

KIC 011098975

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})
011098975-01	OBS	No	0.994998	132.343773	223.2	7.696	934.4	65.2	1.96	9842	3.41	48878.36

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011098975-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—LPP_ALT

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

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

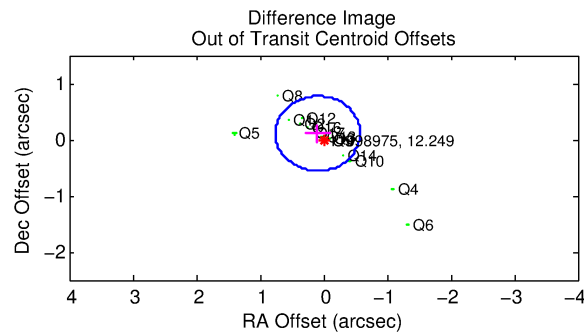
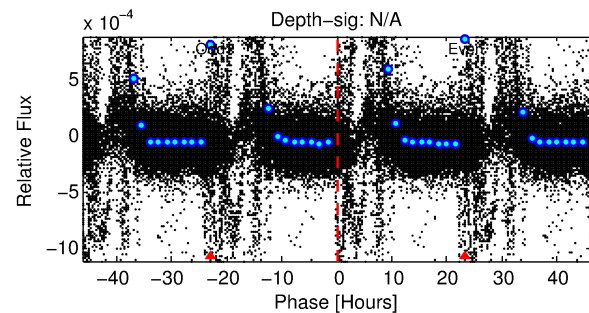
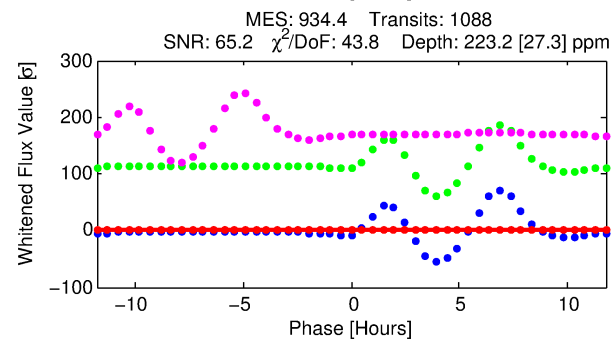
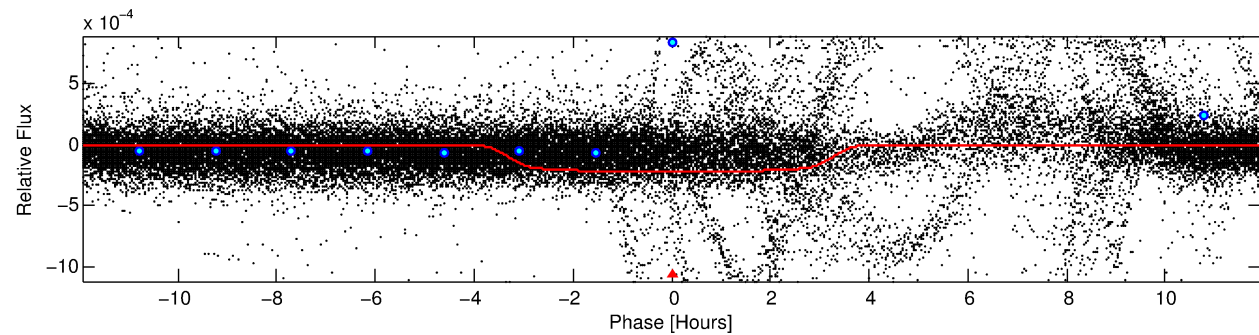
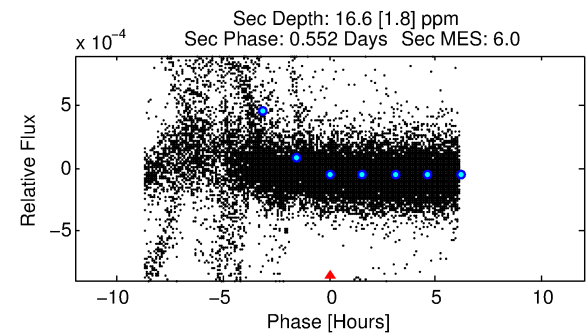
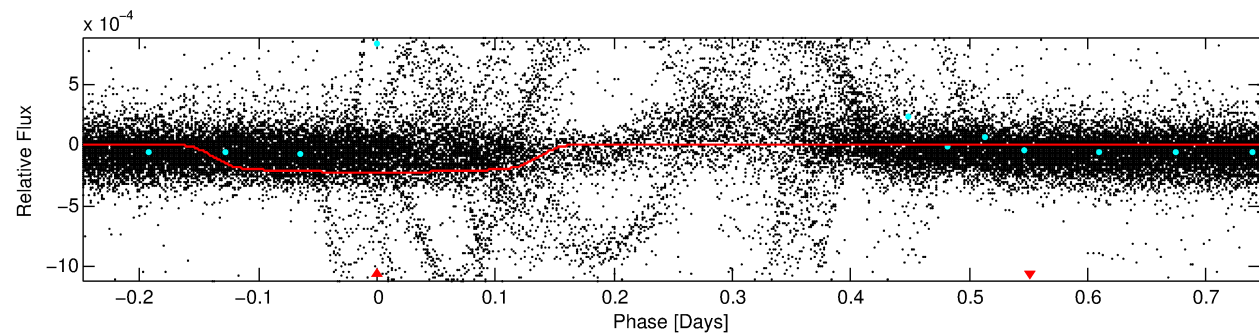
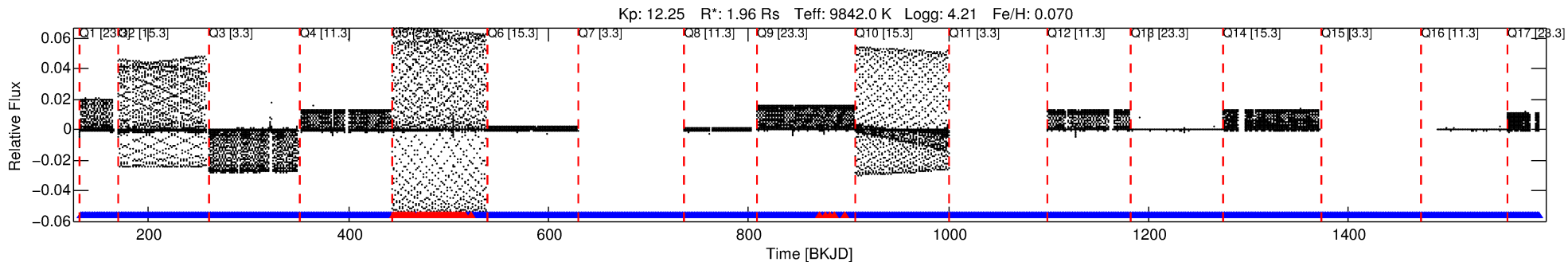
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011098975-01

No Significant Match Found

DV One-Page Summary

KIC: 11098975 Candidate: 1 of 1 Period: 0.995 d



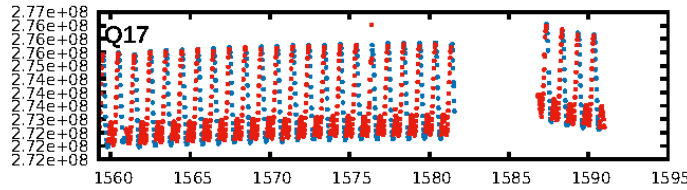
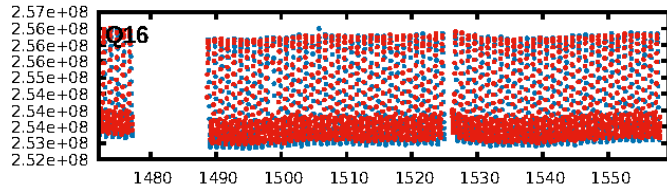
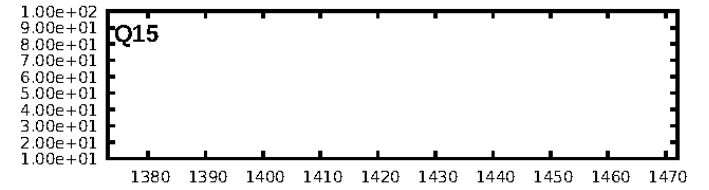
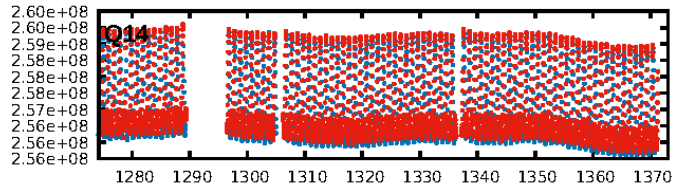
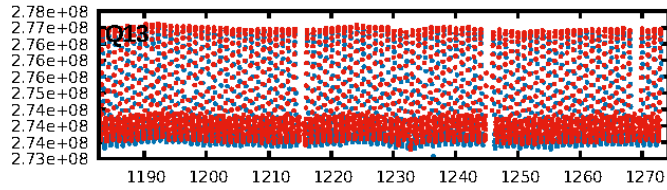
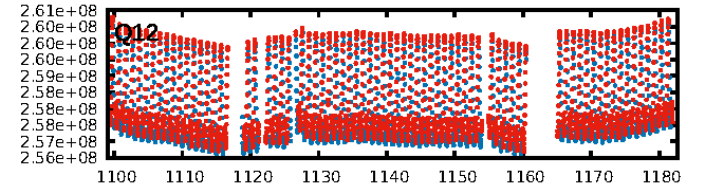
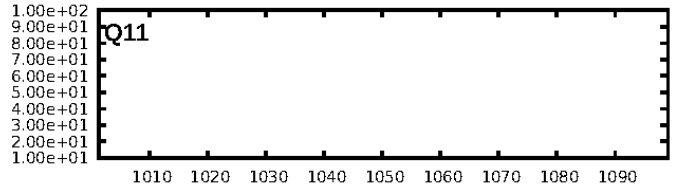
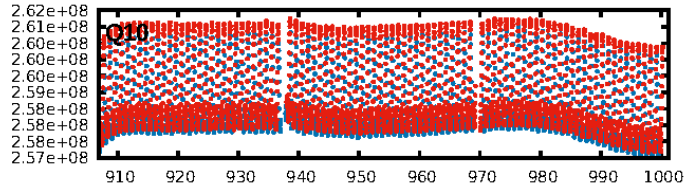
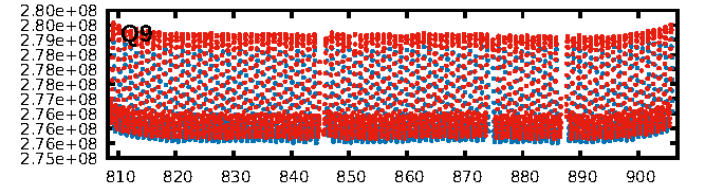
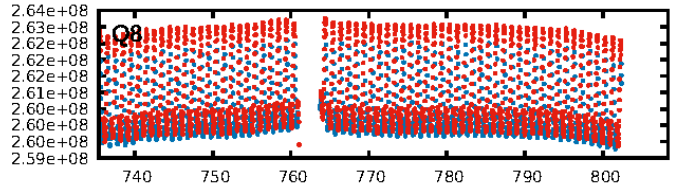
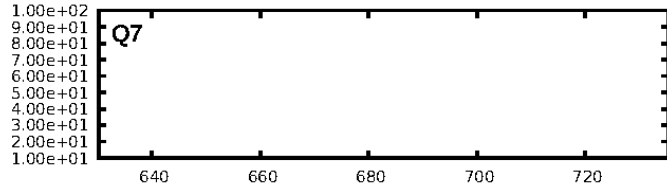
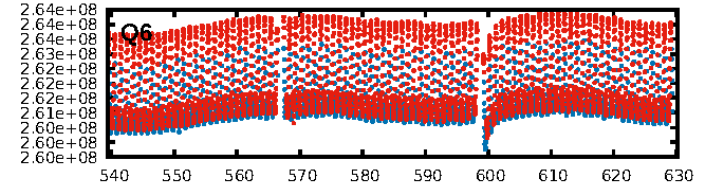
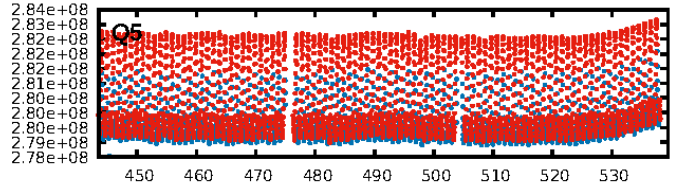
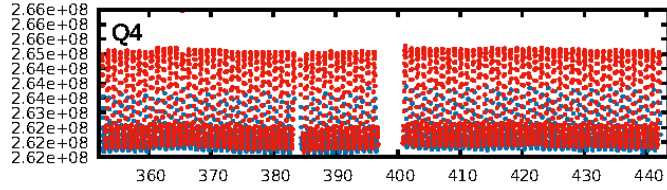
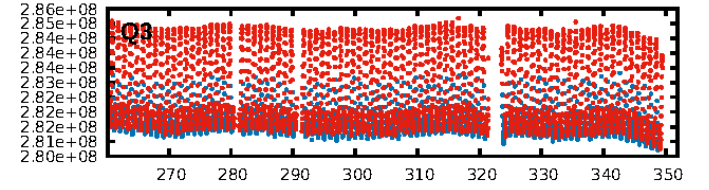
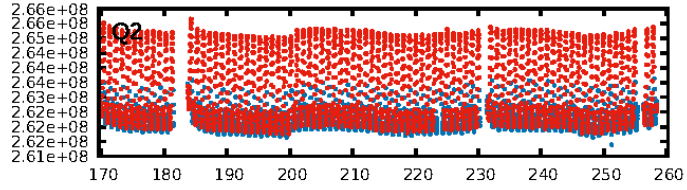
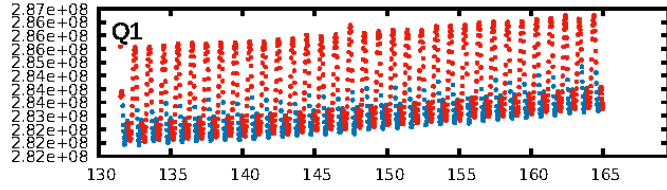
DV Fit Results:

Period = 0.99500 [0.00001] d
Epoch = 132.3438 [0.0042] BKJD
Rp/R* = 0.0159 [0.0011]
a/R* = 1.05 [0.02]
b = 0.92 [0.04]
Seff = 48878.36 [25883.95]
Teff = 3791 [502] K
Rp = 3.41 [1.61] Re
a = 0.0257 [0.0094] AU
Ag = 0.52 [0.27] [-1.74 σ]
Teffp = 4979 [313] K [2.01 σ]

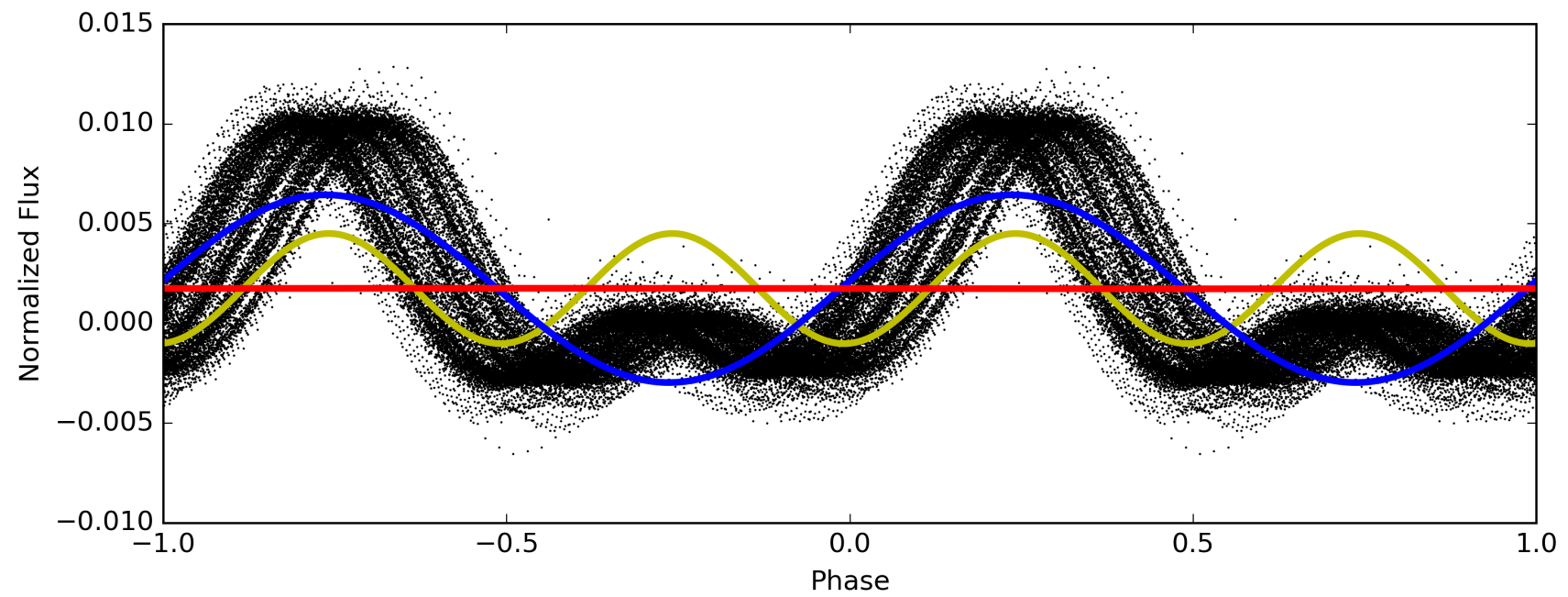
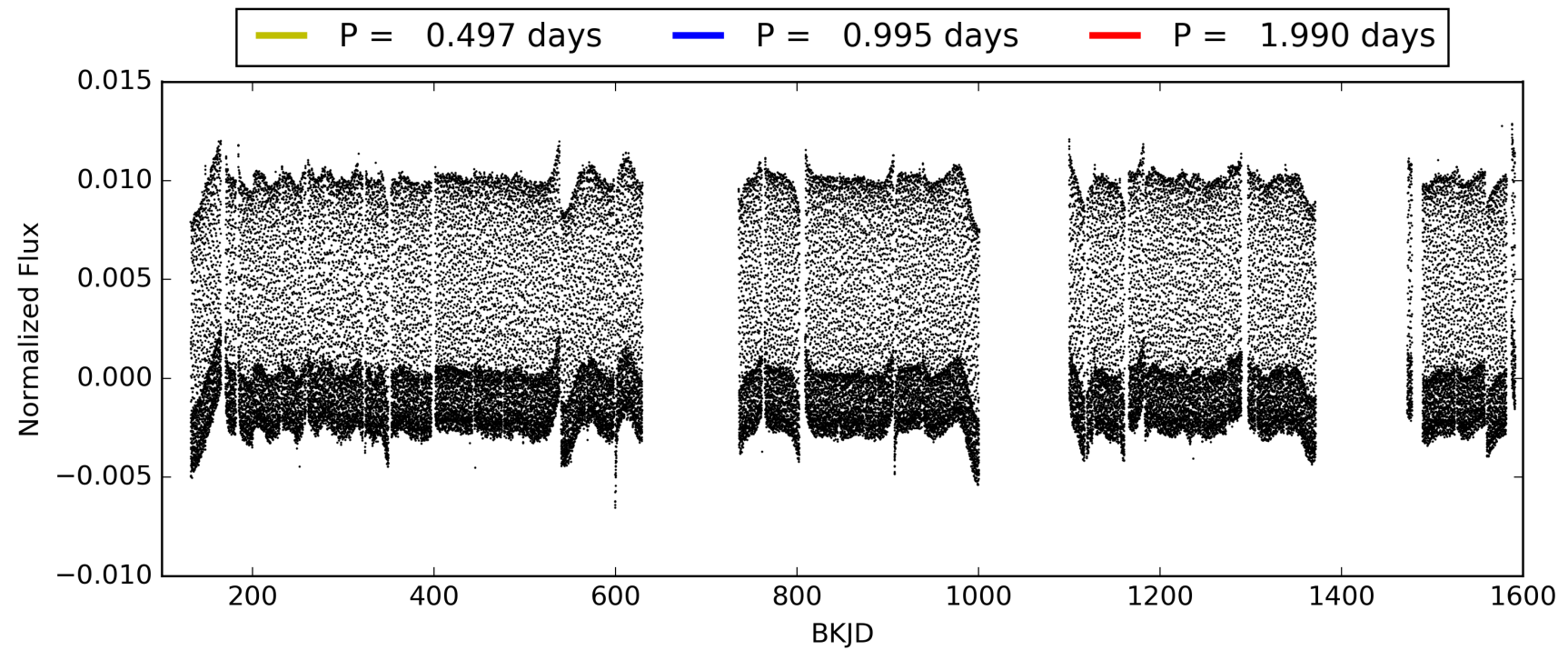
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.92 [949/1026]
GhostDiagnostic-chr: 1.165
Centroid-sig: 1.3%
Centroid-so: 0.059 arcsec [1.00 σ]
OotOffset-rm: 0.142 arcsec [0.64 σ]
KicOffset-rm: 0.122 arcsec [0.53 σ]
OotOffset-st: 4/1/4/5 [14]
KicOffset-st: 4/1/4/5 [14]
DiffImageQuality-fgm: 0.64 [9/14]
DiffImageOverlap-fno: 1.00 [14/14]

TCE 011098975-01, PDC Light Curves

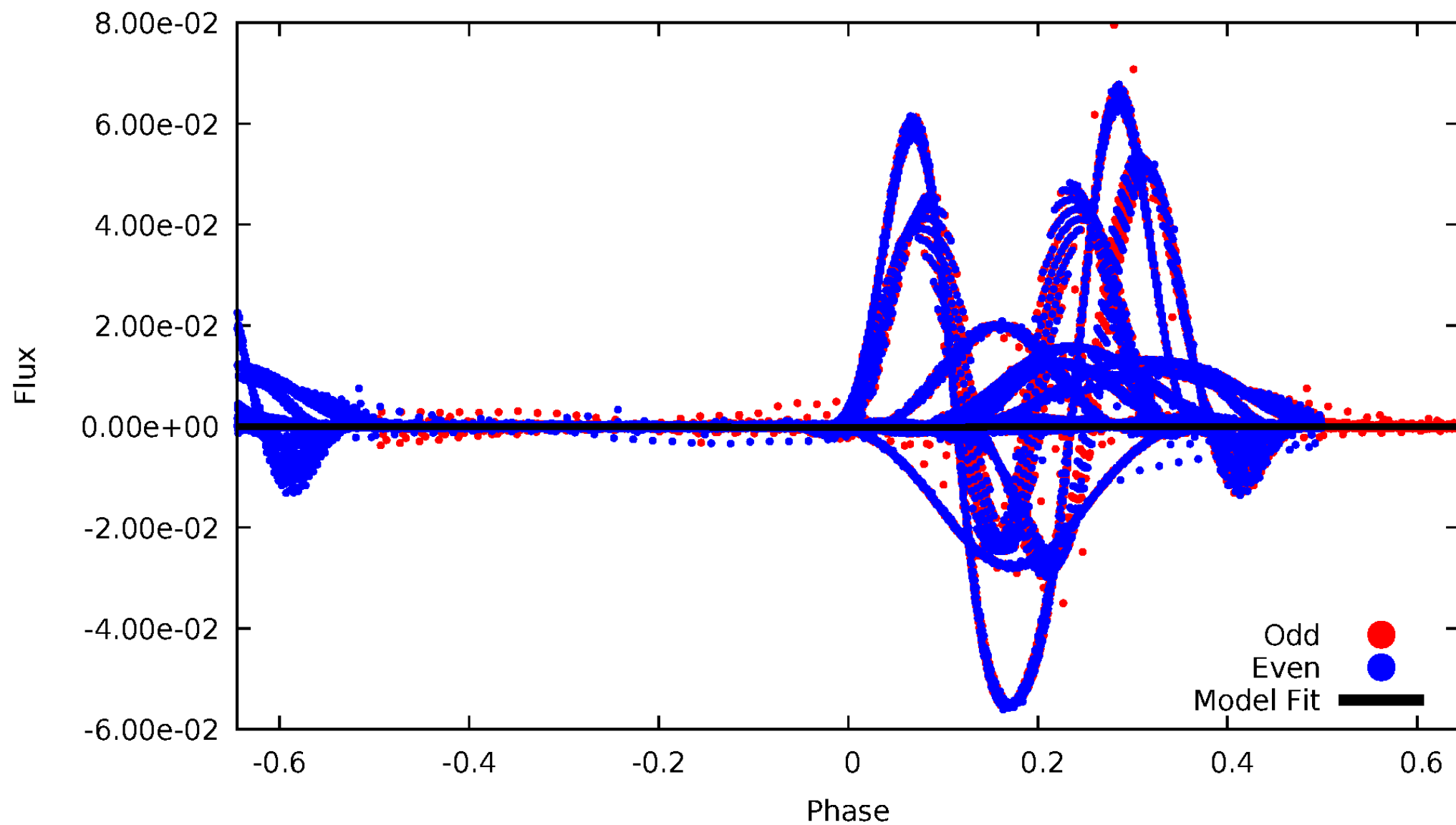


TCE 011098975-01



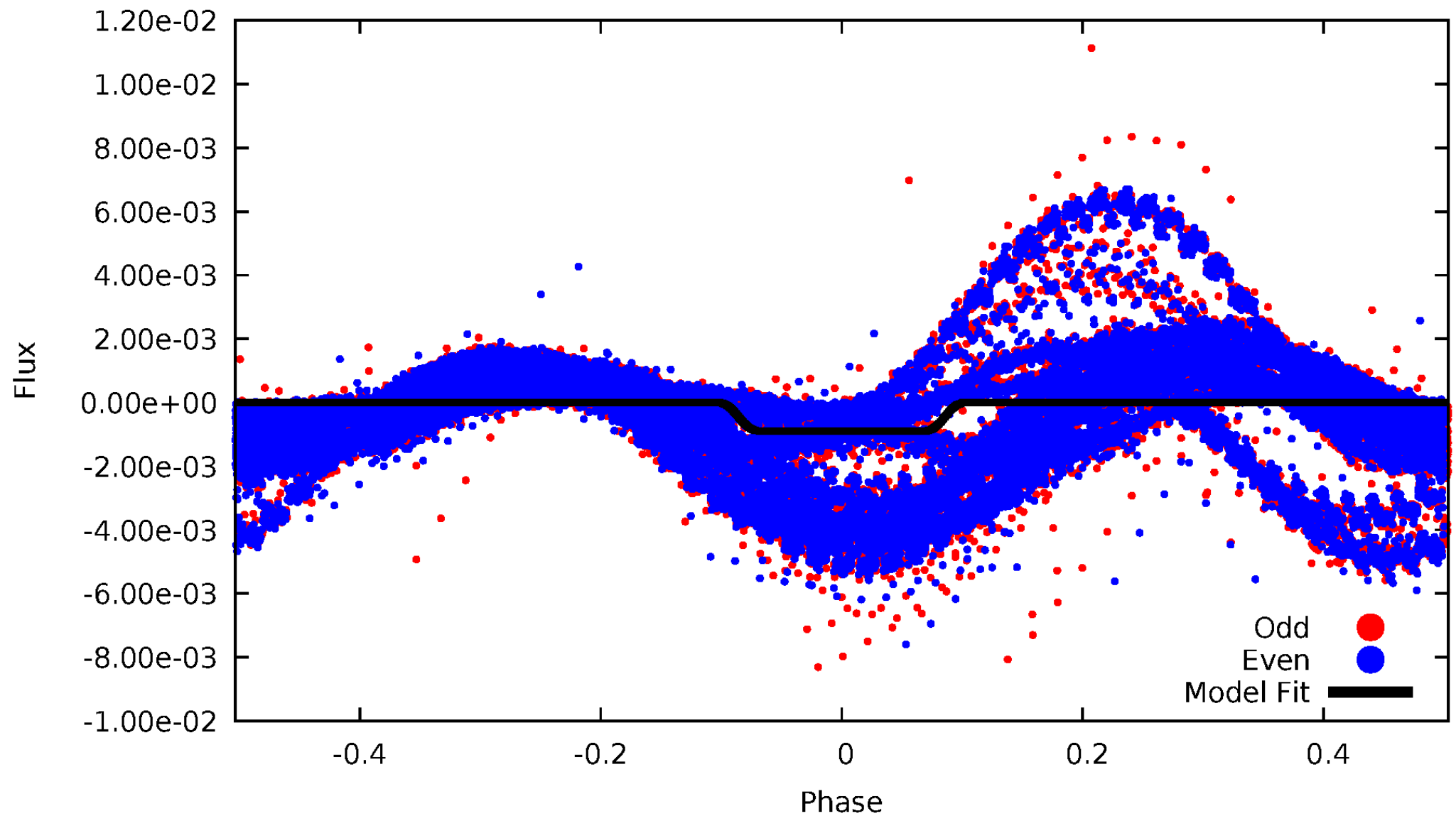
DV Odd/Even

TCE 011098975-01



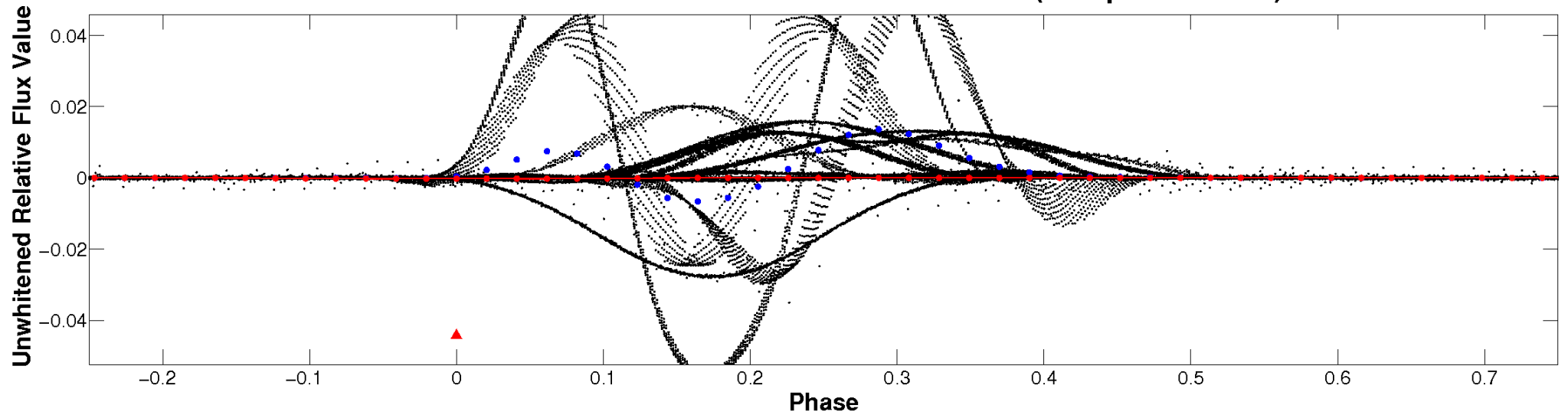
ALT Odd/Even

TCE 011098975-01

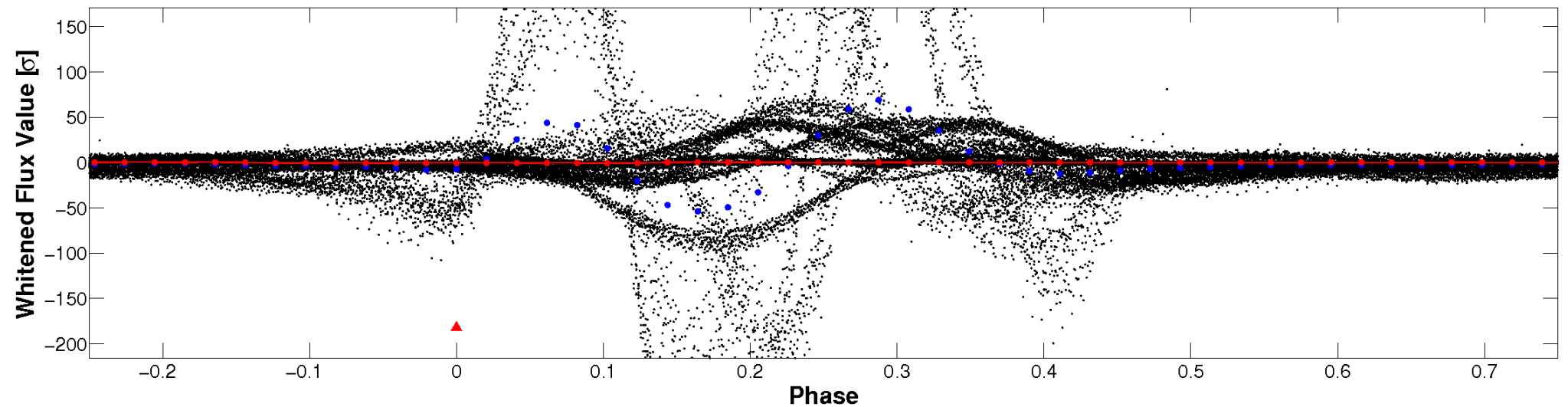


Non-Whitened Vs. Whitened Light Curve

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

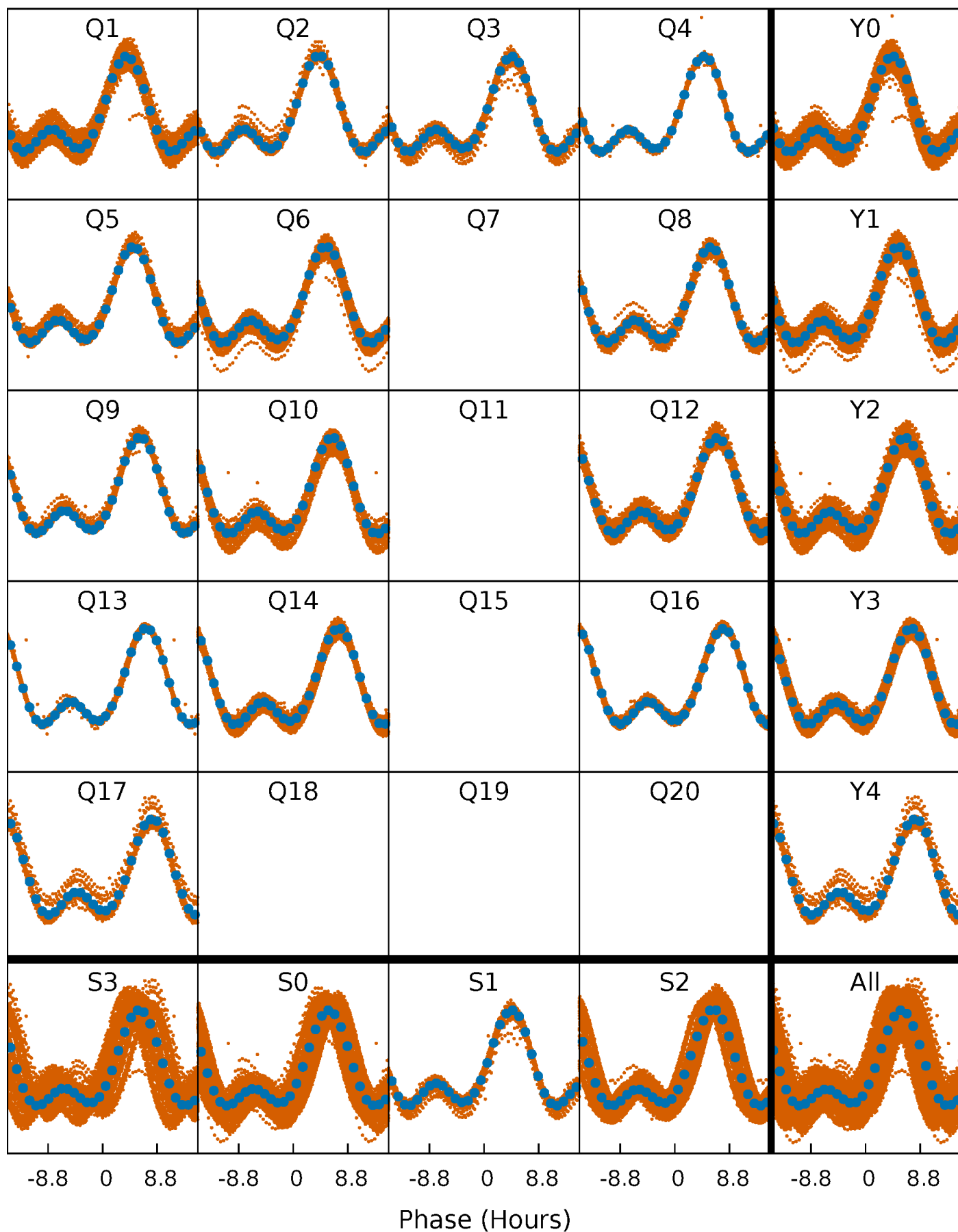


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



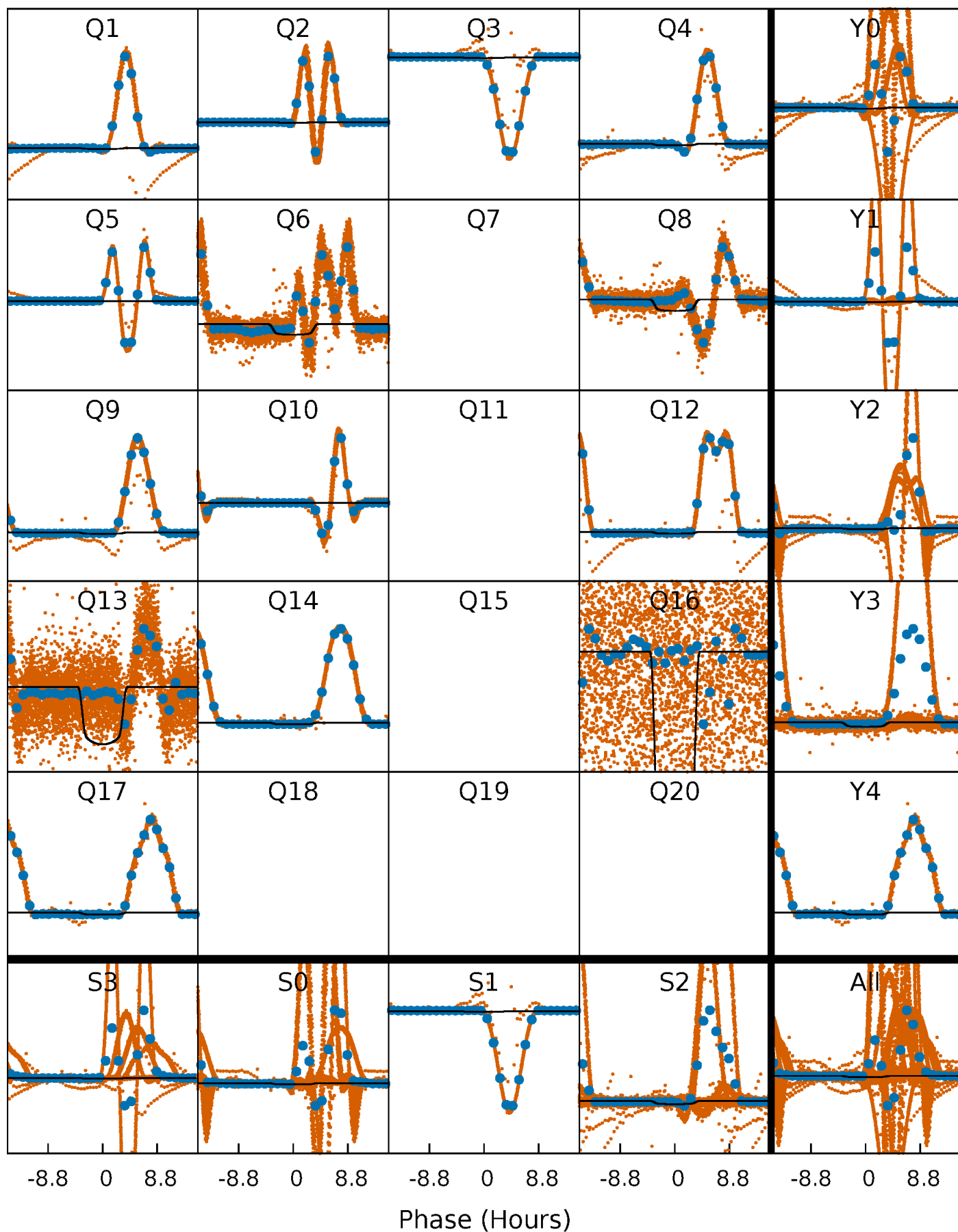
PDC Quarter-Phased Transit Curves

TCE 011098975-01 P= 0.994998 Days $T_0=132.343773$ (BKJD)



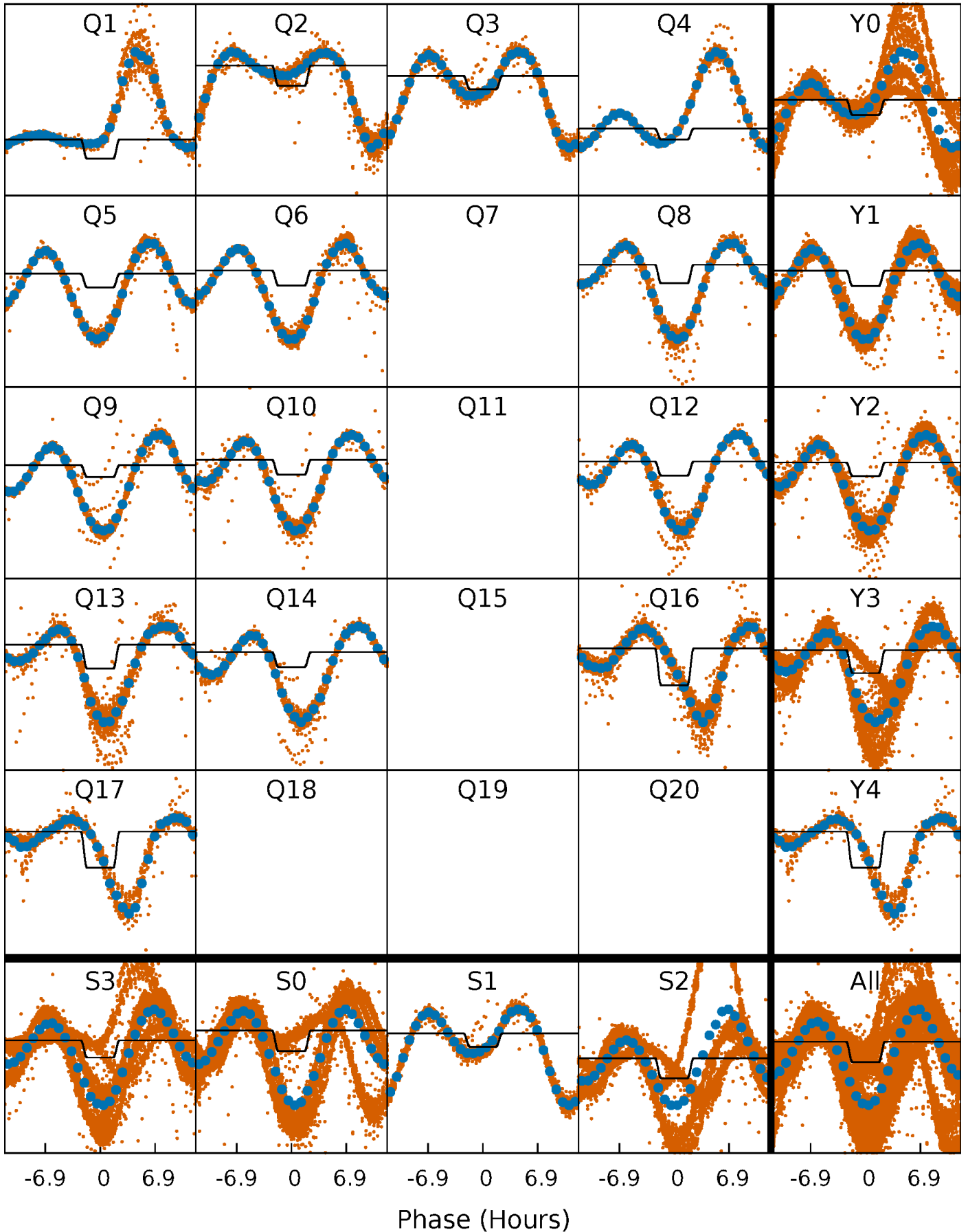
DV Quarter-Phased Transit Curves

TCE 011098975-01 P= 0.994998 Days $T_0=132.343773$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

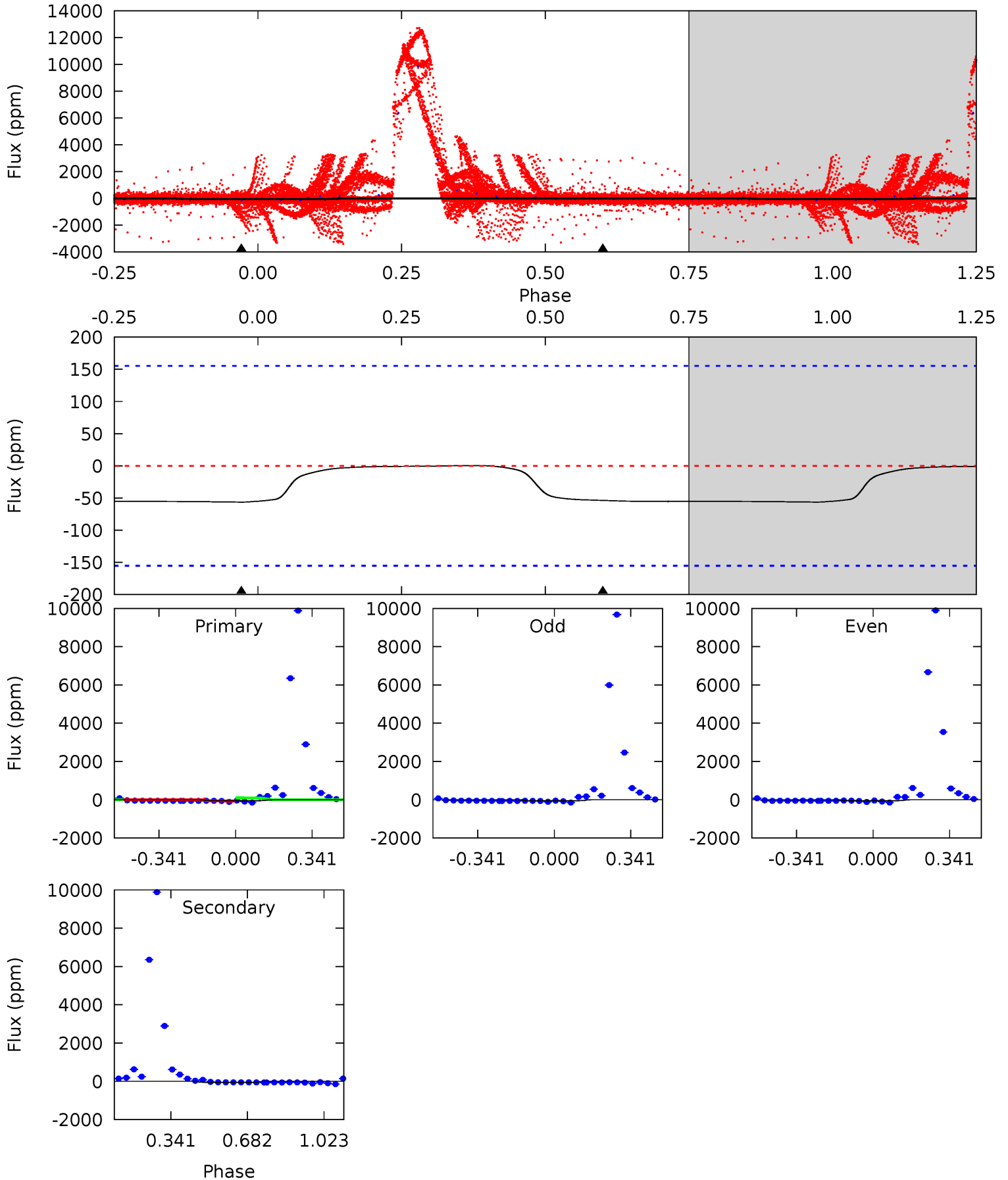
TCE 011098975-01 P= 0.995003 Days $T_0=132.315388$ (BKJD)



DV Model-Shift Uniqueness Test

011098975-01, P = 0.994998 Days, E = 131.348775 Days

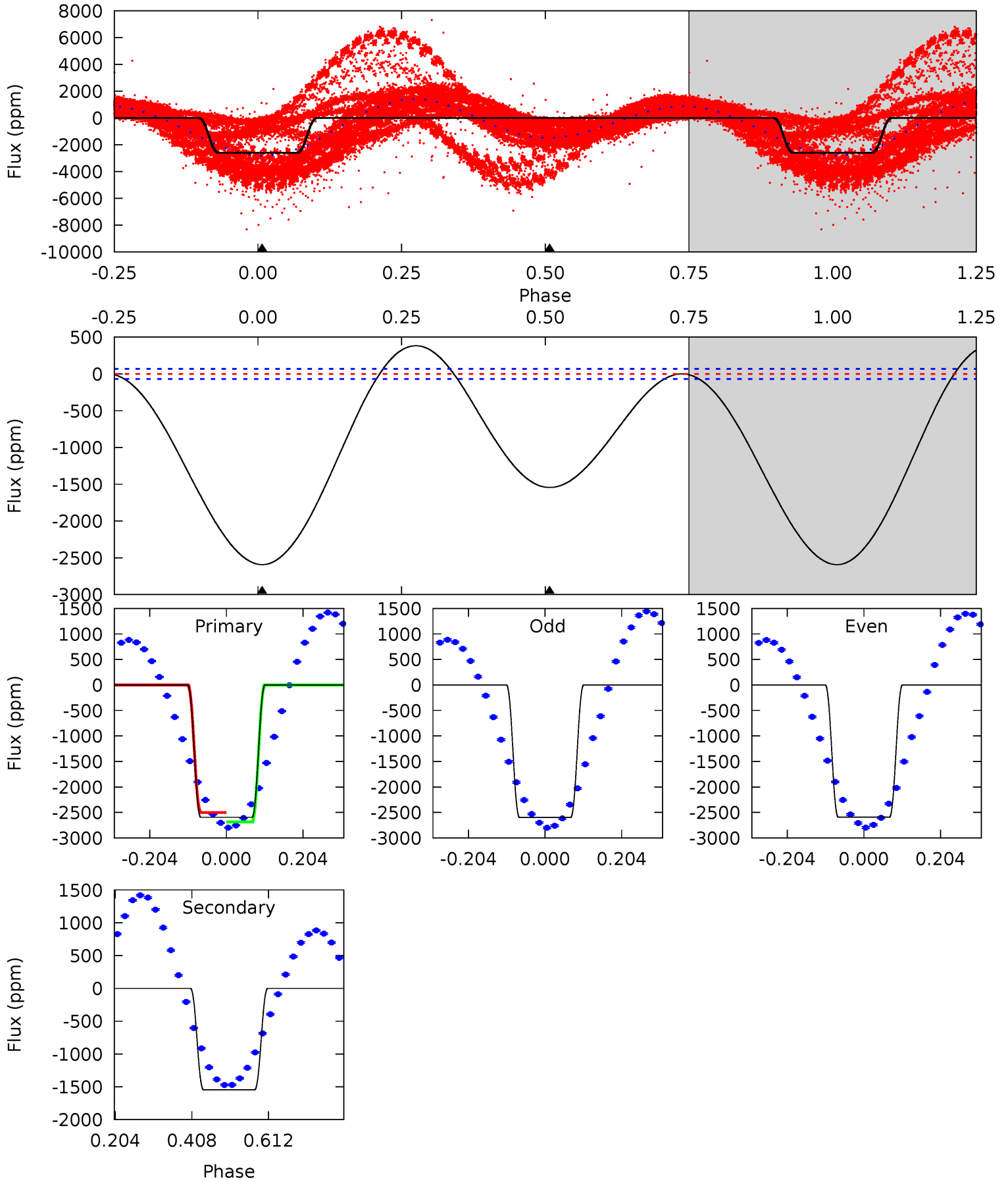
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.56	1.48	0	0	4.30	0.95	0.02	1.56	1.56	1.48	1.48	0.02	-239.2	0.01	0.72



Alt Model-Shift Uniqueness Test

011098975-01, P = 0.995003 Days, E = 131.320385 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
167.3	99.6	0	0	4.41	1.27	13.6	167.3	167.3	99.6	99.6	0.10	0.76	0.13	5.79



Stellar Parameters For KIC 011098975

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	9842^{+272}_{-443}	$4.213^{+0.136}_{-0.253}$	$0.070^{+0.150}_{-0.600}$	$1.961^{+0.917}_{-0.494}$	$2.295^{+0.445}_{-0.544}$	$0.428^{+0.371}_{-0.259}$
	+3%/-5%	+3%/-6%	+214%/-857%	+47%/-25%	+19%/-24%	+87%/-61%
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 011098975-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-54 ± 36	$3.47^{+0.87}_{-0.55}$	5363^{+510}_{-424}	5786^{+1031}_{-1902}	$1.443^{+1.335}_{-0.982}$
Alt.	-1544 ± 15	$6.54^{+1.53}_{-0.95}$	5366^{+524}_{-411}	11975^{+600}_{-678}	13^{+4}_{-4}

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 $A_{obs} \gg 1.0$

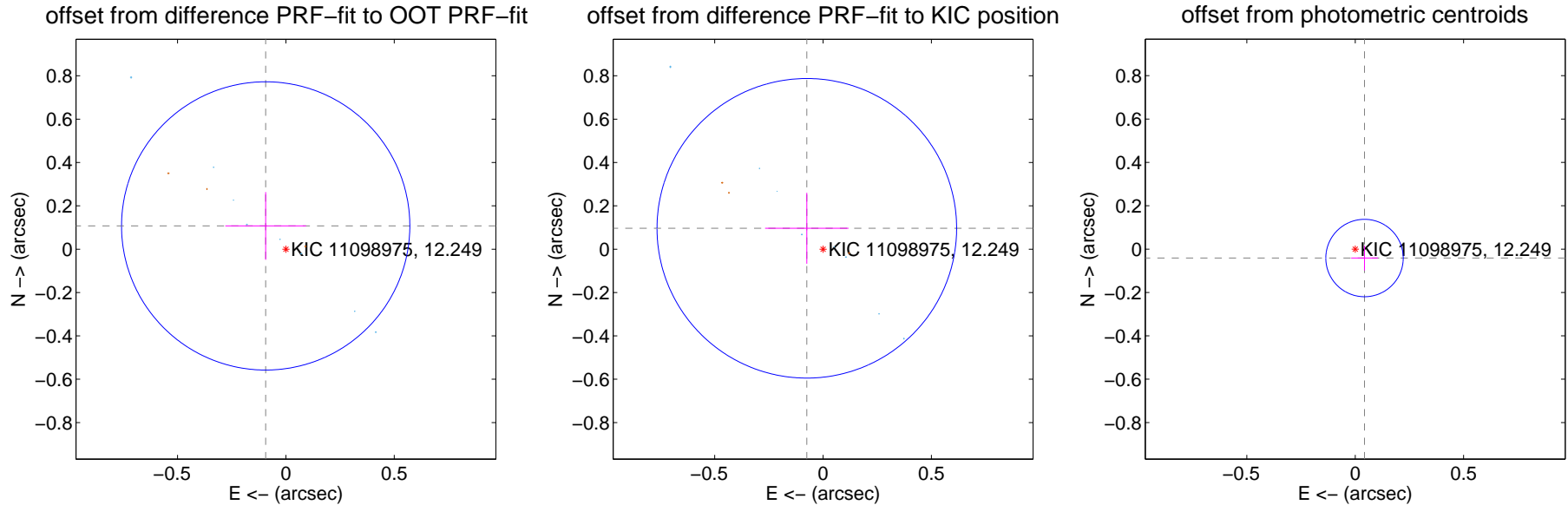
DV Centroid Data

Supplemental centroid analysis for 011098975-01. Kepler magnitude: 12.25. Transit SNR 65.24

There are 9 quarters with good PRF difference image offsets

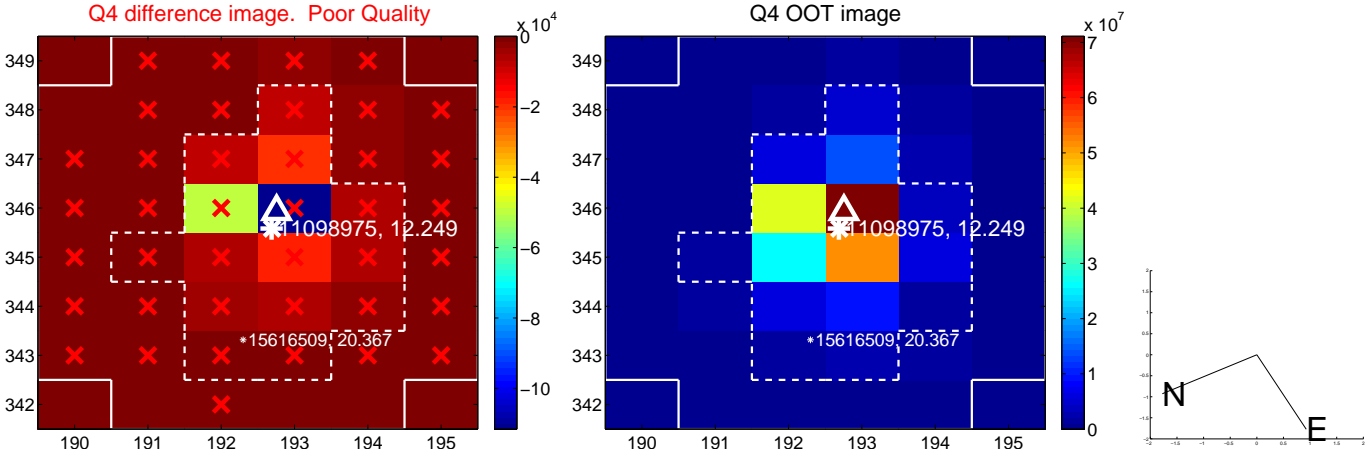
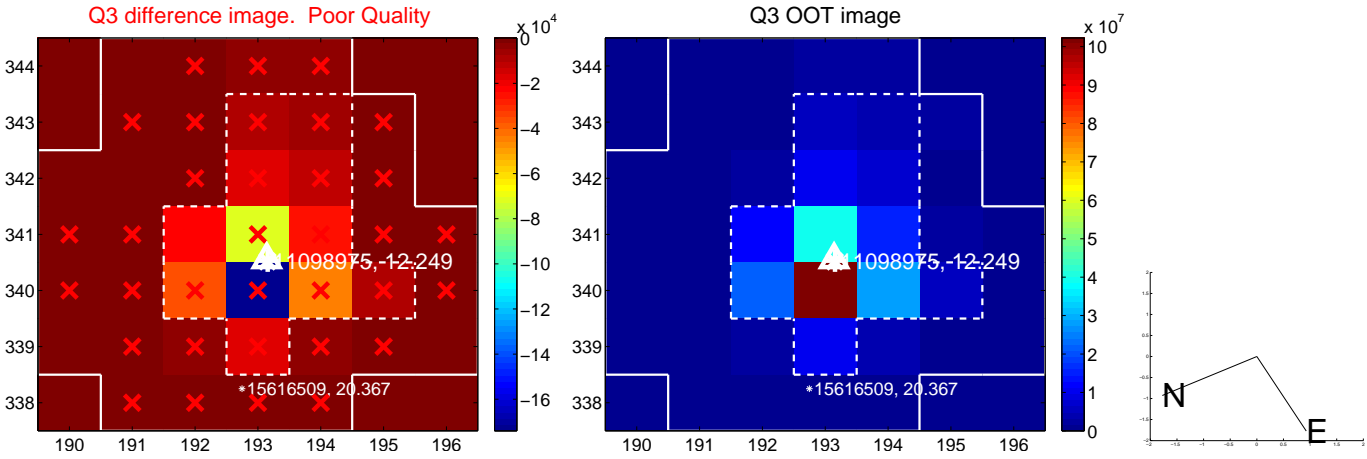
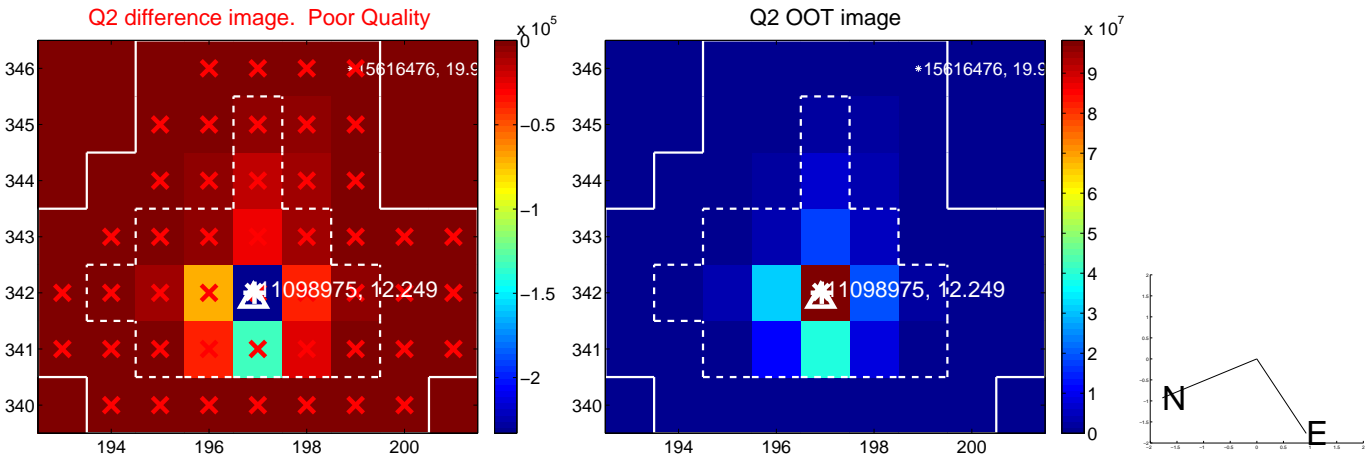
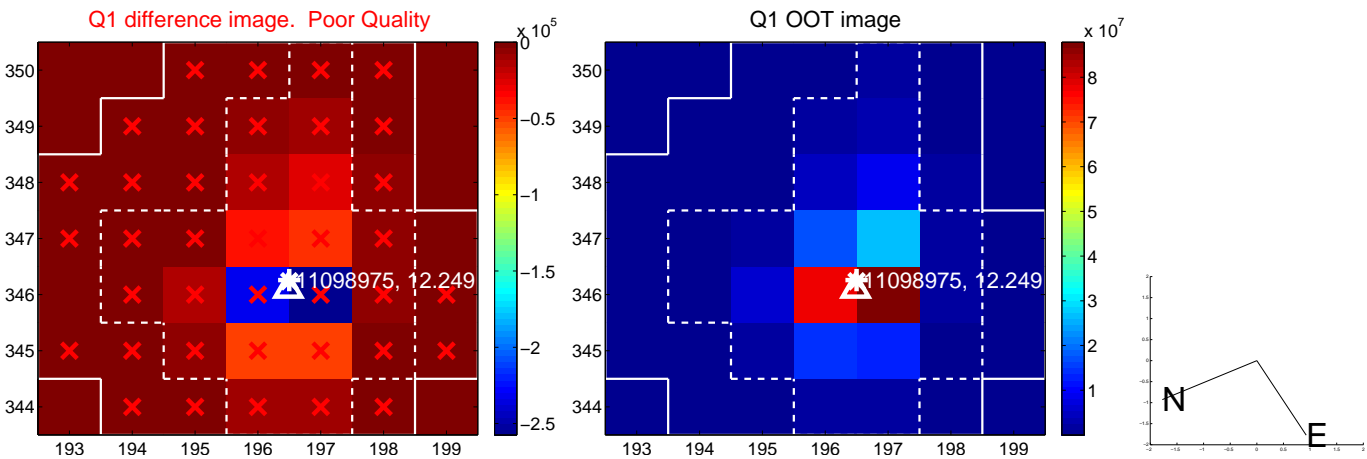
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.142 ± 0.222	0.64	0.093 ± 0.186	0.107 ± 0.156
PRF-fit source offset from KIC position	0.122 ± 0.230	0.53	0.075 ± 0.192	0.096 ± 0.164
photometric centroid source offset	0.06 ± 0.06	1.00	-0.04 ± 0.06	-0.04 ± 0.06

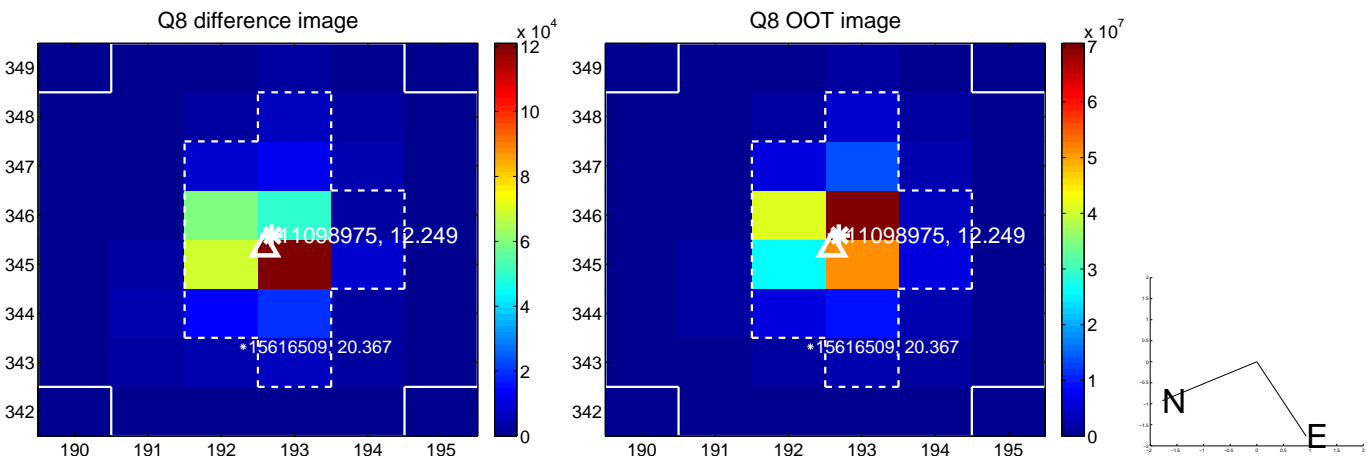
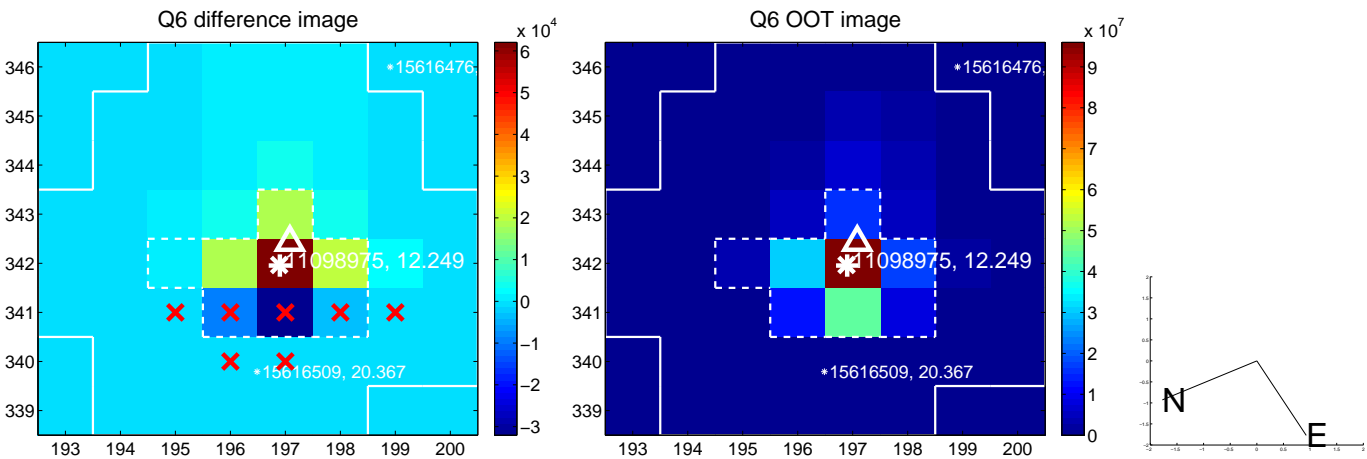
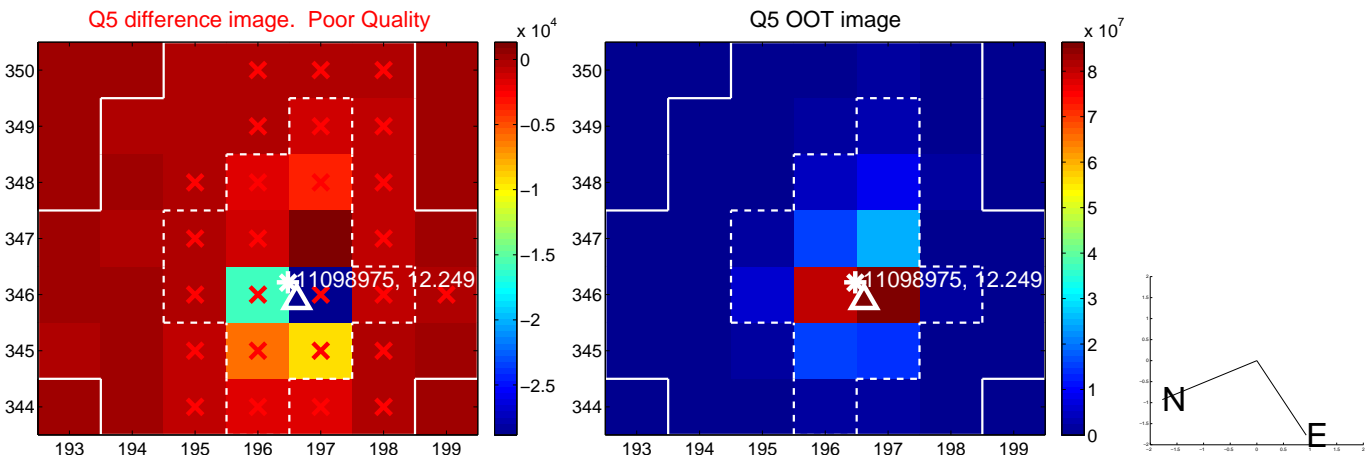


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

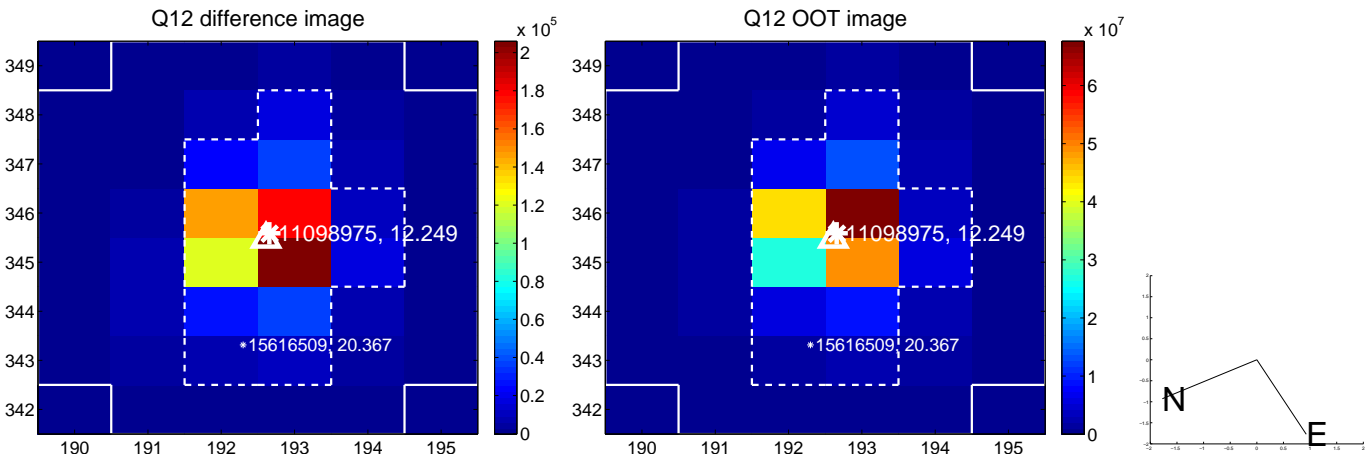
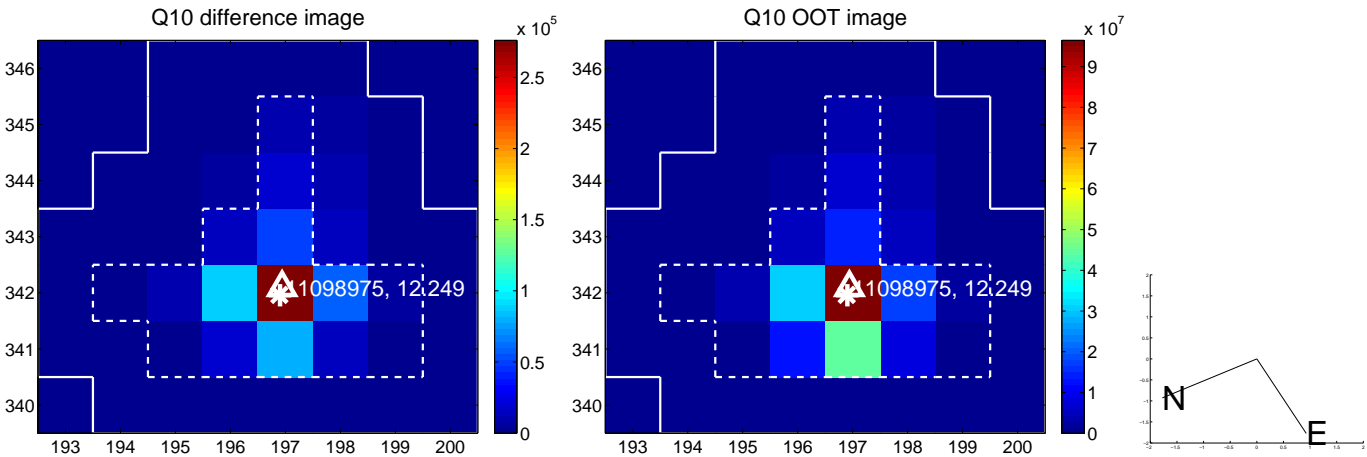
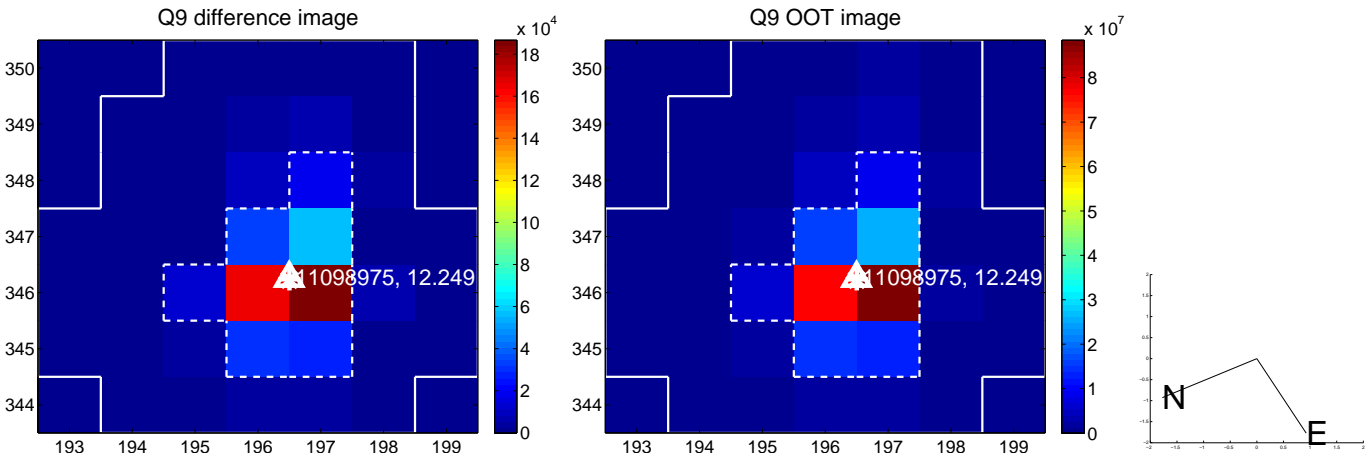
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



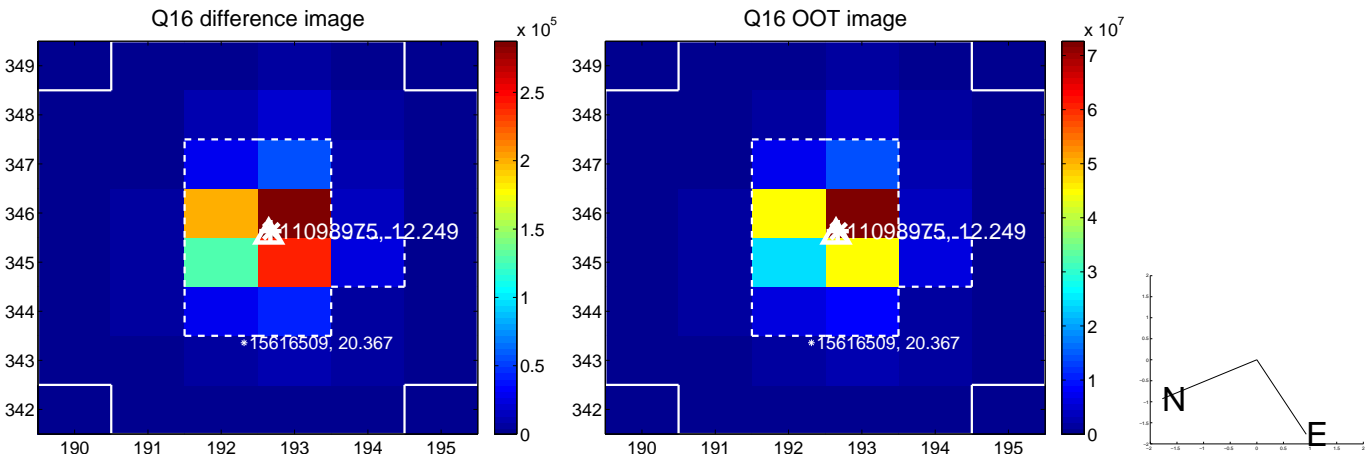
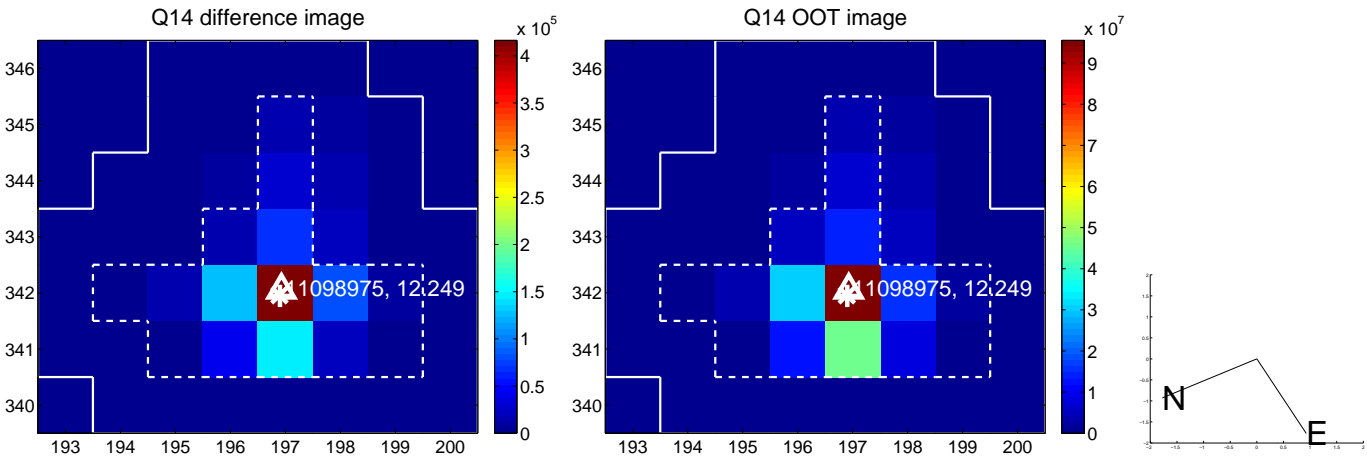
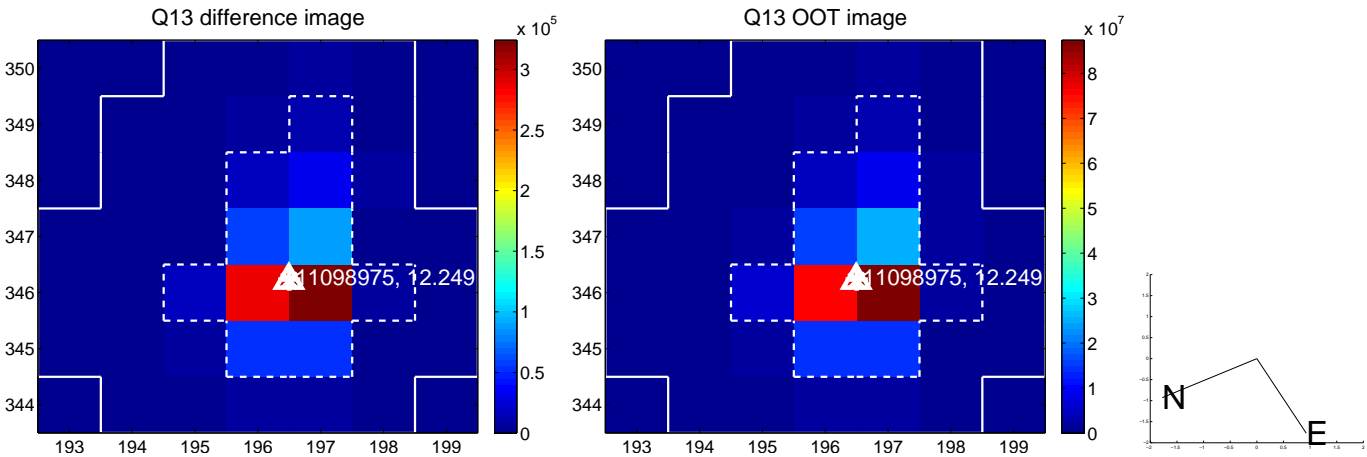
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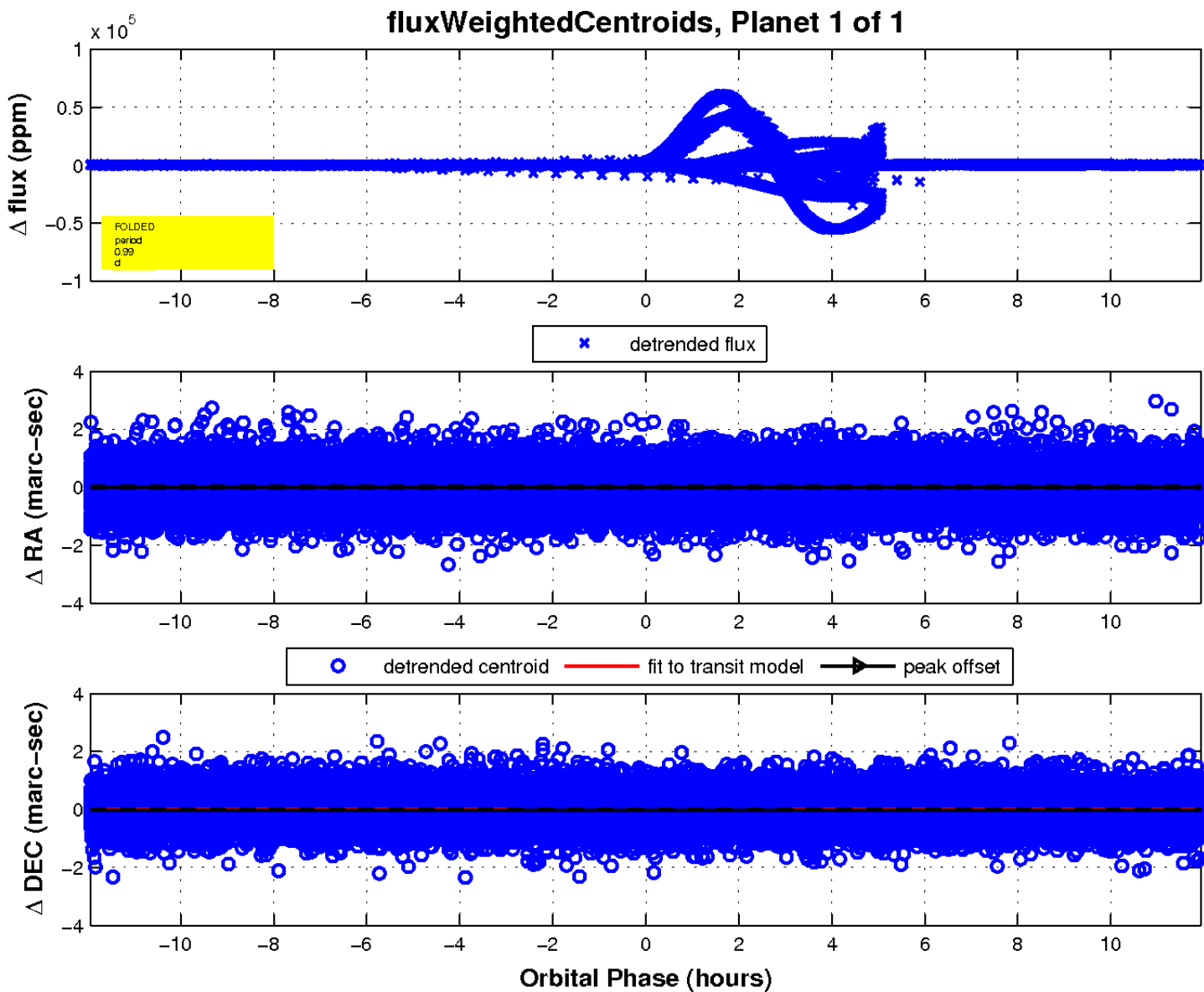
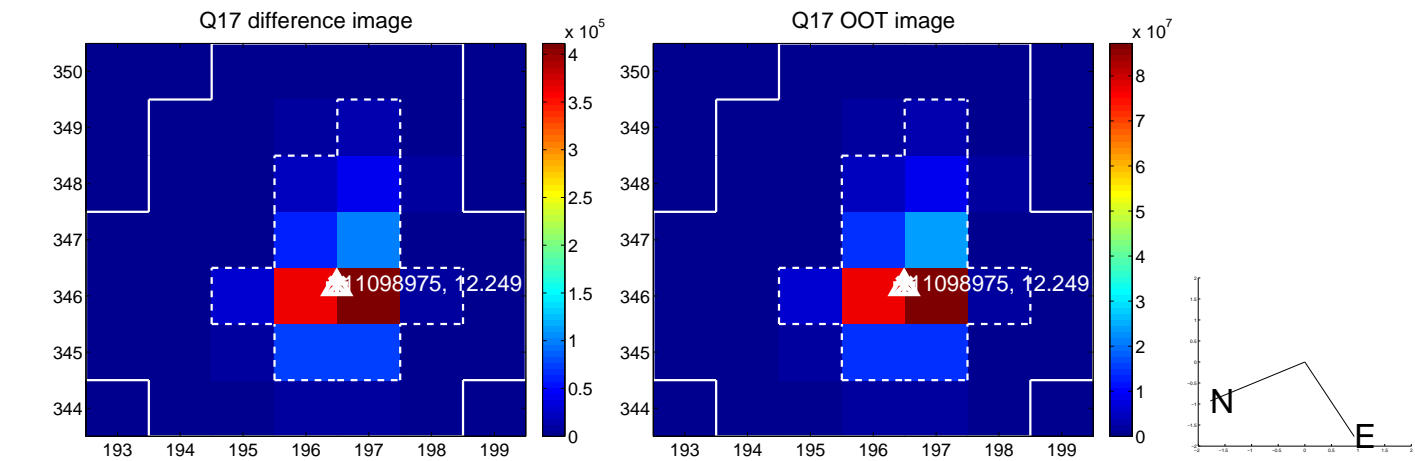
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UKIRT Image

Declination

