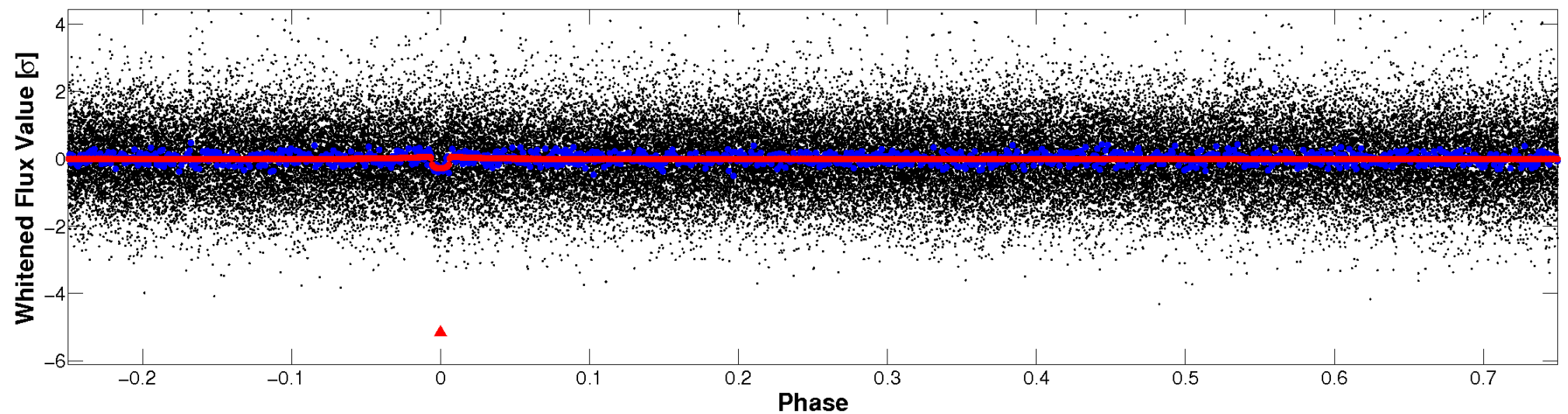


Non-Whitened Vs. Whitened Light Curve

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

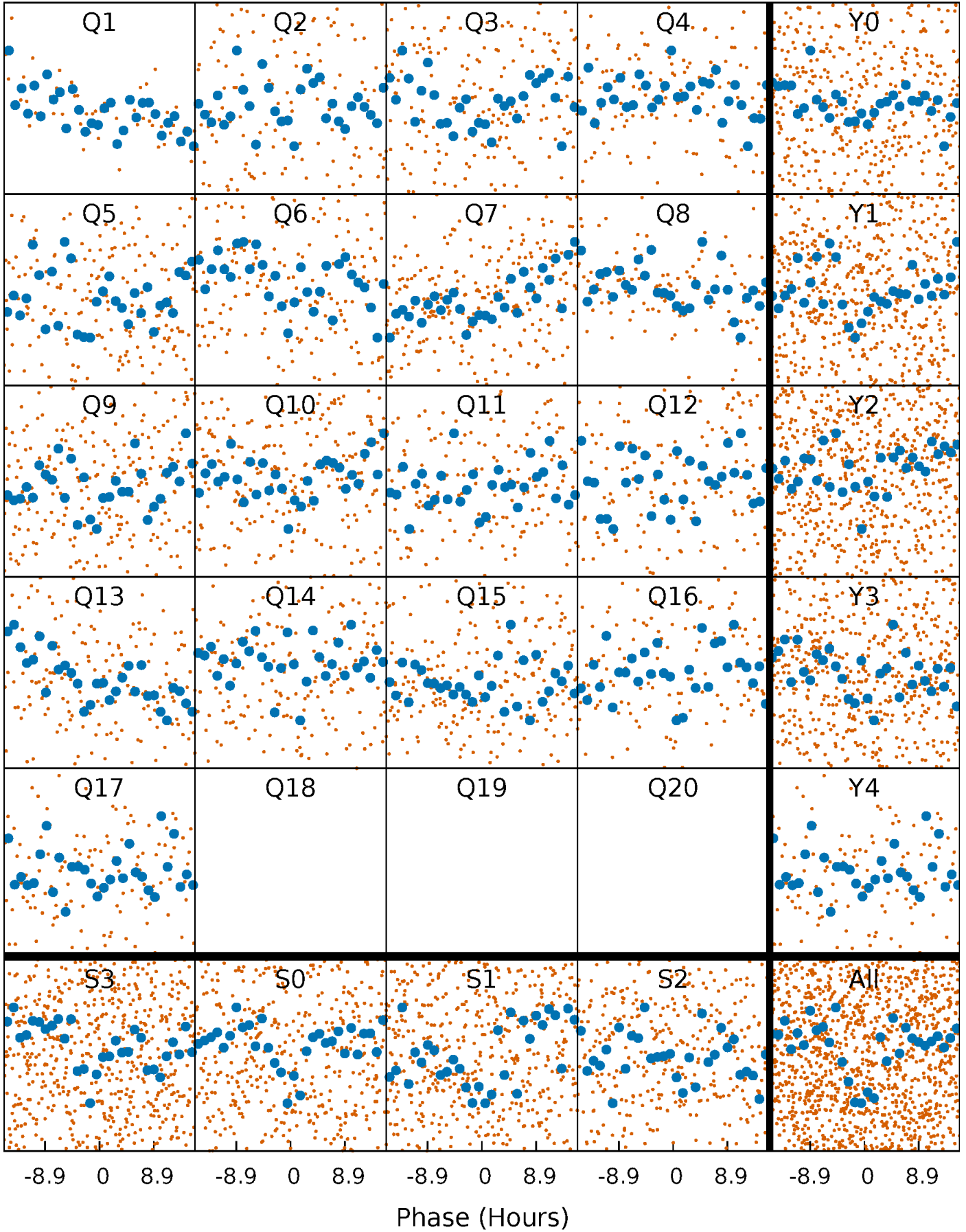


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



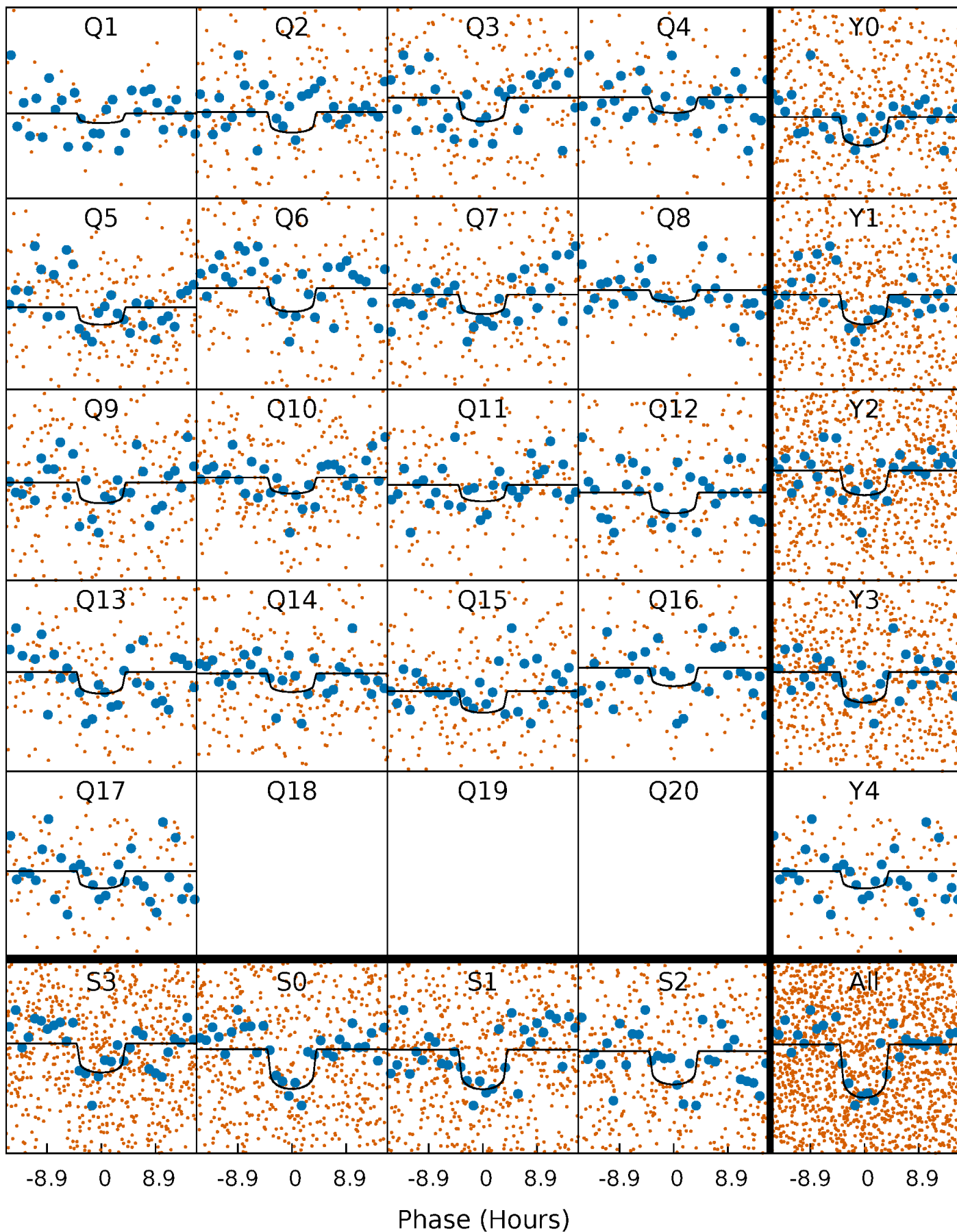
PDC Quarter-Phased Transit Curves

TCE 005091479-01 P= 25.861522 Days $T_0=140.203288$ (BKJD)



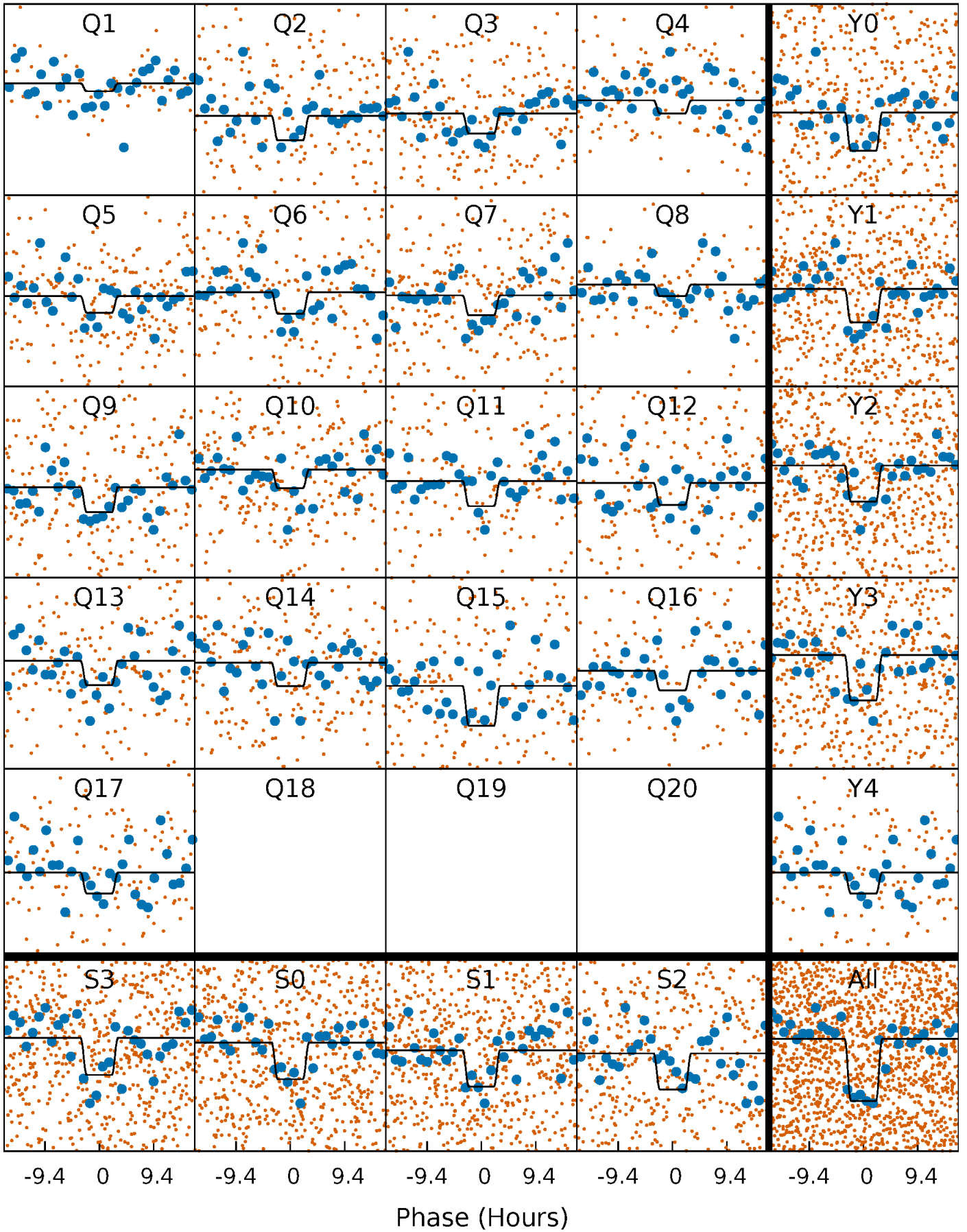
DV Quarter-Phased Transit Curves

TCE 005091479-01 P= 25.861522 Days $T_0=140.203288$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

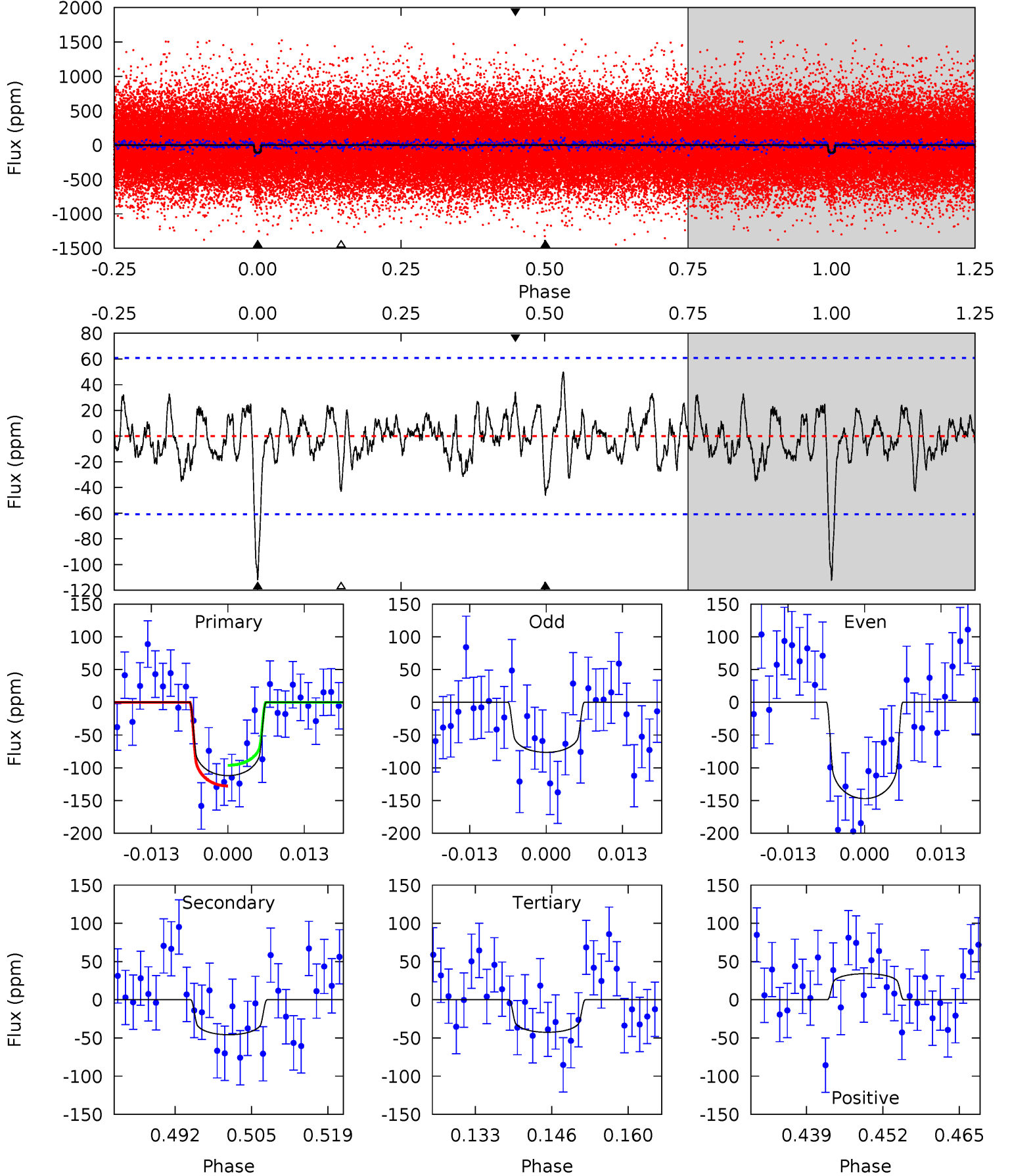
TCE 005091479-01 P= 25.862143 Days $T_0=140.174441$ (BKJD)



DV Model-Shift Uniqueness Test

005091479-01, P = 25.861522 Days, E = 114.341766 Days

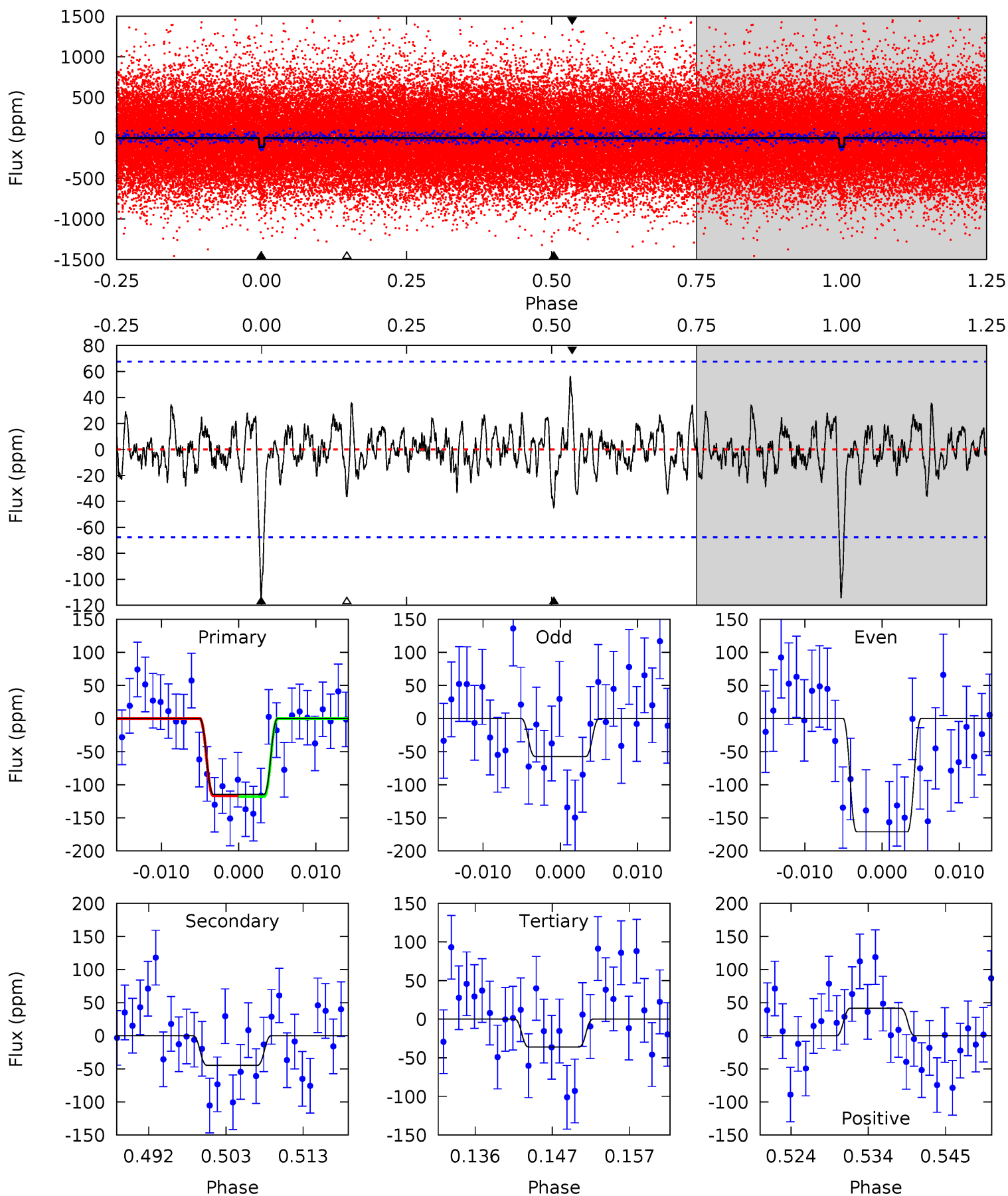
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.16	3.75	3.48	2.79	4.97	2.48	1.15	5.68	6.37	0.26	0.96	2.90	1.09	0.31	1.30



Alt Model-Shift Uniqueness Test

005091479-01, P = 25.862143 Days, E = 114.312298 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.50	3.32	2.67	3.08	5.02	2.56	0.97	5.83	5.42	0.65	0.24	4.23	1.14	0.33	0.06



Stellar Parameters For KIC 005091479

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6067^{+164}_{-201}	$4.524^{+0.052}_{-0.208}$	$-0.380^{+0.300}_{-0.300}$	$0.884^{+0.260}_{-0.087}$	$0.954^{+0.106}_{-0.118}$	$1.943^{+0.507}_{-0.967}$
	+3%/-3%	+1%/-5%	+79%/-79%	+29%/-10%	+11%/-12%	+26%/-50%
Source	PHO1	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 005091479-01 / KOI 7715.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-46 ± 12	$1.21^{+0.57}_{-0.52}$	876^{+57}_{-41}	4675^{+1393}_{-669}	472^{+1023}_{-270}
Alt.	-45 ± 13	$1.14^{+0.60}_{-0.50}$	872^{+59}_{-38}	4688^{+1608}_{-654}	494^{+1123}_{-284}

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

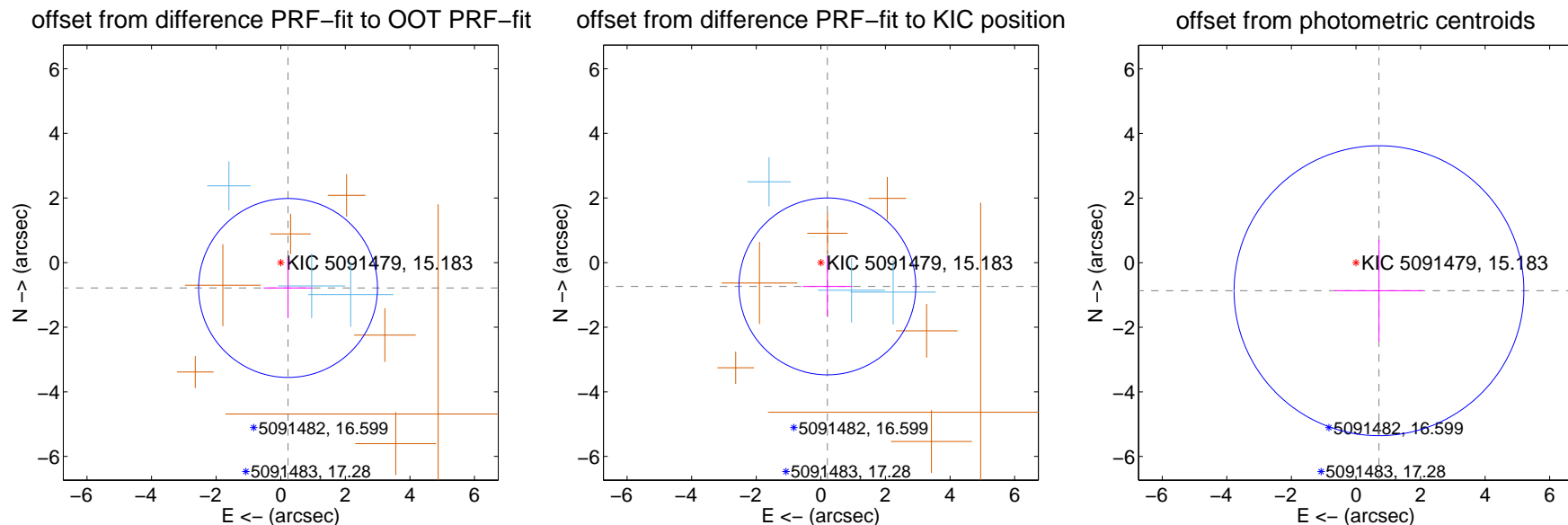
DV Centroid Data

Supplemental centroid analysis for 005091479-01. Kepler magnitude: 15.18. Transit SNR 6.95

There are 3 quarters with good PRF difference image offsets

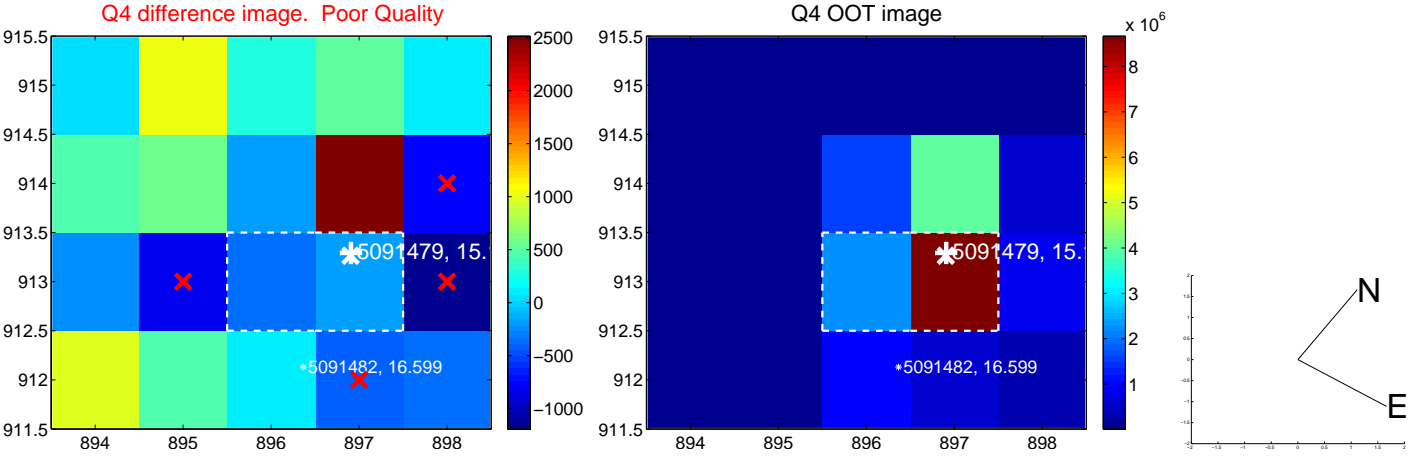
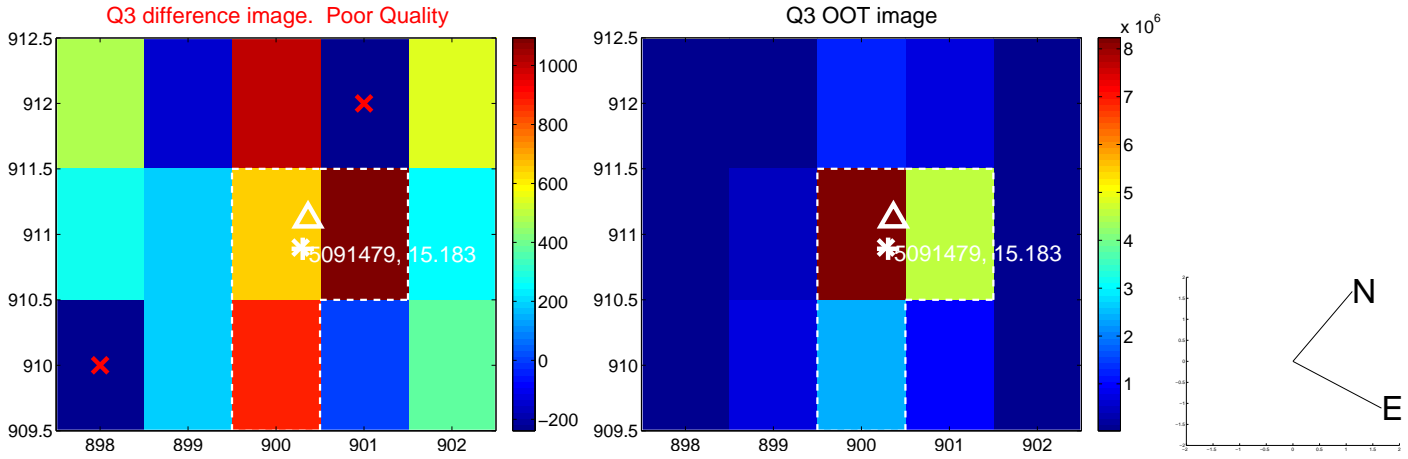
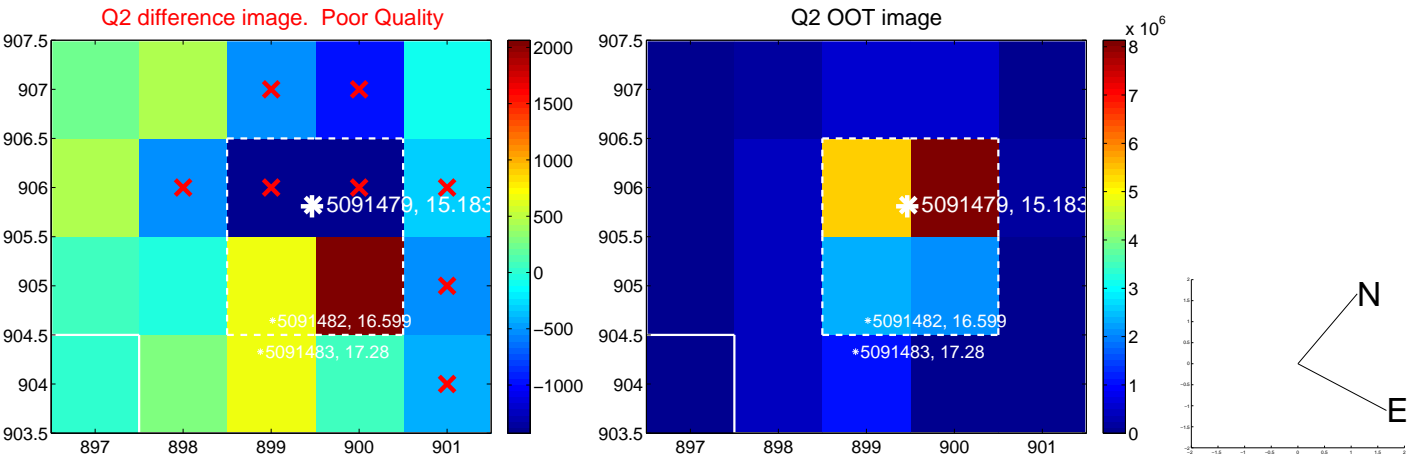
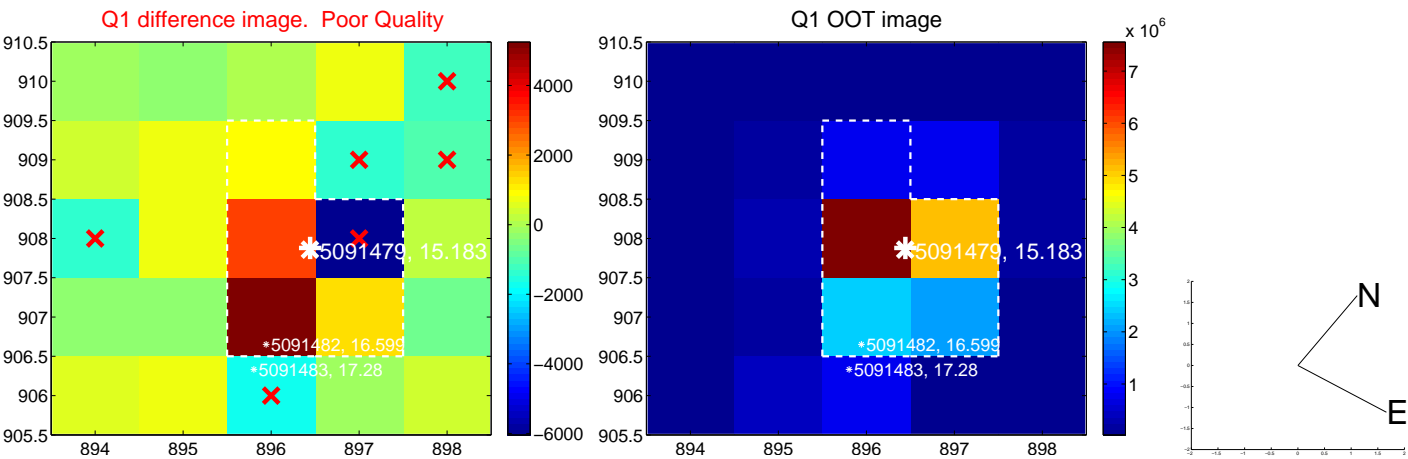
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.817 ± 0.923	0.89	-0.226 ± 0.760	-0.785 ± 0.936
PRF-fit source offset from KIC position	0.764 ± 0.913	0.84	-0.202 ± 0.765	-0.737 ± 0.923
photometric centroid source offset	1.12 ± 1.50	0.75	-0.71 ± 1.37	-0.87 ± 1.58

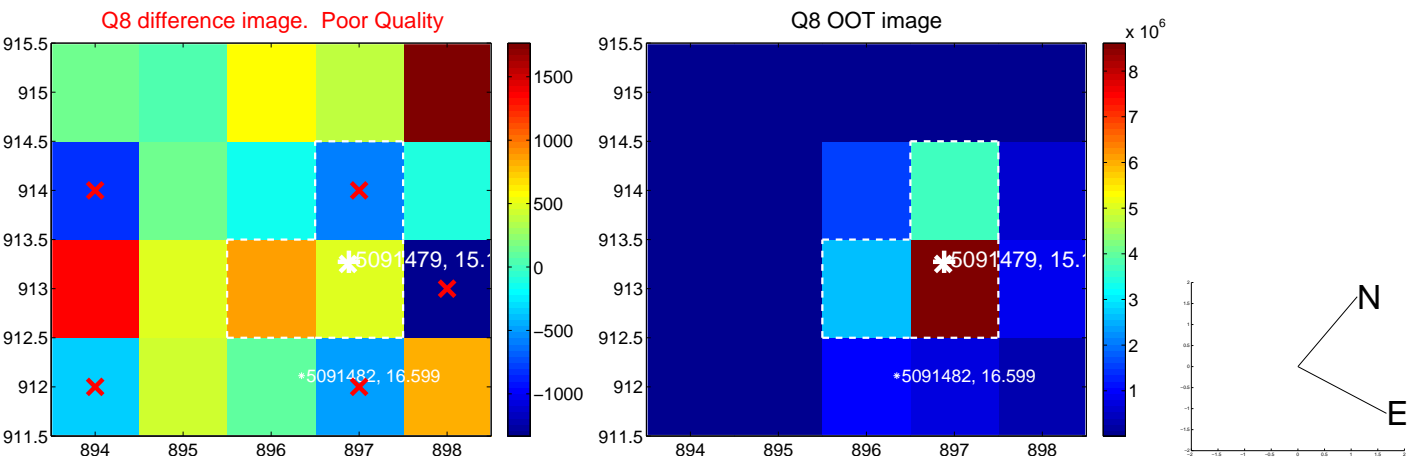
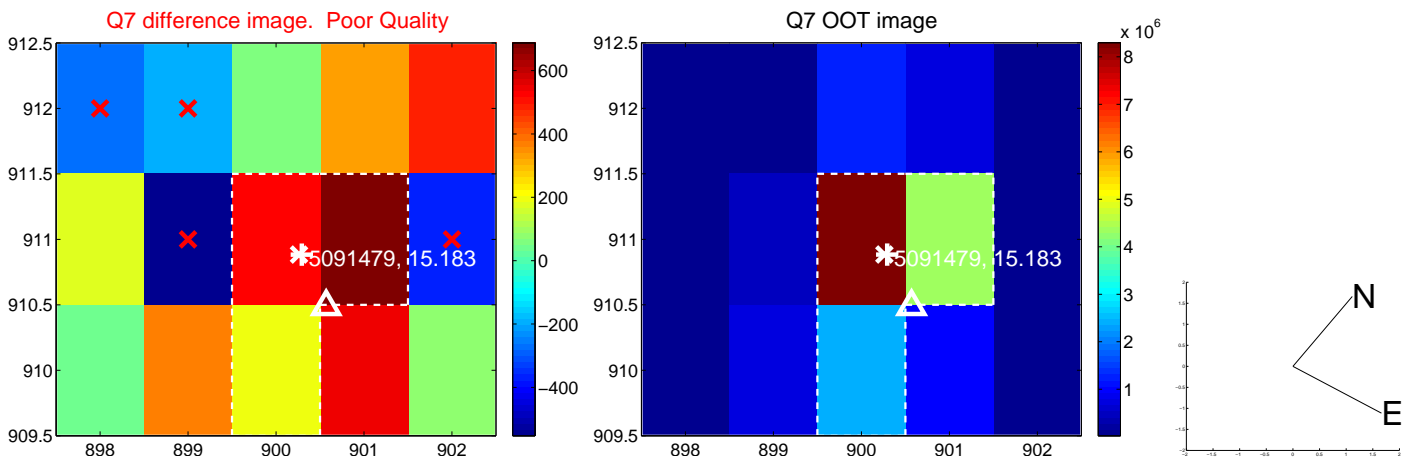
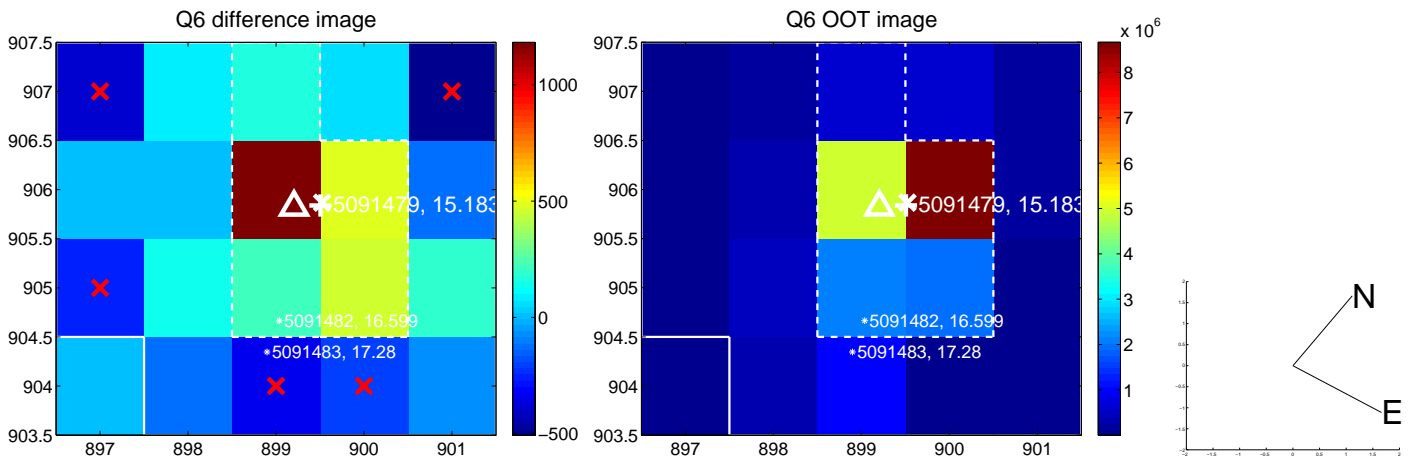
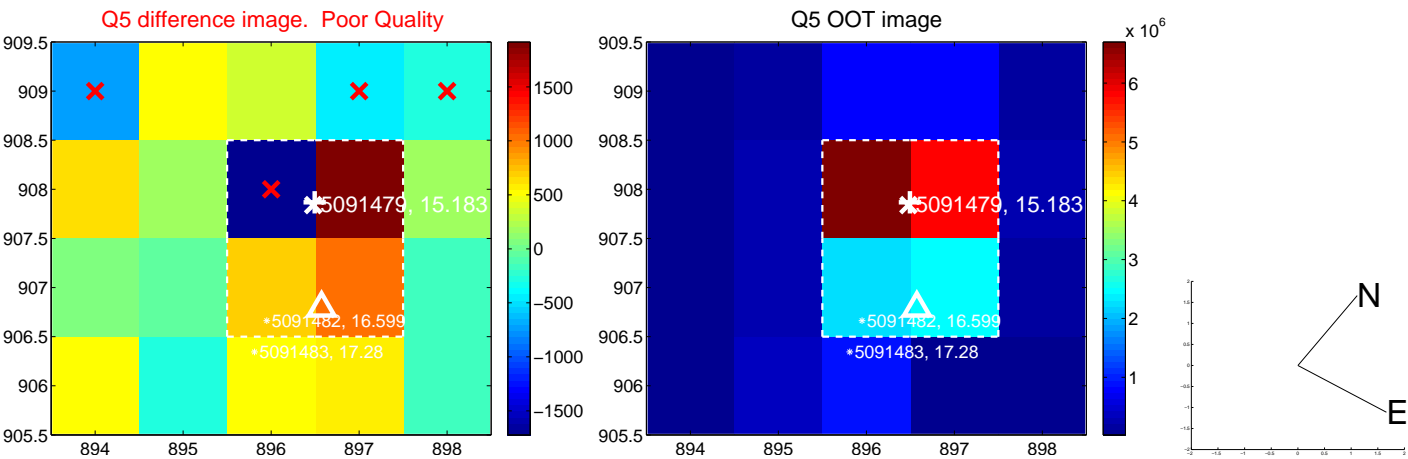


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

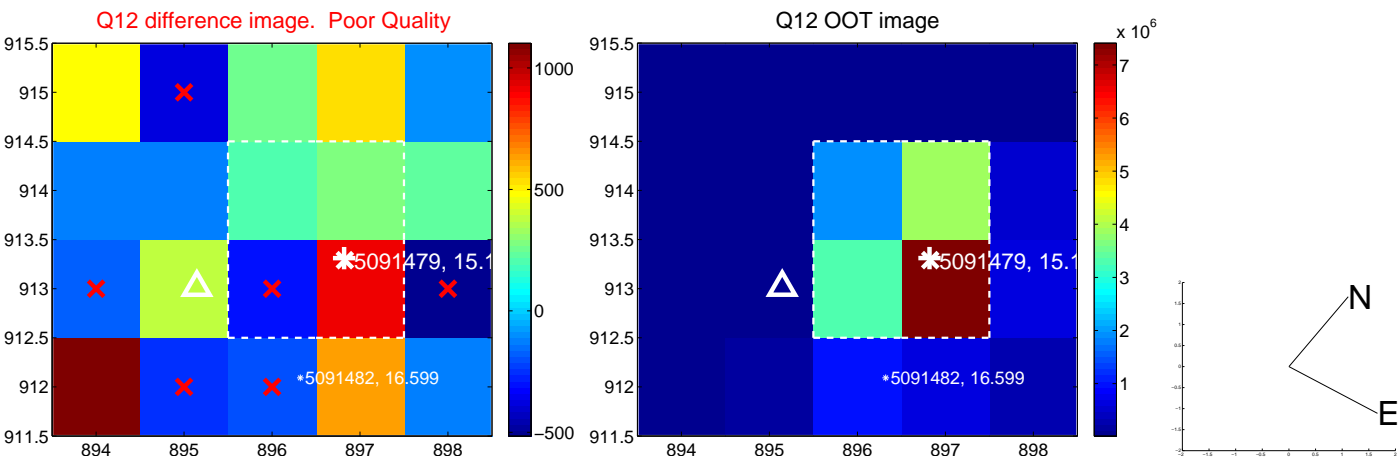
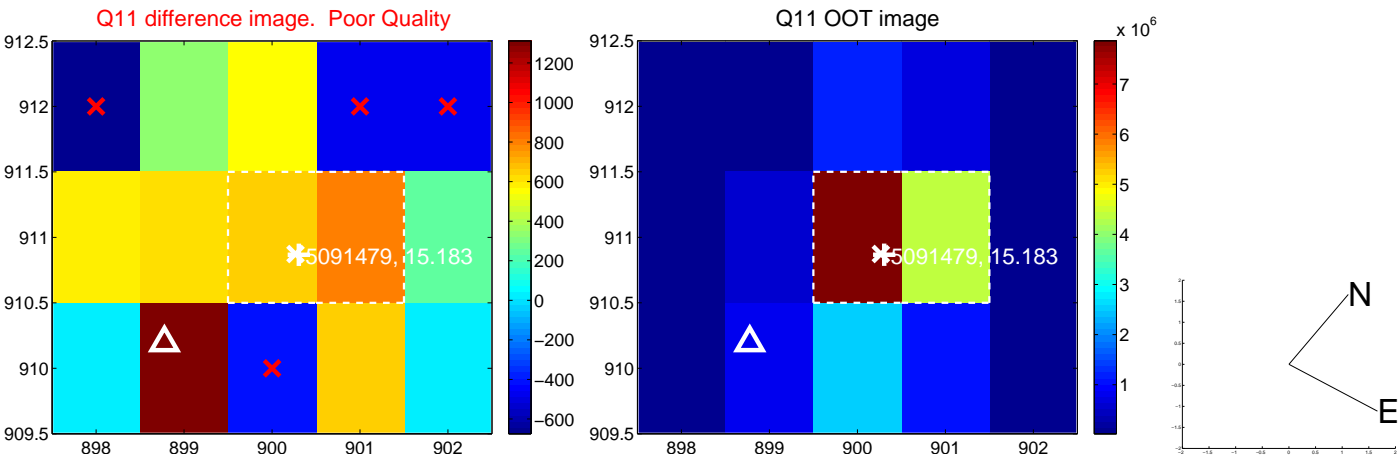
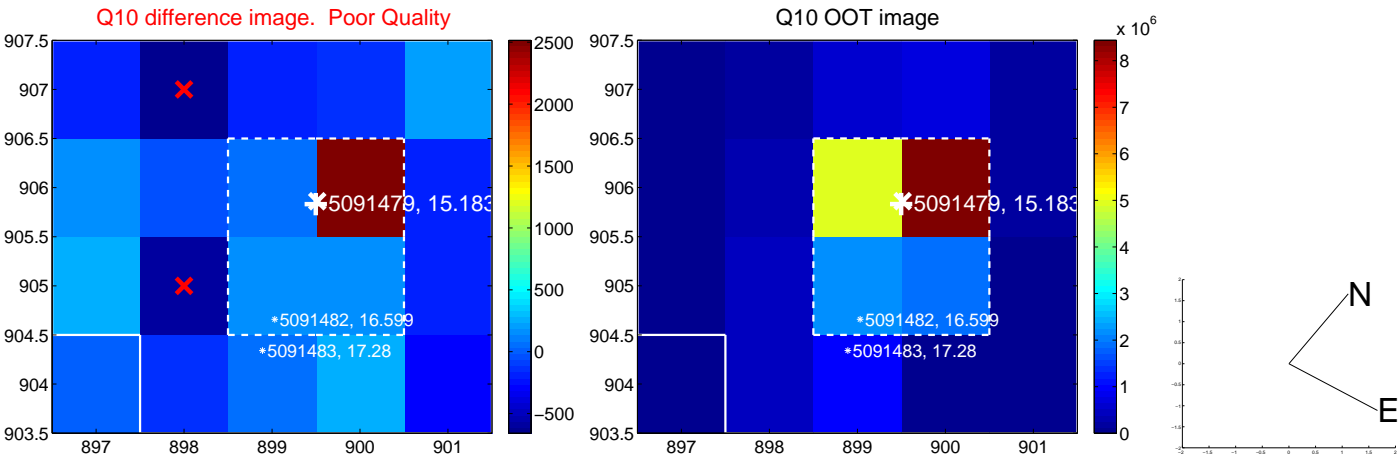
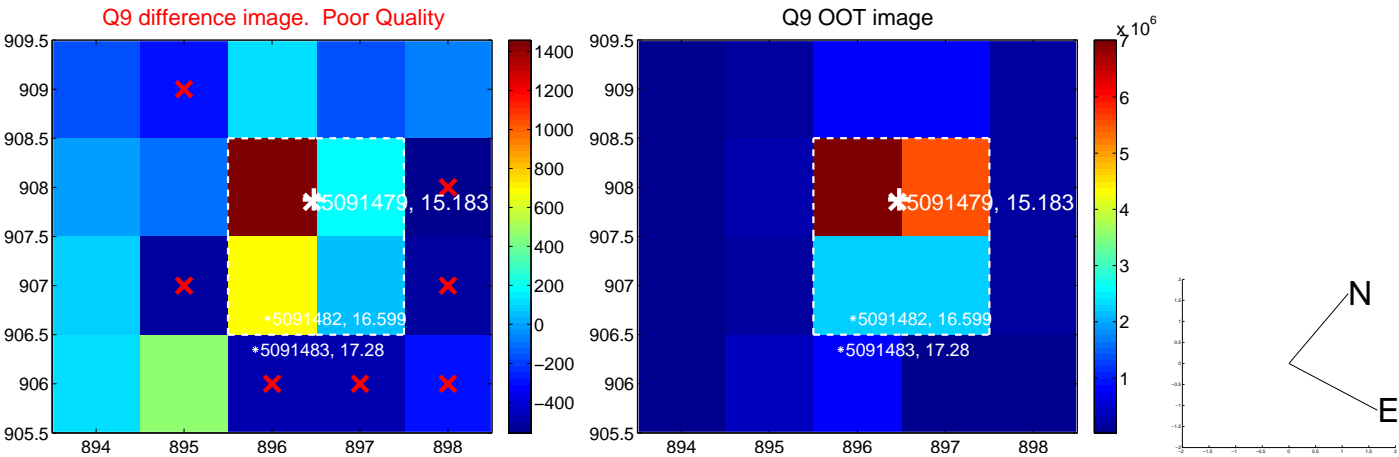
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



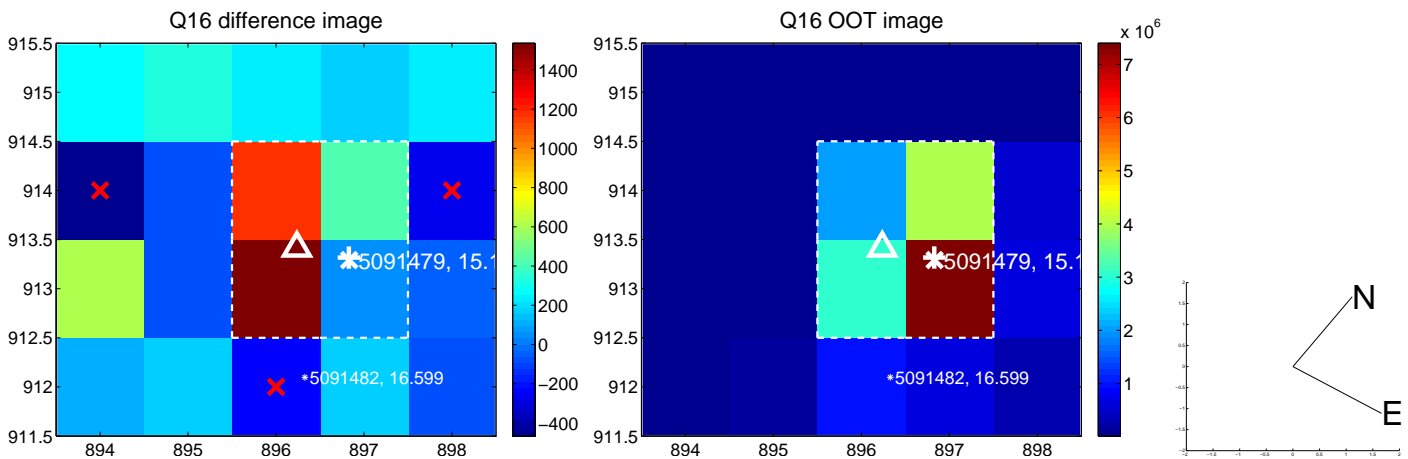
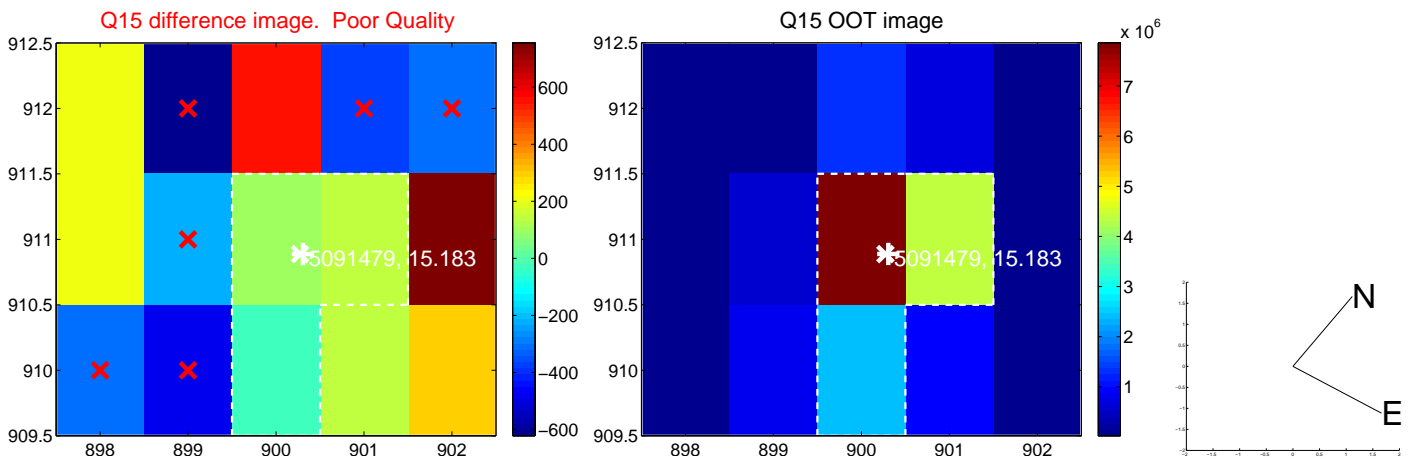
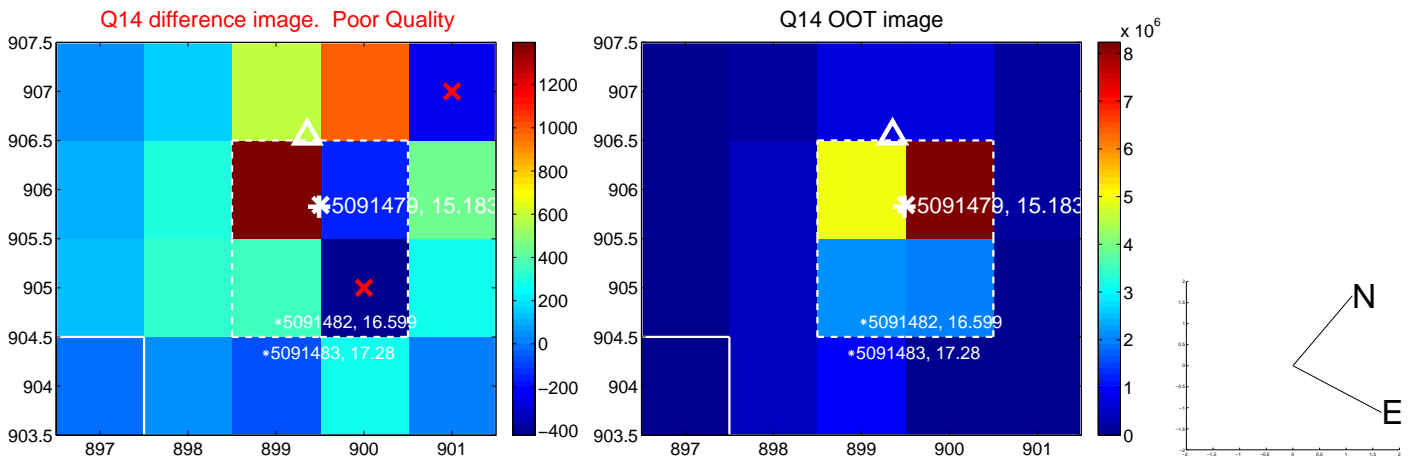
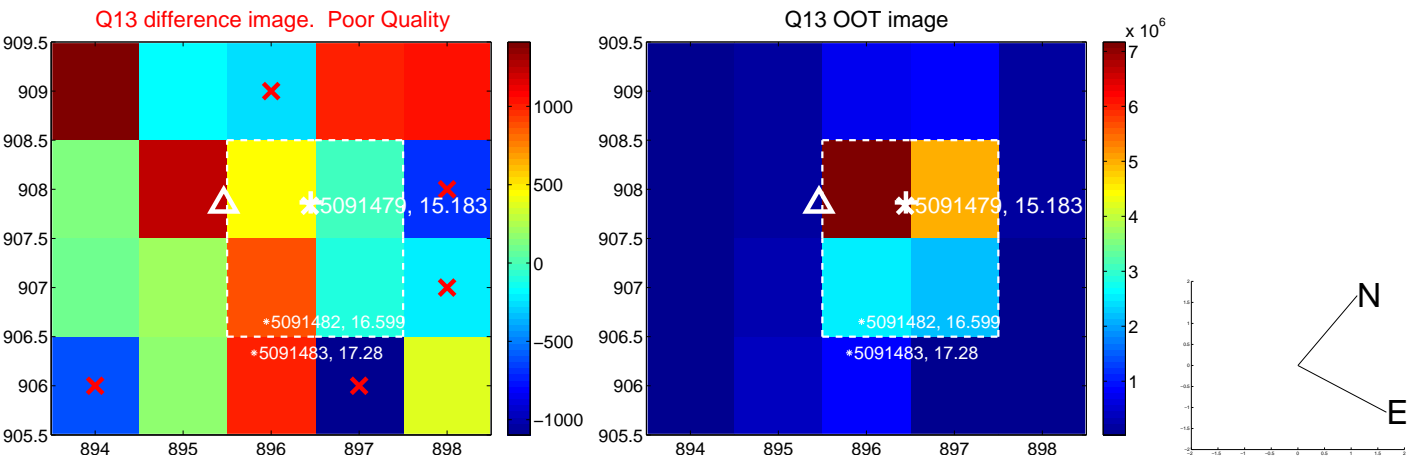
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

