

KIC 006309129

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})
006309129-01	OBS	No	6.215682	137.009665	0.2	1.583	9.0	0.1	3.72	7733	0.16	6413.52
006309129-02	OBS	No	6.215999	136.312880	17.8	12.500	9.1	-1.0	3.72	7733	1.58	6413.08
006309129-03	OBS	No	6.217501	133.863074	12.1	23.557	9.1	9.9	3.72	7733	1.50	6411.02

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006309129-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
006309129-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_SATURATED
006309129-03	OBS	FP	0.00	1	0	0	0	LPP_DV—SAME_NTL_PERIOD—CENT_SATURATED

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

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

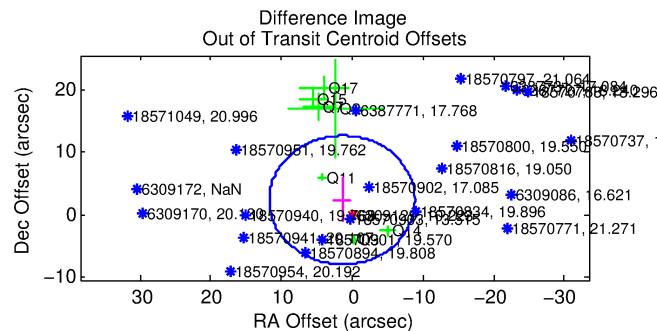
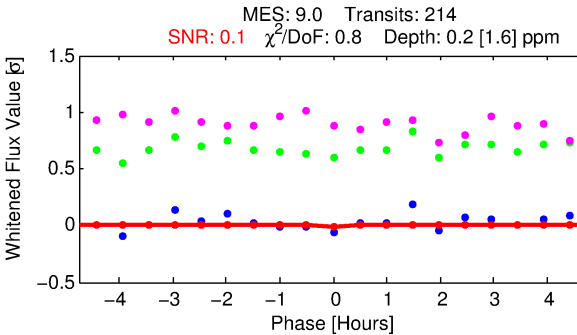
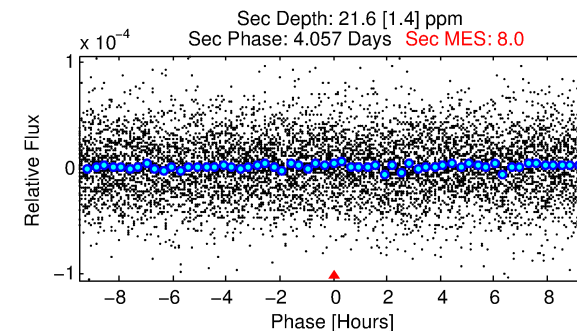
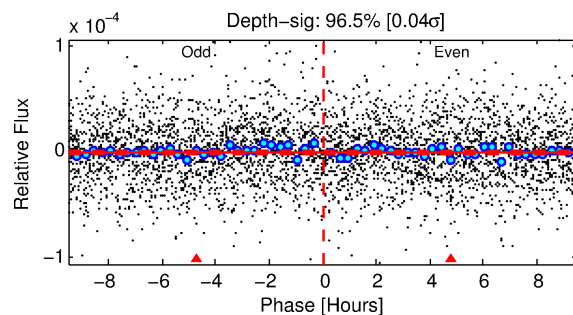
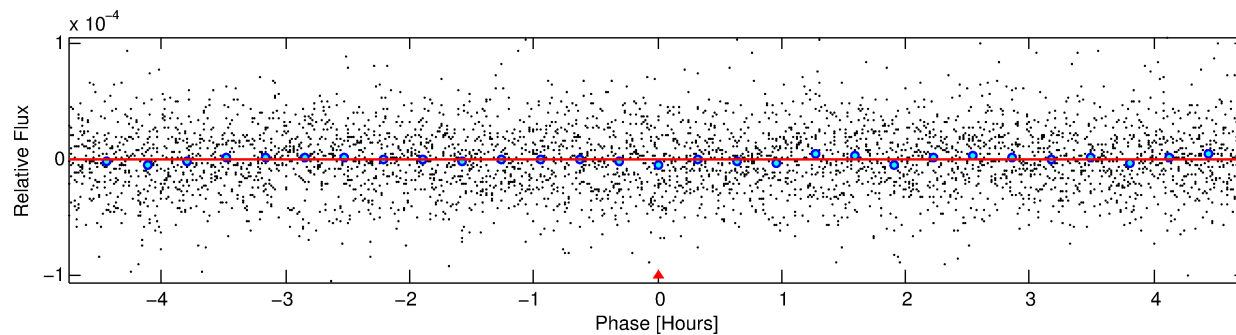
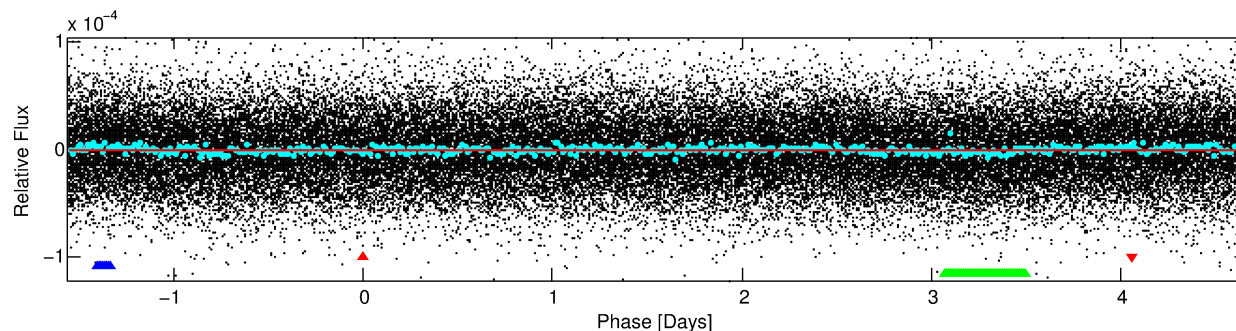
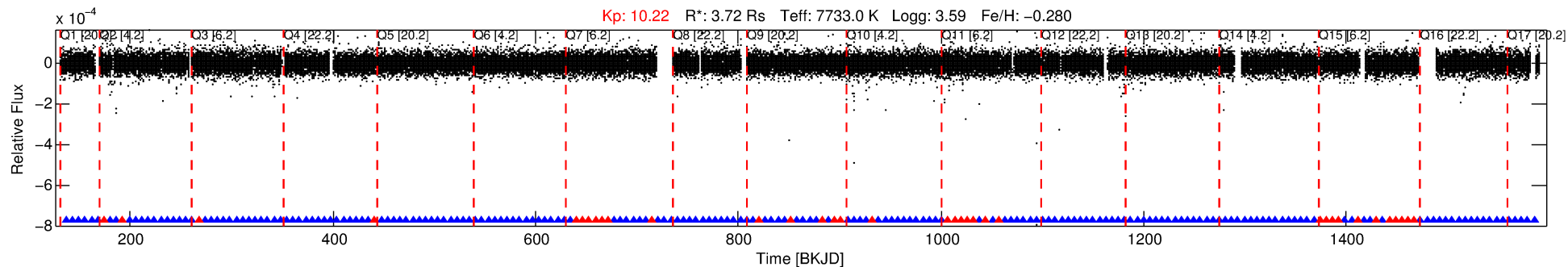
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006309129-01

No Significant Match Found

DV One-Page Summary

KIC: 6309129 Candidate: 1 of 3 Period: 6.216 d



DV Fit Results:

Period = 6.21568 [0.00258] d
Epoch = 137.0097 [0.2972] BKJD
Rp/R* = 0.0004 [0.0025]
a/R* = 29.19 [665.93]
b = 0.23 [96.51]
Seff = 6413.52 [6152.42]
Teq = 2282 [547] K
Rp = 0.16 [1.01] Re
a = 0.0831 [0.0474] AU
Ag = 3384.58 [43876.41] [0.08σ]
Teffp = 26910 [86989] K [0.28σ]

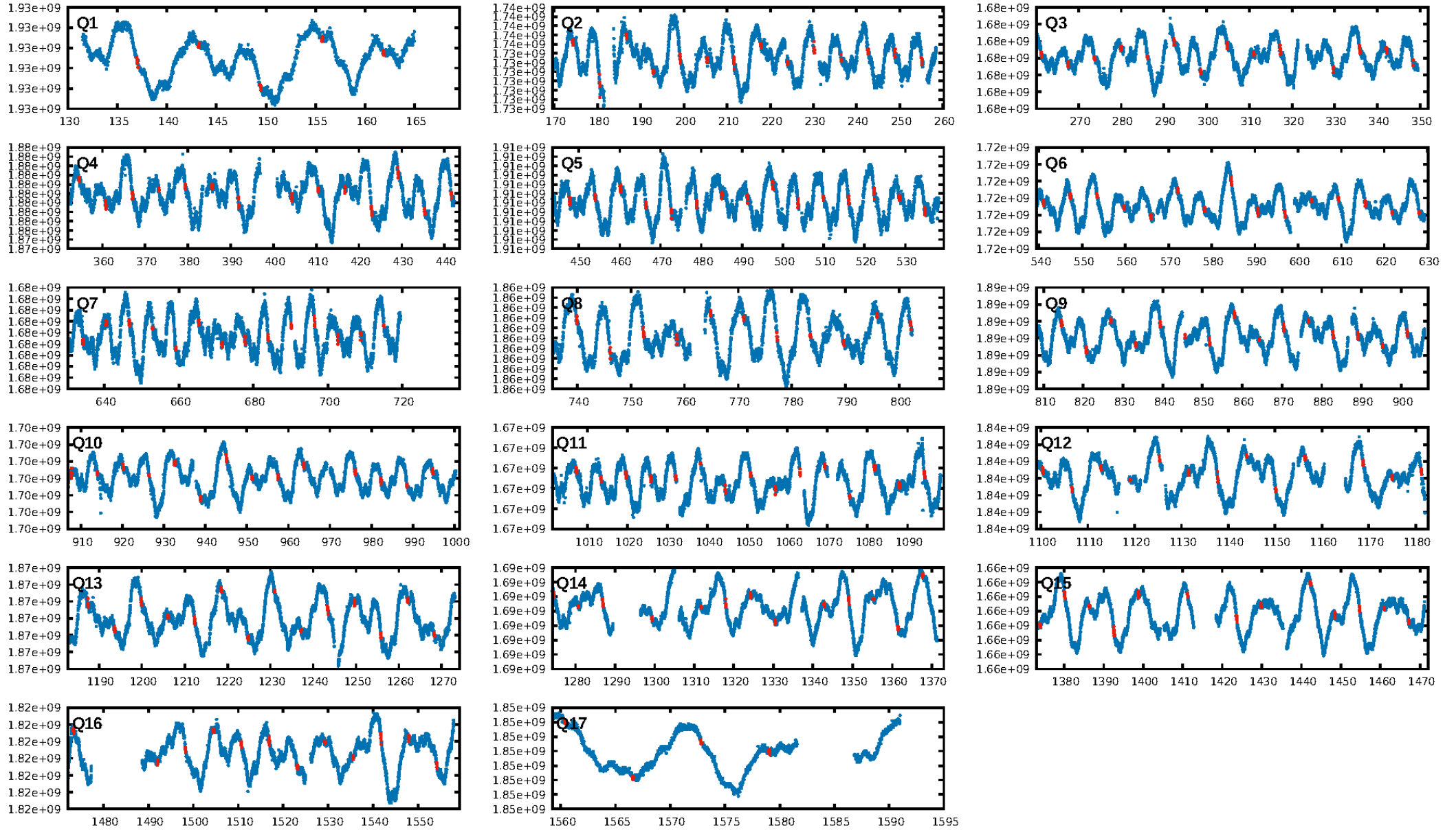
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 3.98e-16
RollingBand-fgt: 0.83 [170/205]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 2.717 arcsec [0.79σ]
KicOffset-rm: 3.407 arcsec [1.00σ]
OotOffset-st: 2/4/0/1 [7]
KicOffset-st: 2/4/0/1 [7]
DiffImageQuality-fgm: 0.14 [1/7]
DiffImageOverlap-fno: 1.00 [17/17]

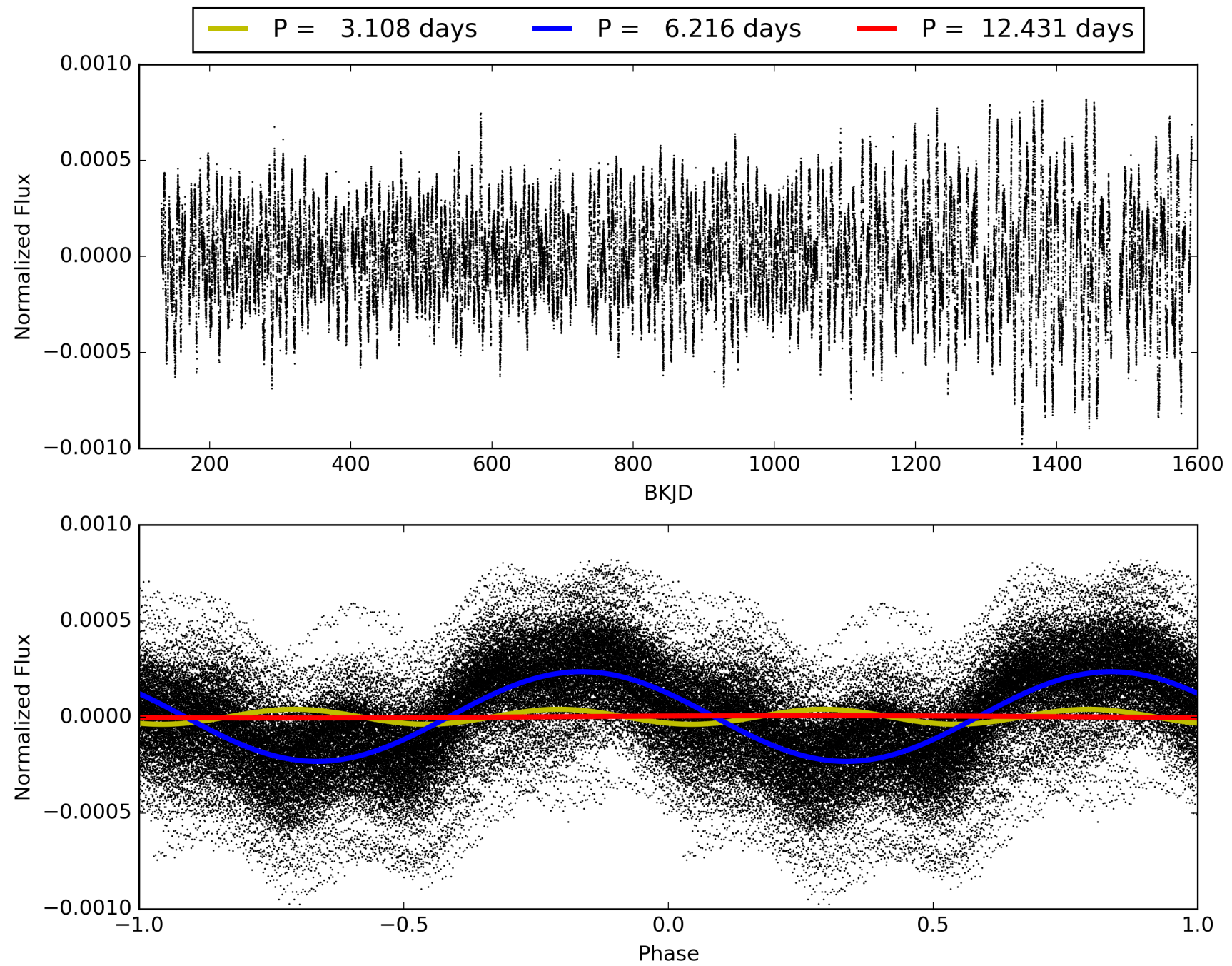
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 04:09:50 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006309129-01, PDC Light Curves

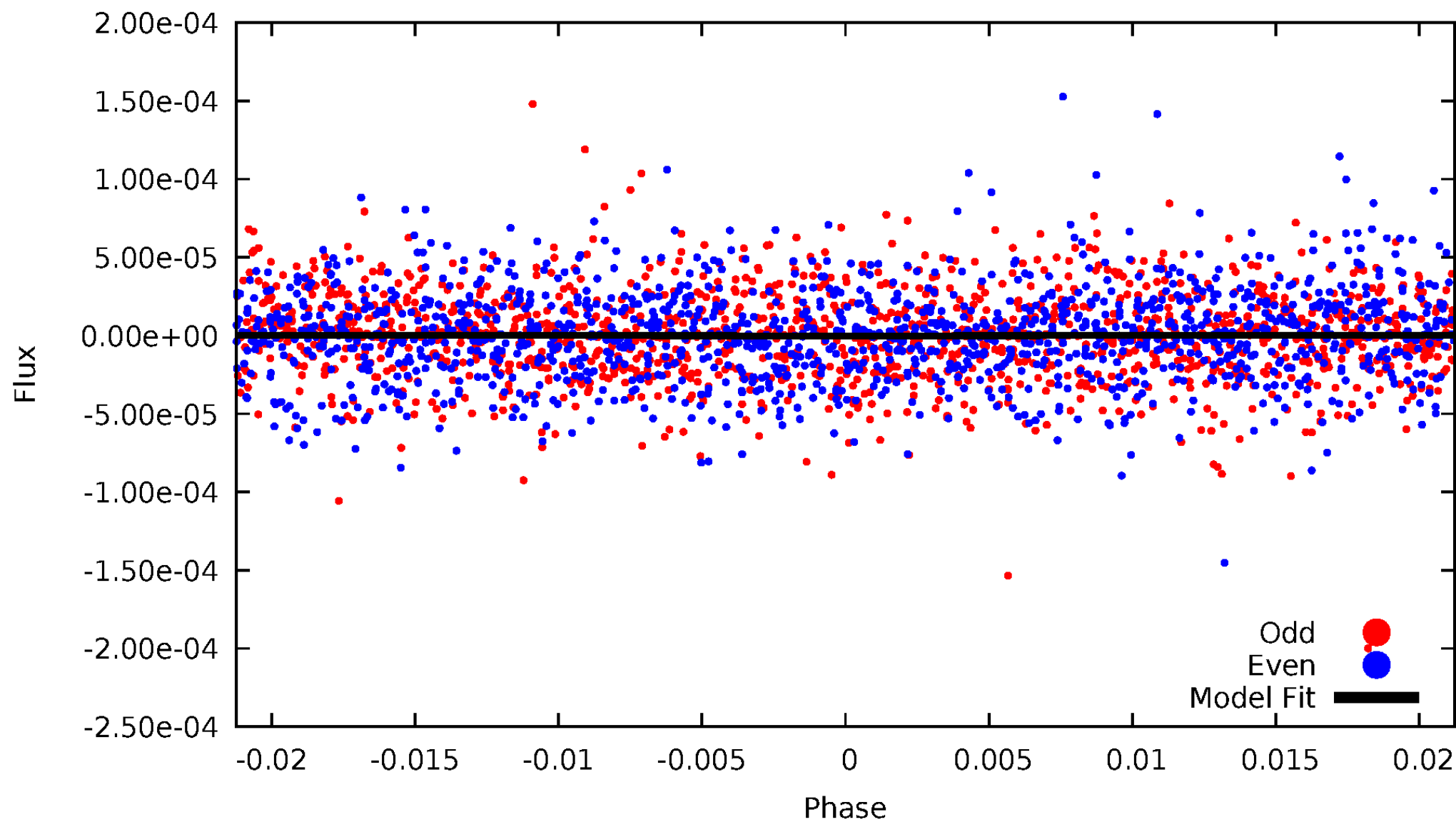


TCE 006309129-01



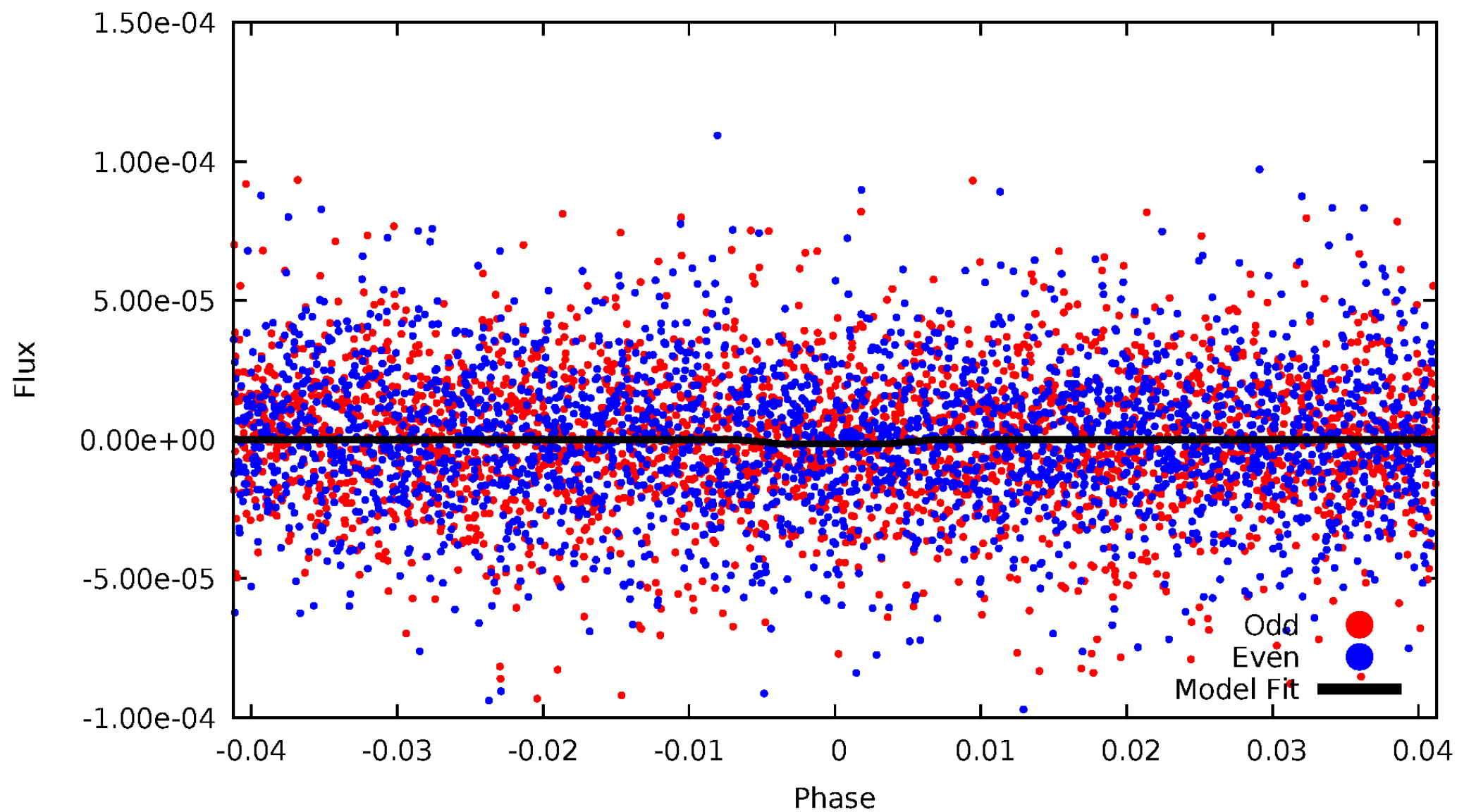
DV Odd/Even

TCE 006309129-01

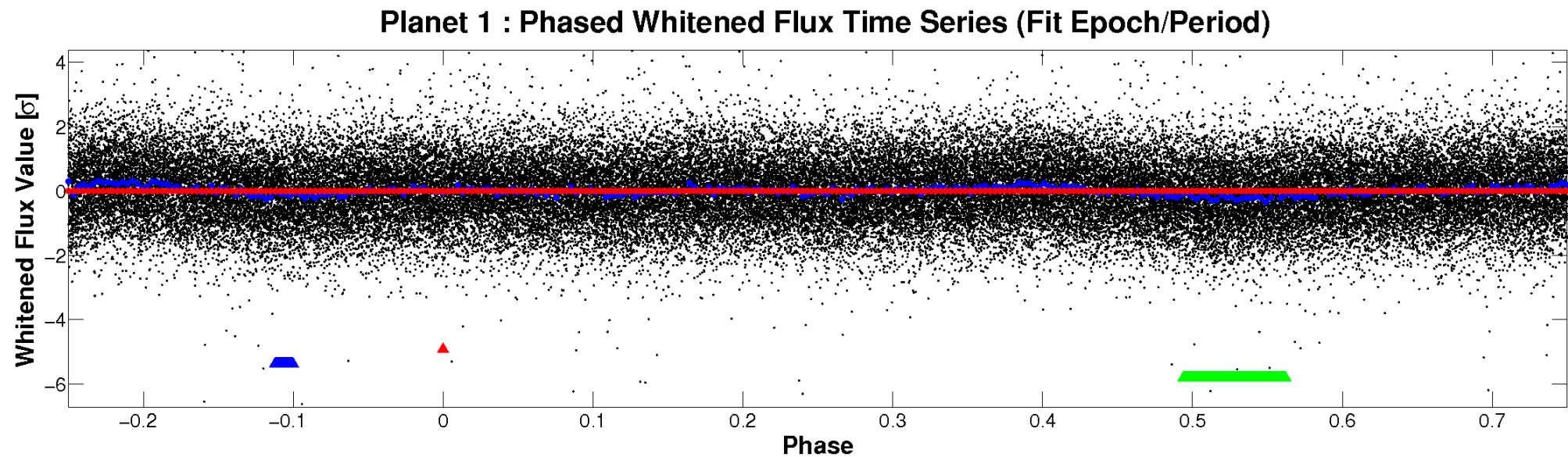
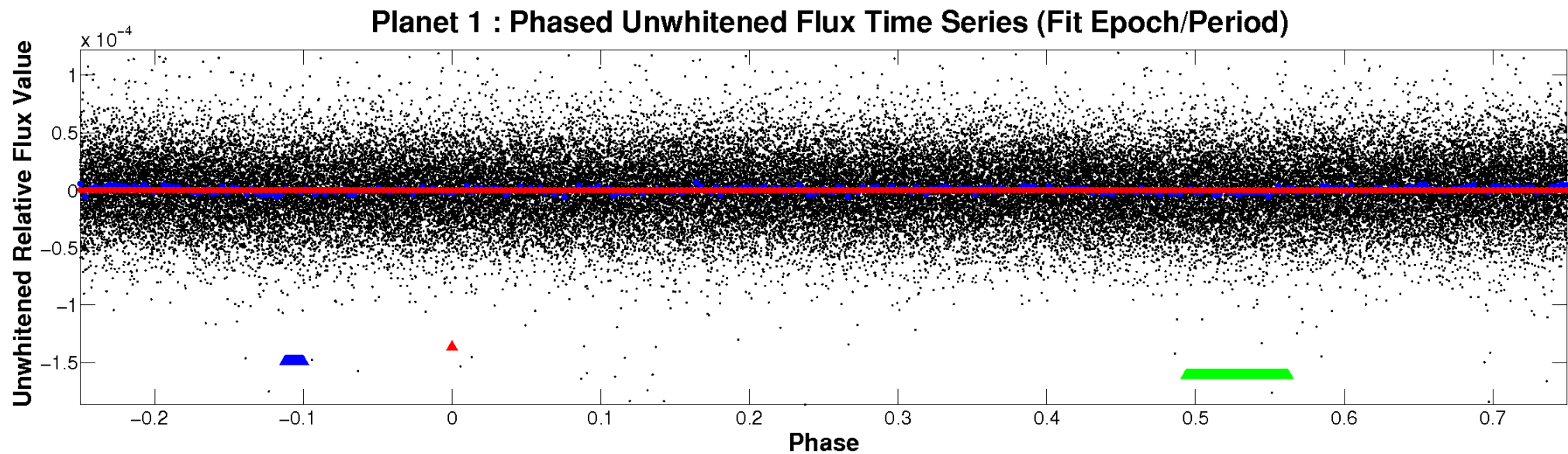


ALT Odd/Even

TCE 006309129-01

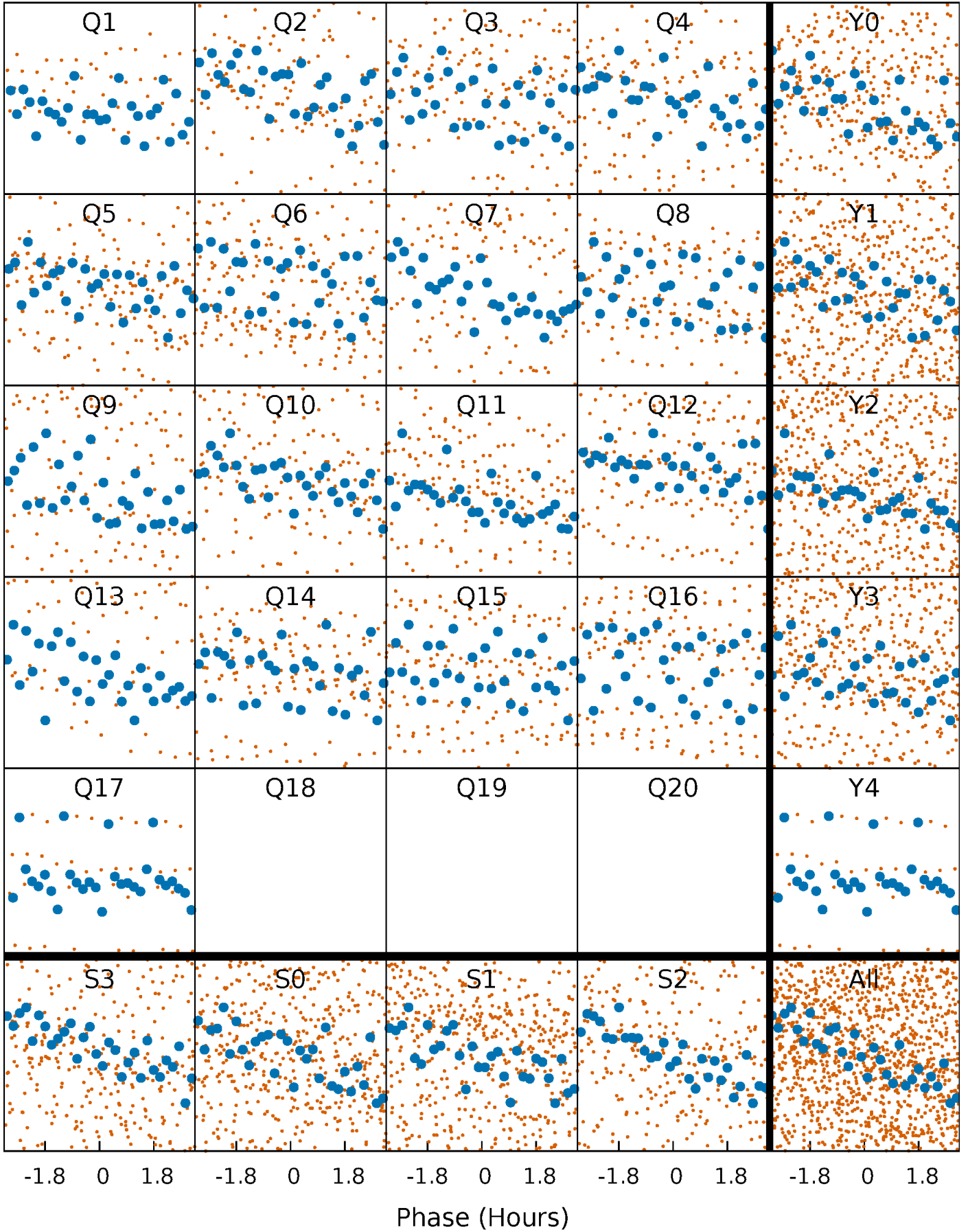


Non-Whitened Vs. Whitened Light Curve



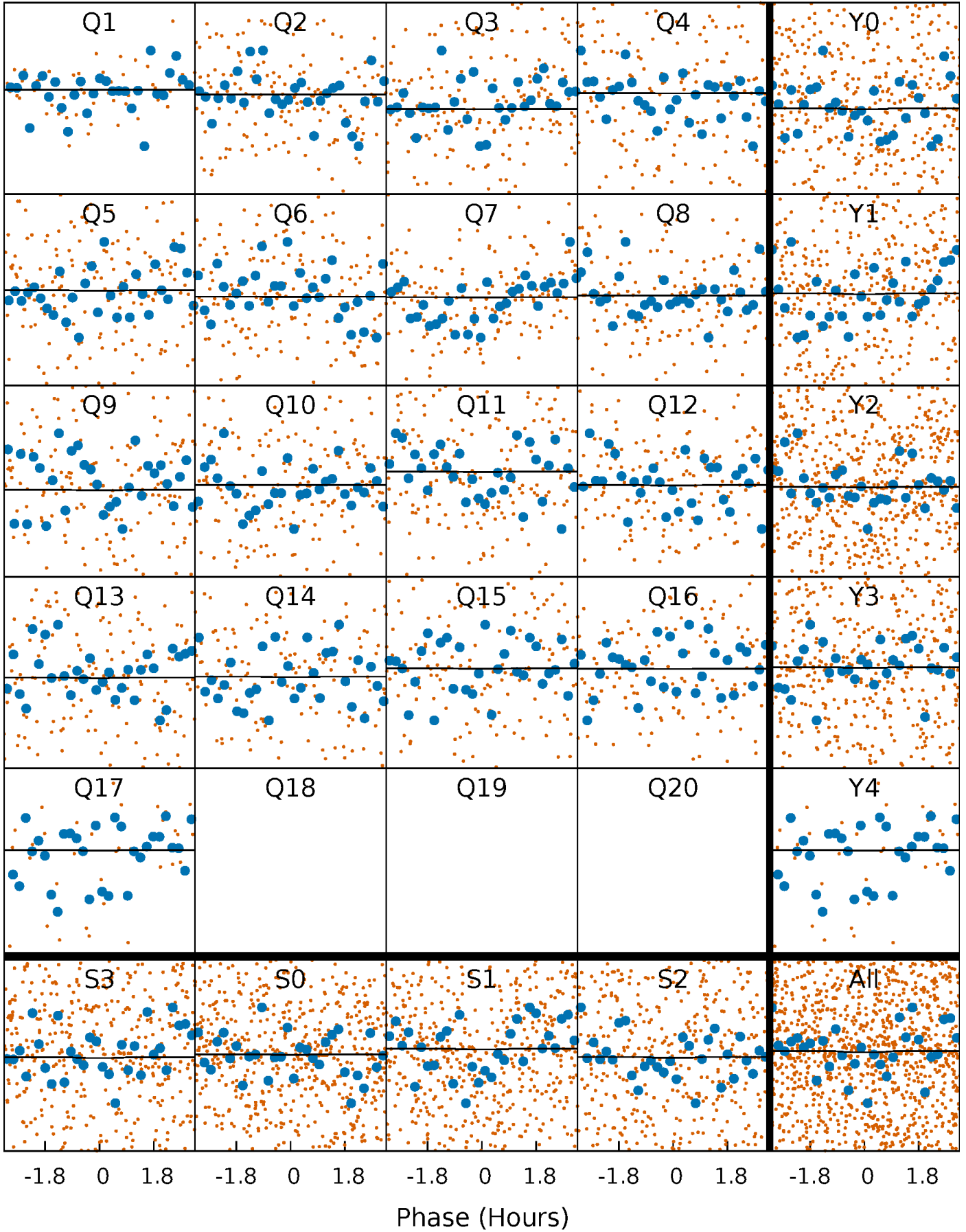
PDC Quarter-Phased Transit Curves

TCE 006309129-01 P= 6.215682 Days $T_0=137.009665$ (BKJD)



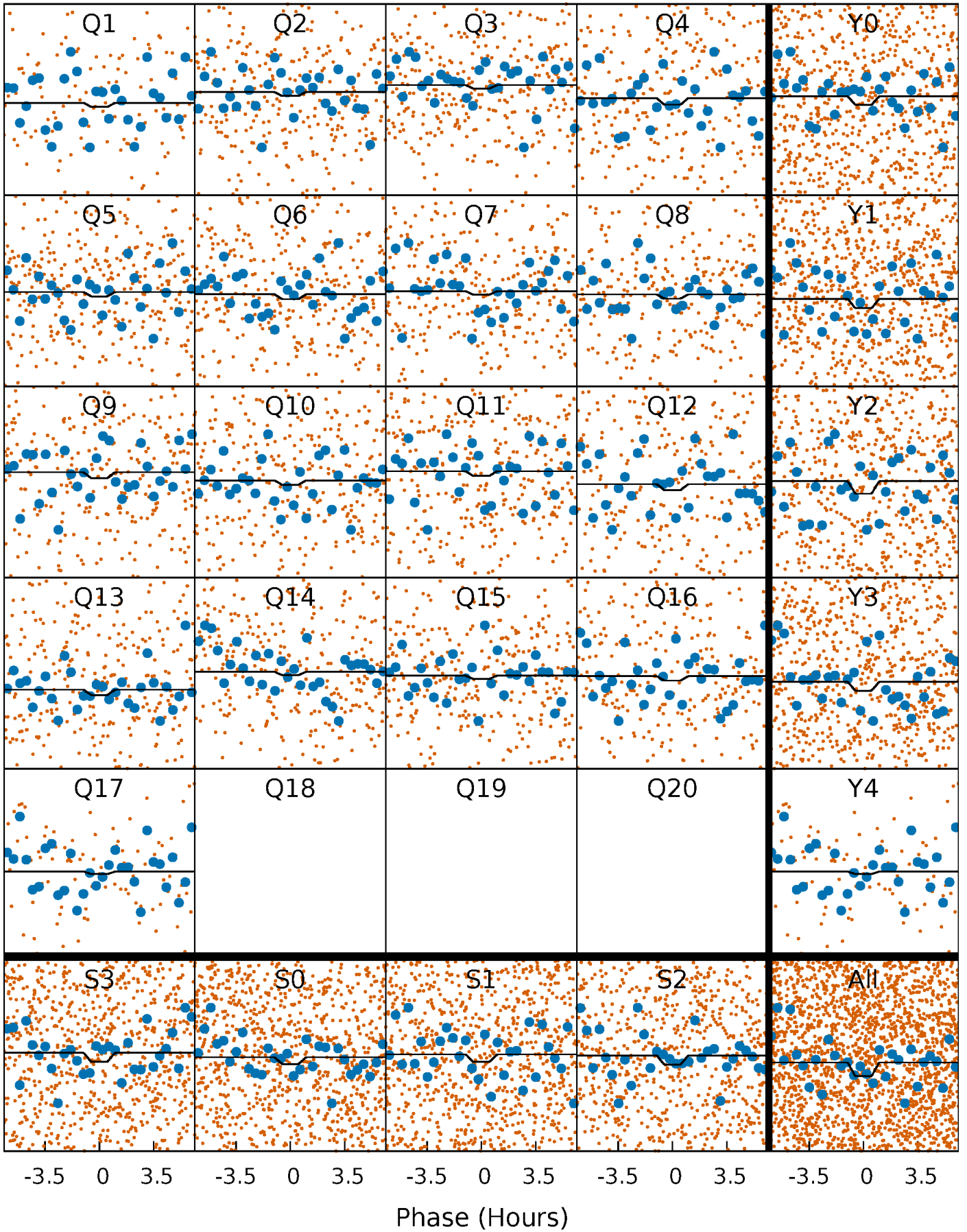
DV Quarter-Phased Transit Curves

TCE 006309129-01 P= 6.215682 Days $T_0=137.009665$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

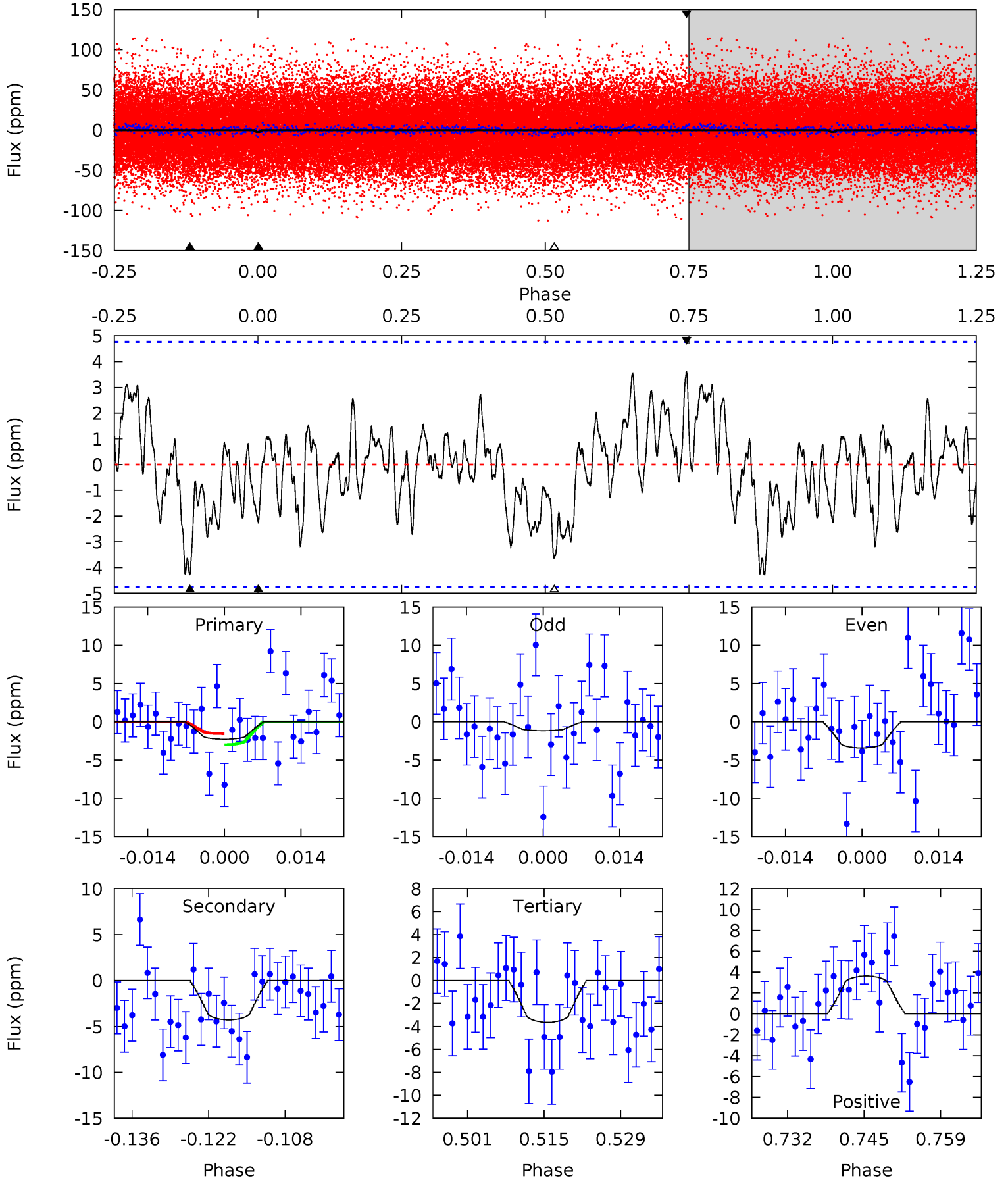
TCE 006309129-01 P= 6.216442 Days $T_0=136.876641$ (BKJD)



DV Model-Shift Uniqueness Test

006309129-01, P = 6.215682 Days, E = 130.793983 Days

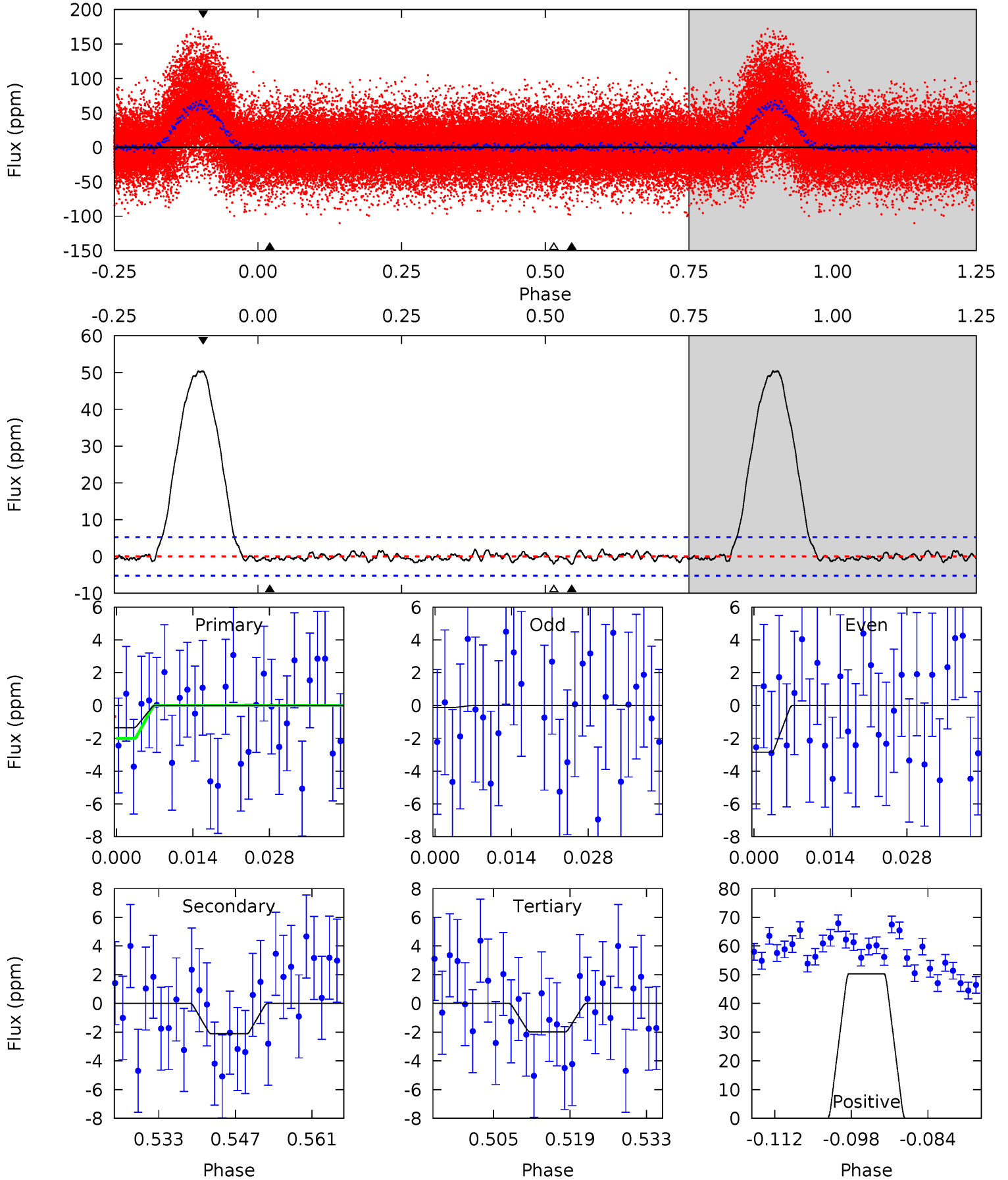
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.36	4.47	3.80	3.78	4.97	2.47	1.54	-1.44	-1.42	0.67	0.69	1.19	1.17	0.46	0.76



Alt Model-Shift Uniqueness Test

006309129-01, P = 6.216442 Days, E = 130.660199 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.28	2.00	1.87	47.7	4.96	2.46	11.4	-0.59	-46.4	0.13	-45.7	1.33	1.58	0.96	0.62



Stellar Parameters For KIC 006309129

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7733^{+212}_{-319}	$3.594^{+0.567}_{-0.063}$	$-0.280^{+0.250}_{-0.300}$	$3.717^{+0.513}_{-2.052}$	$1.980^{+0.094}_{-0.530}$	$0.054^{+0.394}_{-0.011}$
	+3%/-4%	+16%/-2%	+89%/-107%	+14%/-55%	+5%/-27%	+725%/-21%
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 006309129-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-4 ± 1	$0.55^{+0.72}_{-0.38}$	3015^{+243}_{-409}	8729^{+16042}_{-3043}	50^{+445}_{-40}
Alt.	-2 ± 1	$0.76^{+0.72}_{-0.51}$	3027^{+247}_{-395}	5848^{+5711}_{-1685}	12^{+101}_{-9}

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 $A_{\text{obs}} \gg 1.0$

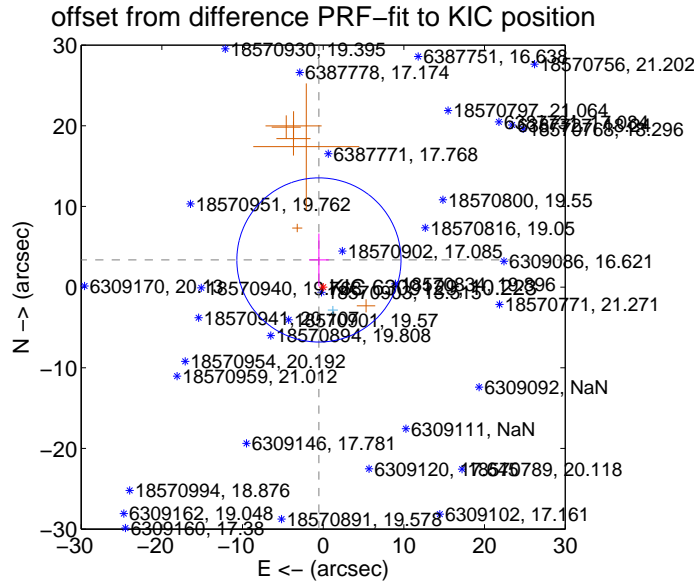
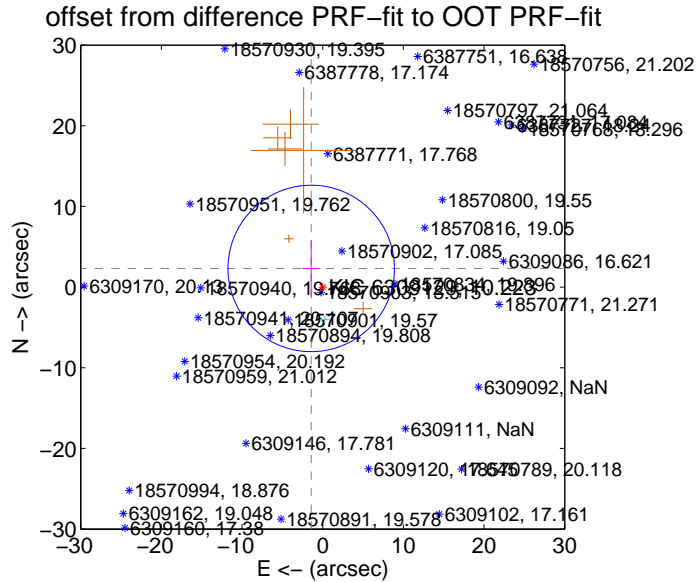
DV Centroid Data

Supplemental centroid analysis for 006309129-01. **Kepler magnitude: 10.22.** Transit SNR 0.11

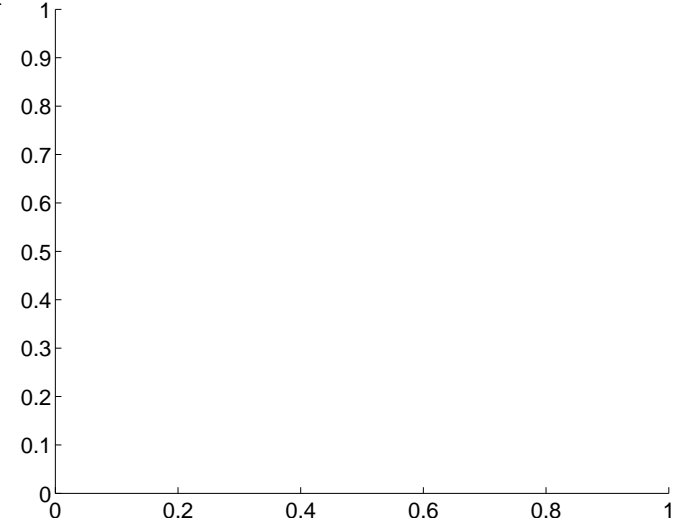
There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.39 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.717 ± 3.439	0.79	1.426 ± 1.125	2.312 ± 3.510
PRF-fit source offset from KIC position	3.407 ± 3.392	1.00	0.527 ± 1.228	3.365 ± 3.267
photometric centroid source offset	—	—	—	—

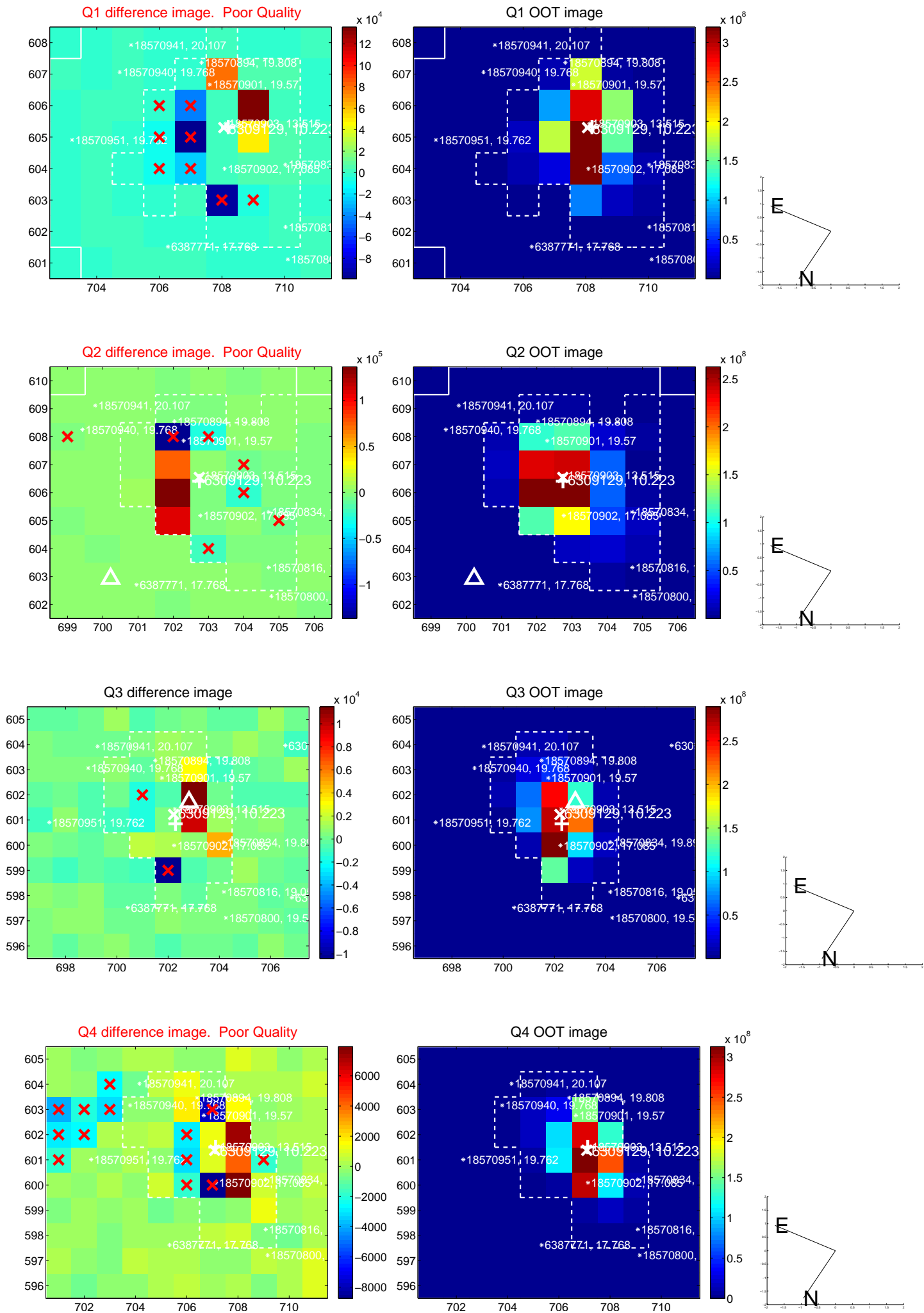


There are no photometric centroids

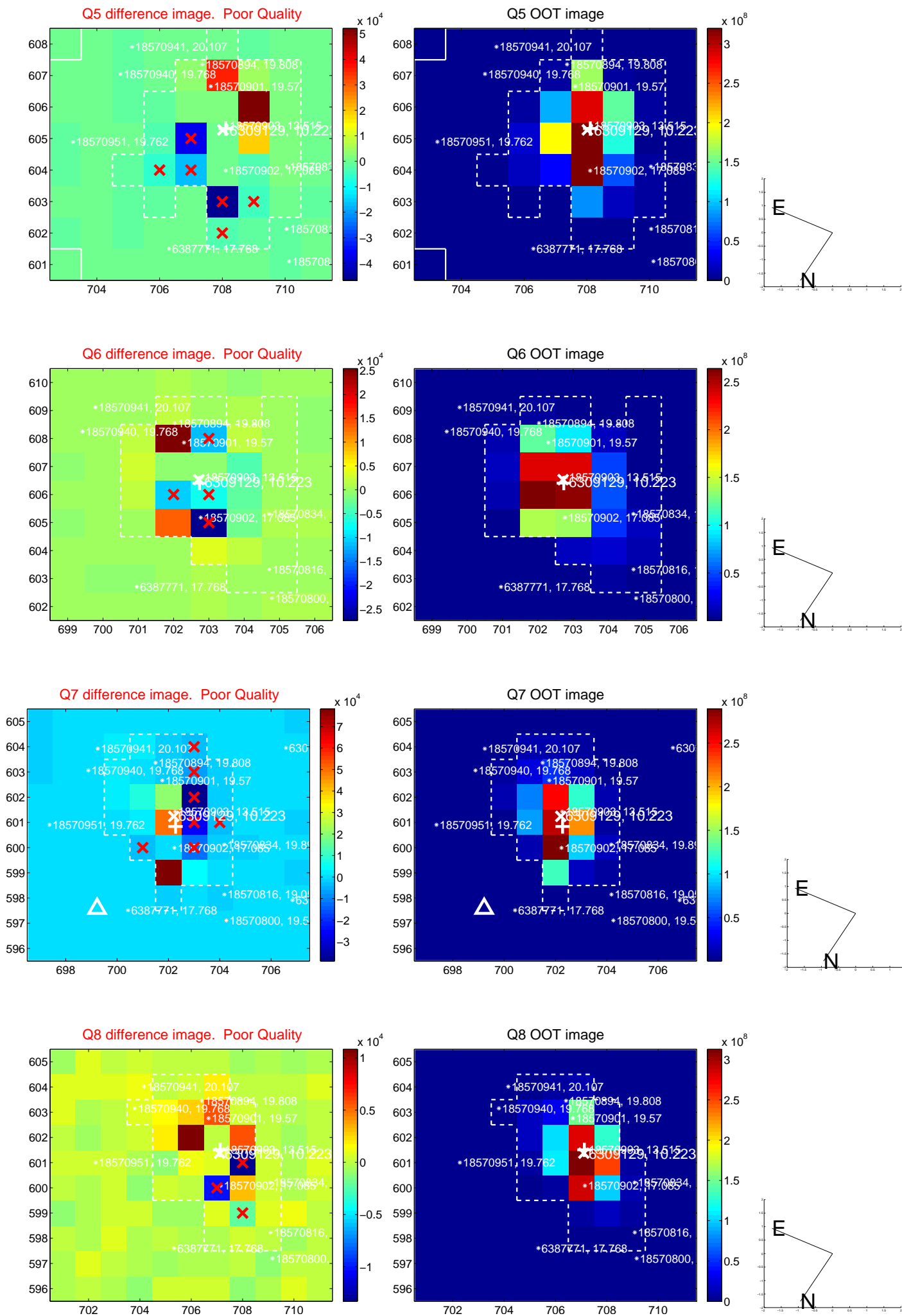


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

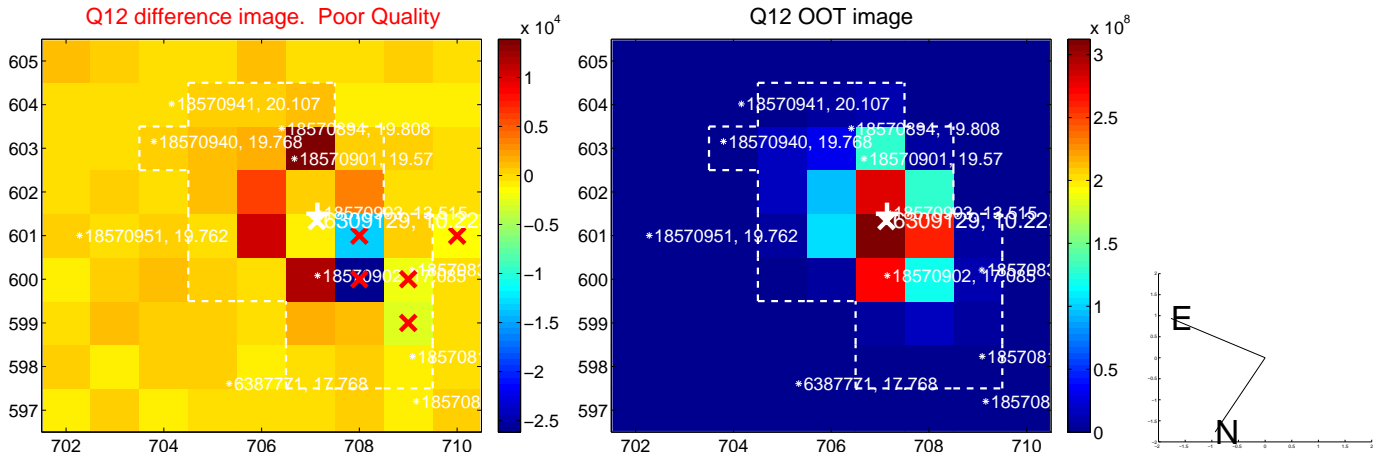
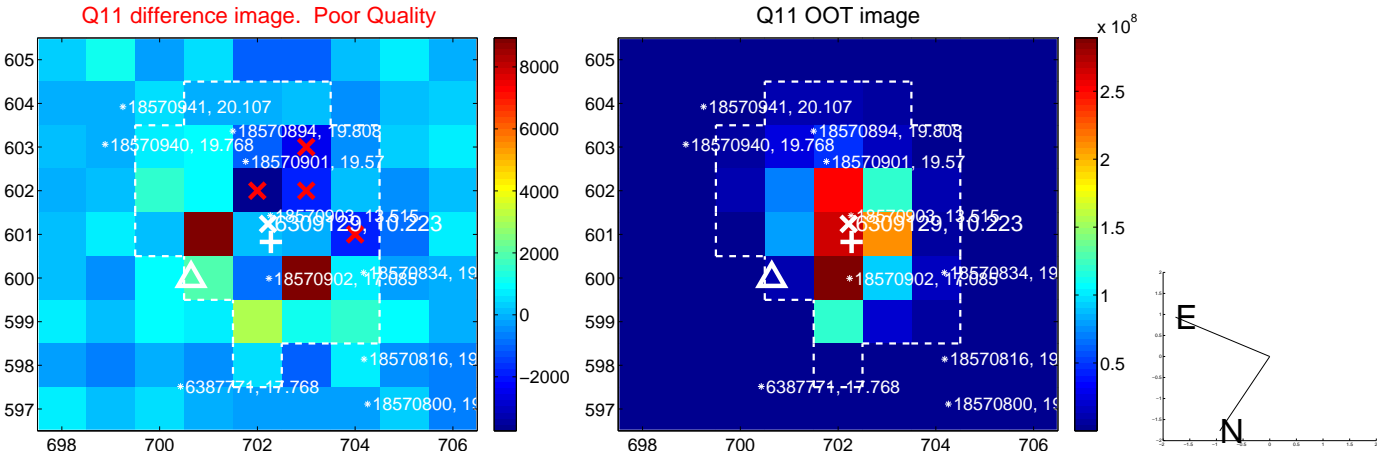
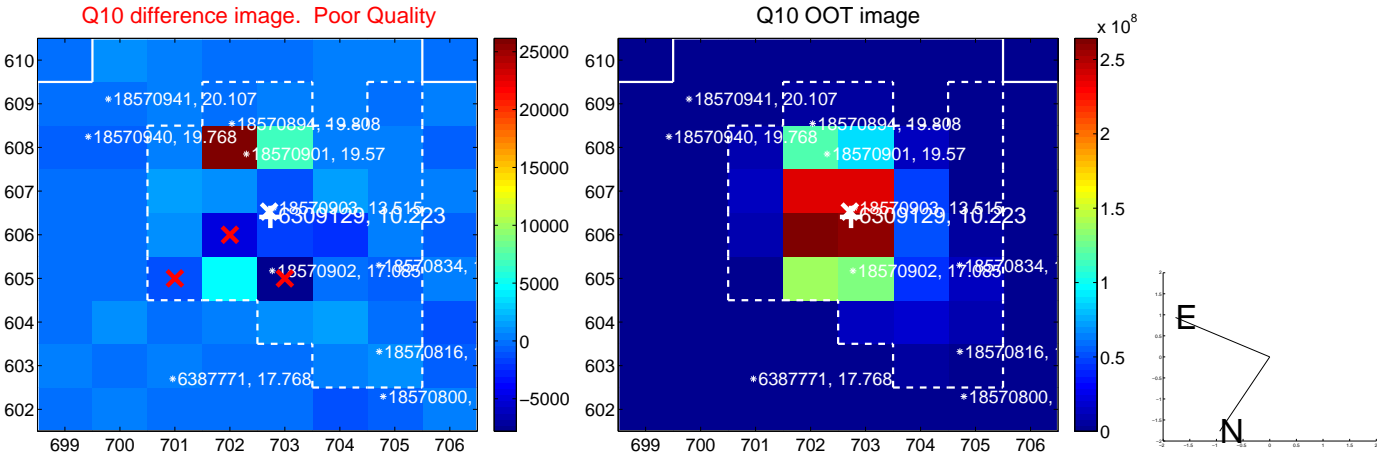
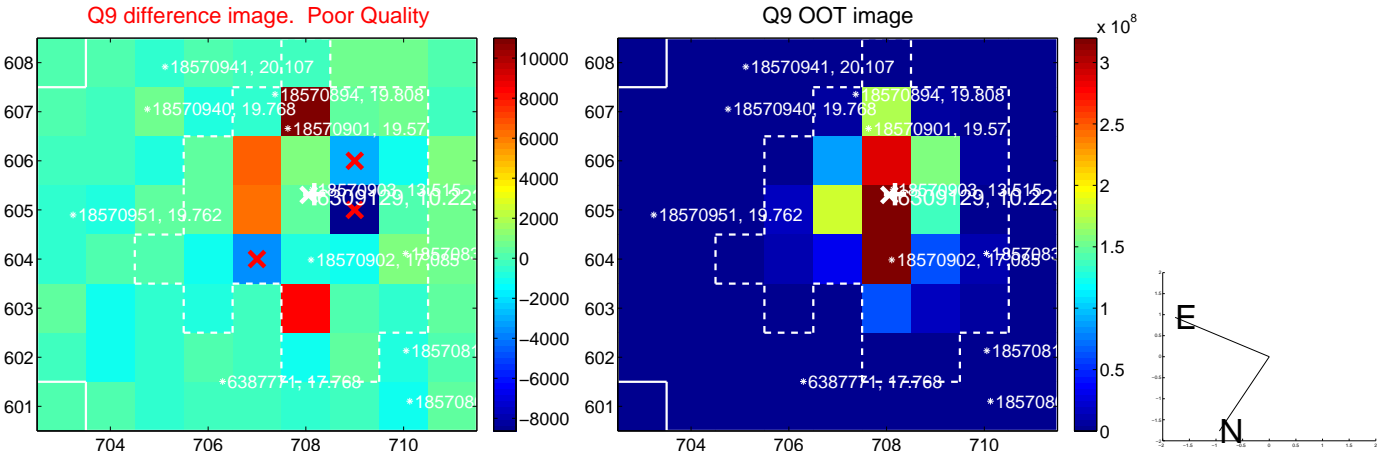
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



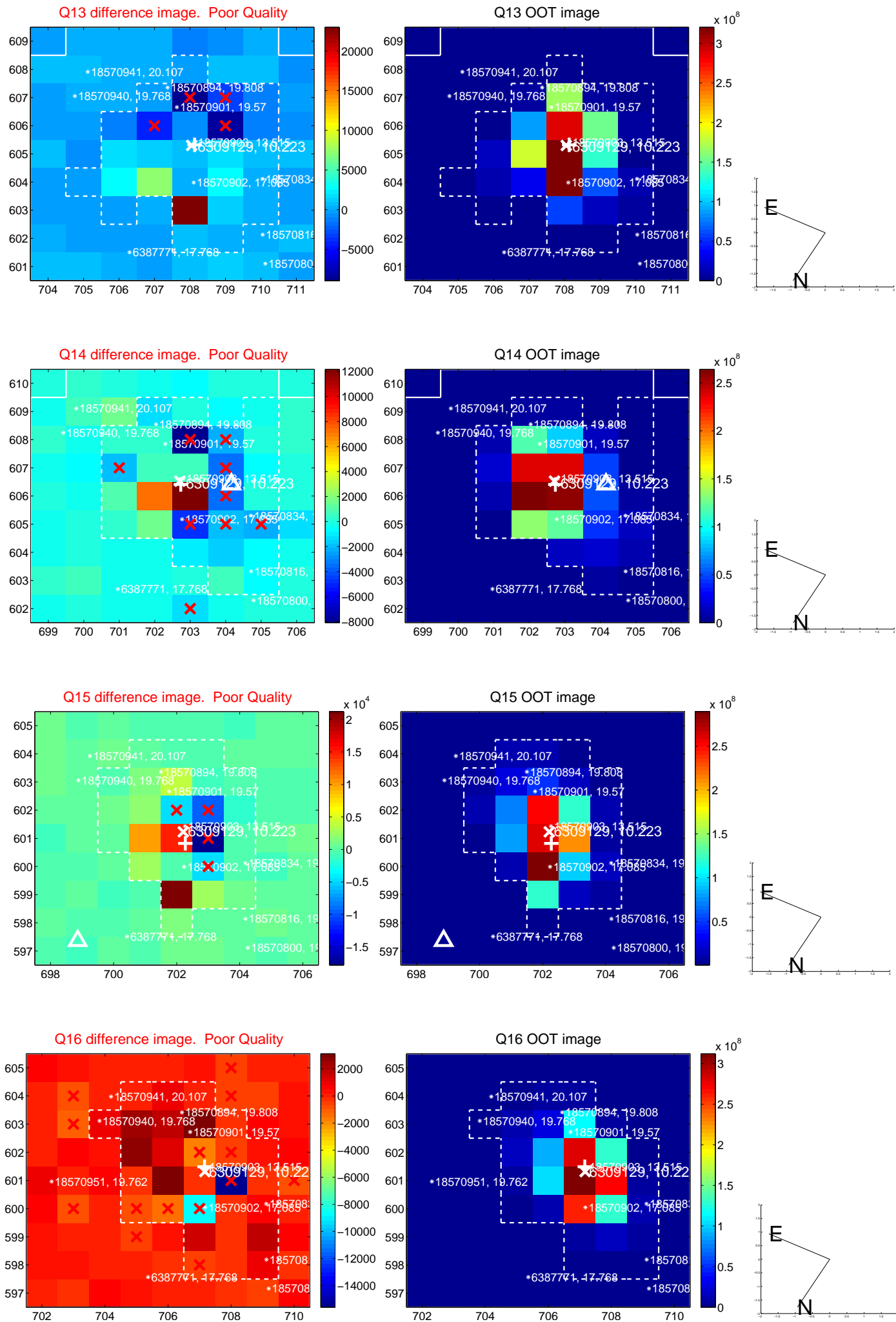
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



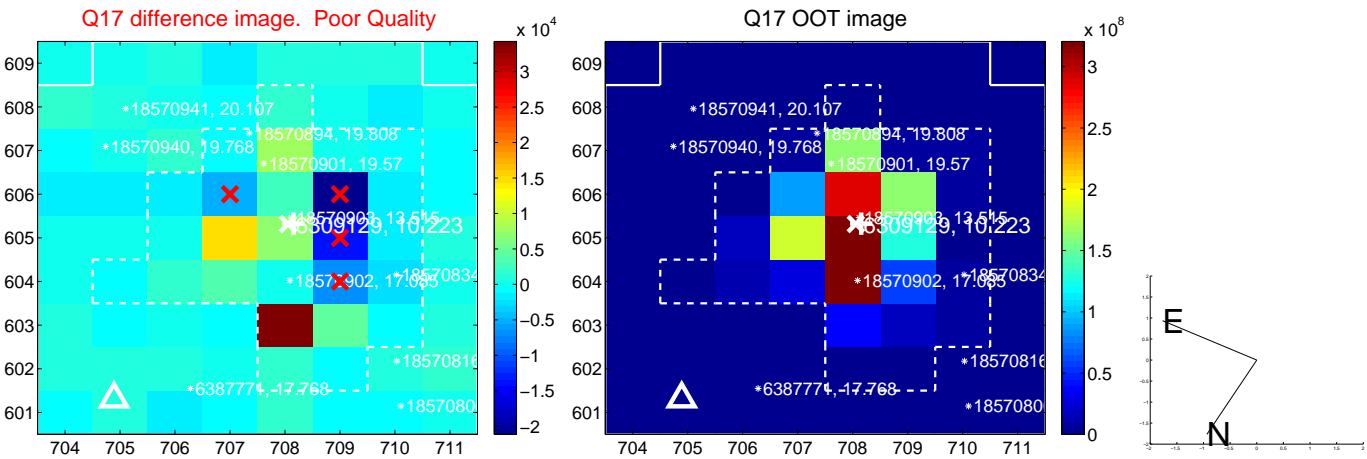
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

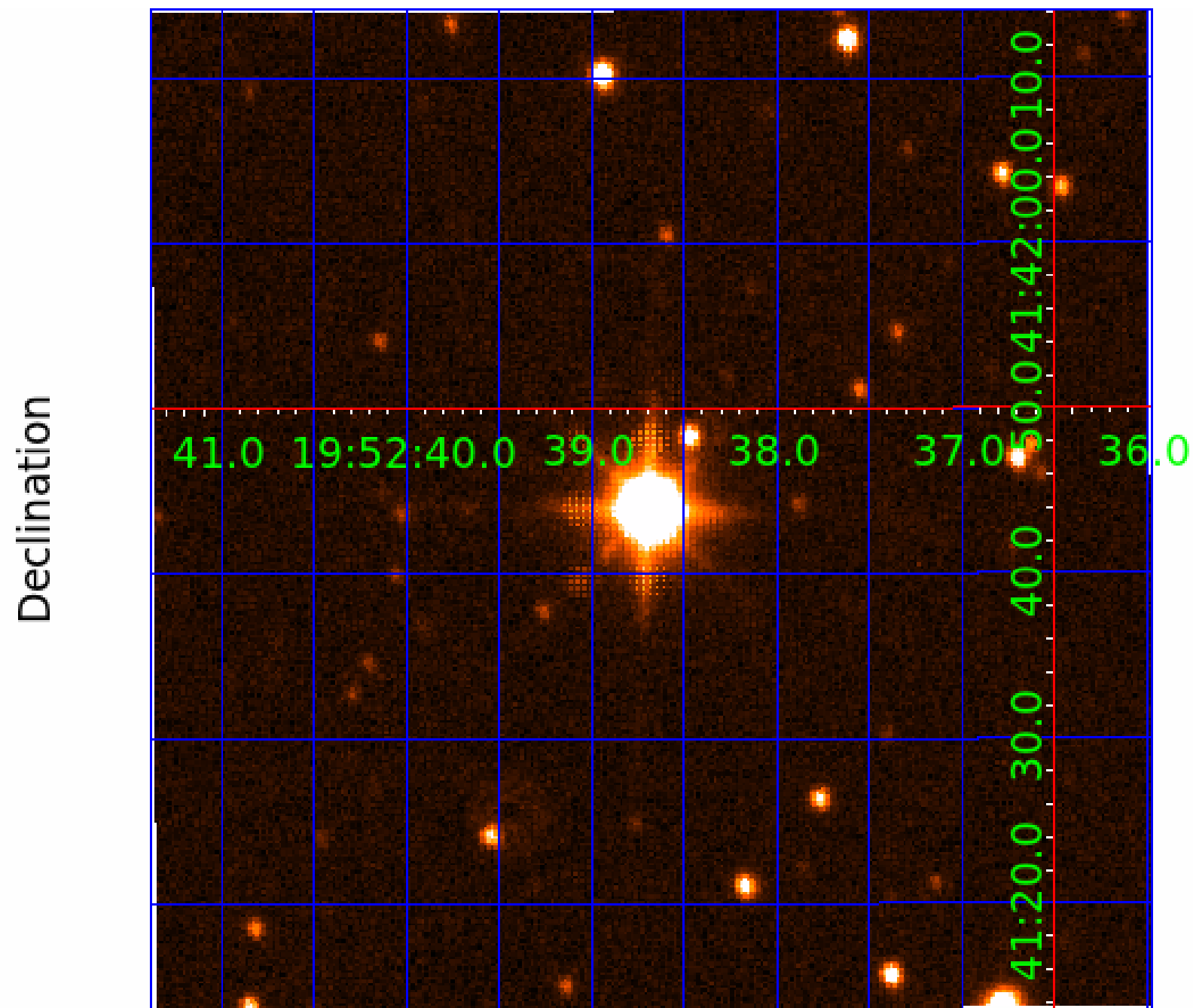


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image



KIC 006309129

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})
006309129-01	OBS	No	6.215682	137.009665	0.2	1.583	9.0	0.1	3.72	7733	0.16	6413.52
006309129-02	OBS	No	6.215999	136.312880	17.8	12.500	9.1	-1.0	3.72	7733	1.58	6413.08
006309129-03	OBS	No	6.217501	133.863074	12.1	23.557	9.1	9.9	3.72	7733	1.50	6411.02

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006309129-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
006309129-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_SATURATED
006309129-03	OBS	FP	0.00	1	0	0	0	LPP_DV—SAME_NTL_PERIOD—CENT_SATURATED

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

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

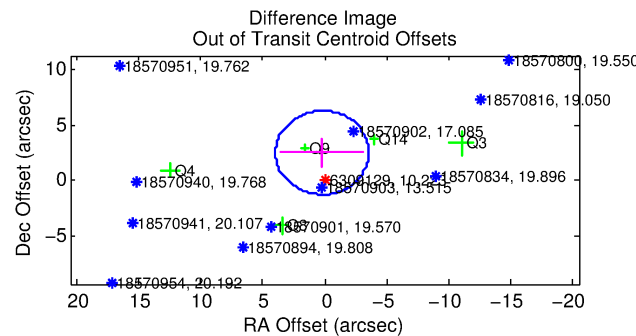
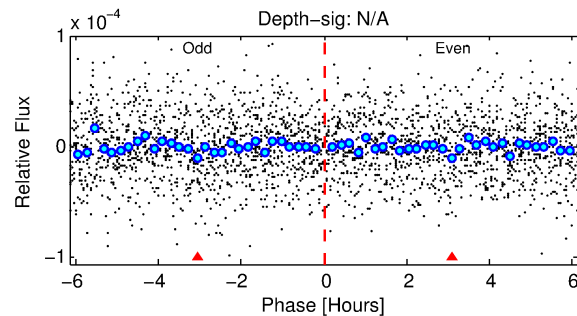
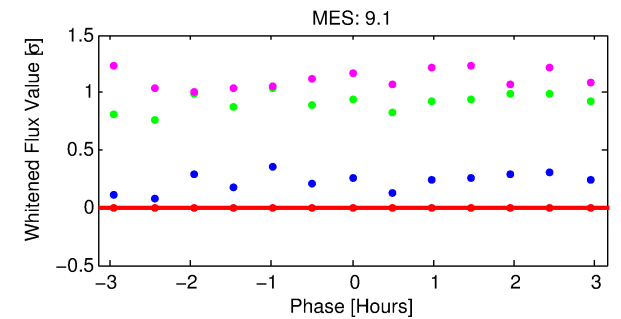
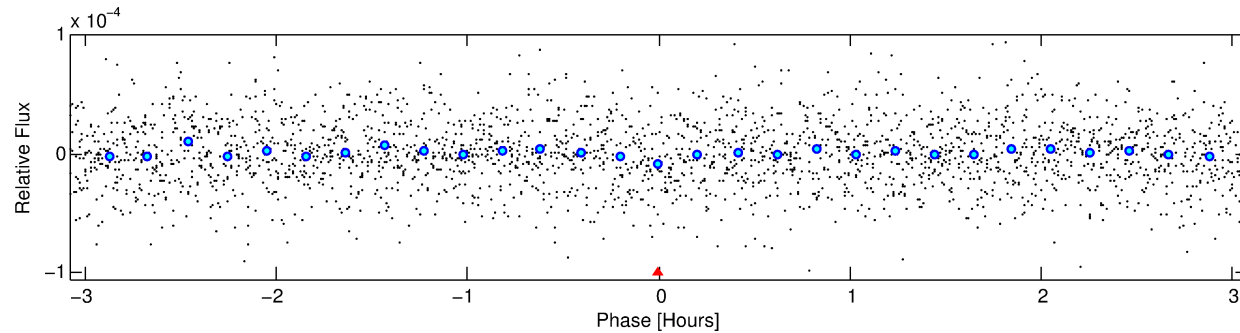
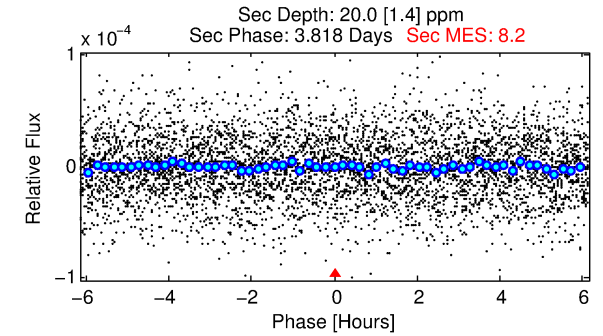
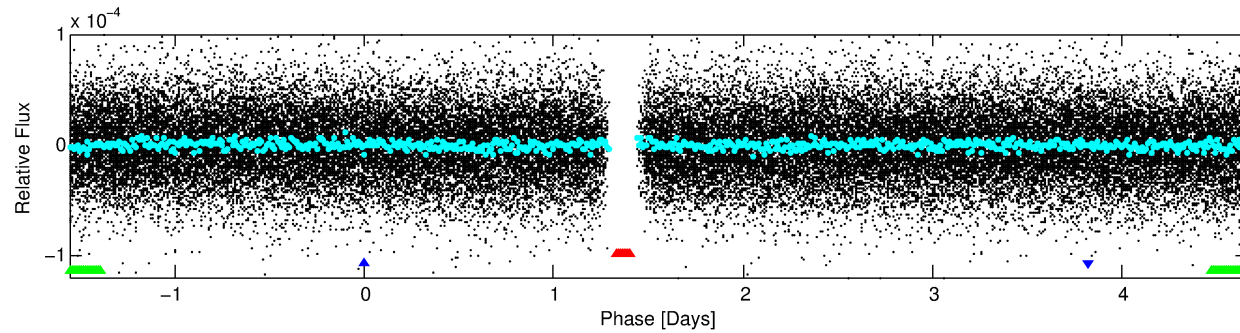
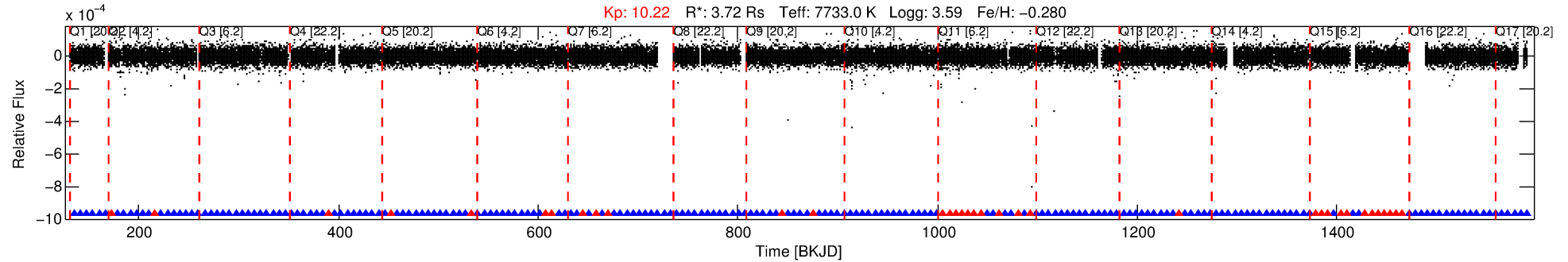
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006309129-02

No Significant Match Found

DV One-Page Summary

KIC: 6309129 Candidate: 2 of 3 Period: 6.216 d



TPS TCE Results:

Period = 6.21600 d
Epoch = 136.3129 BKJD

DV fit results are unavailable

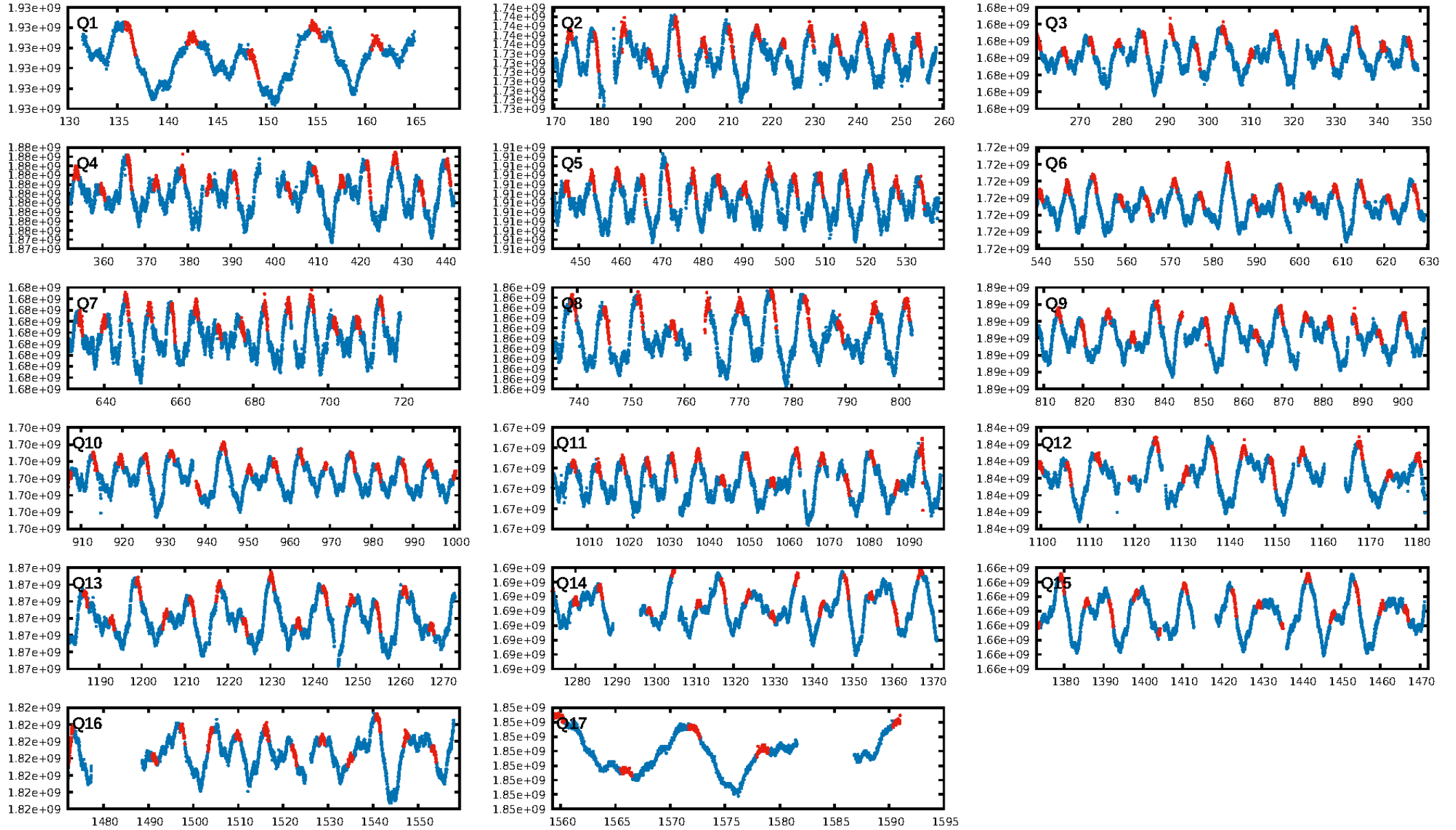
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: 0.1% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.25e-16
RollingBand-fgt: 0.83 [167/202]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 2.541 arcsec [2.03σ]
KicOffset-rm: 2.349 arcsec [1.85σ]
OotOffset-st: 1/1/2/1 [5]
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DiffImageOverlap-fno: 1.00 [17/17]

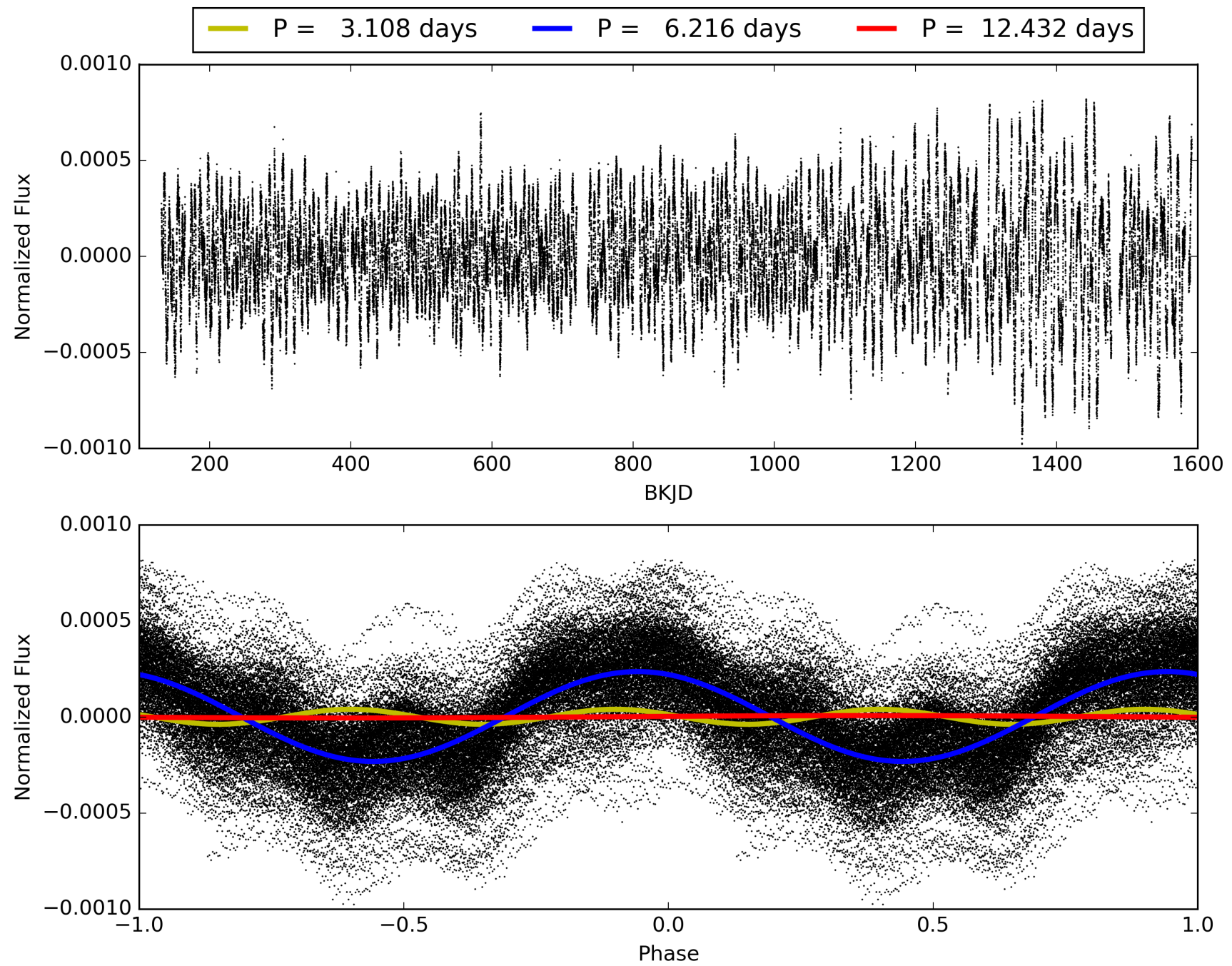
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 04:09:57 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006309129-02, PDC Light Curves

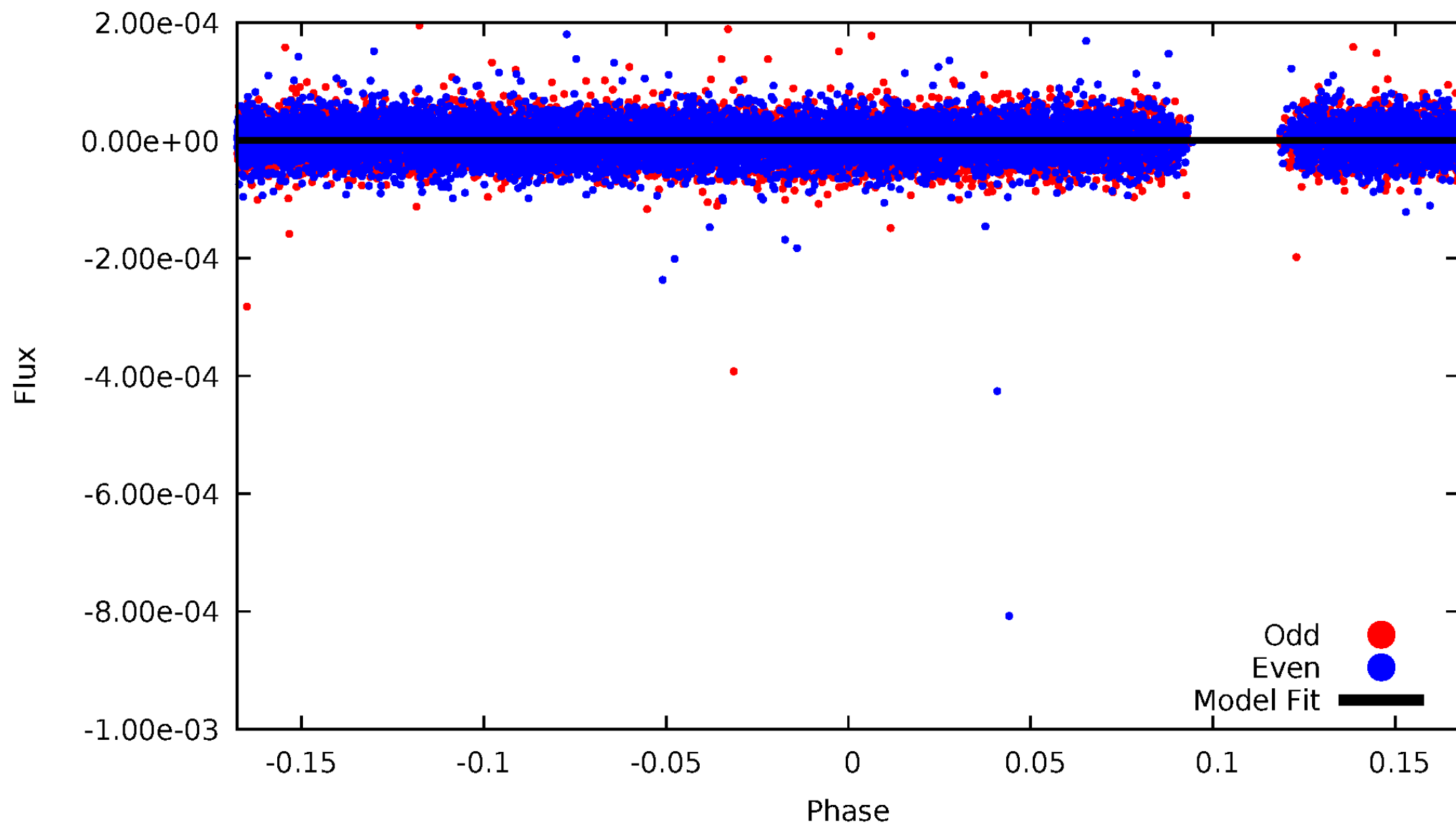


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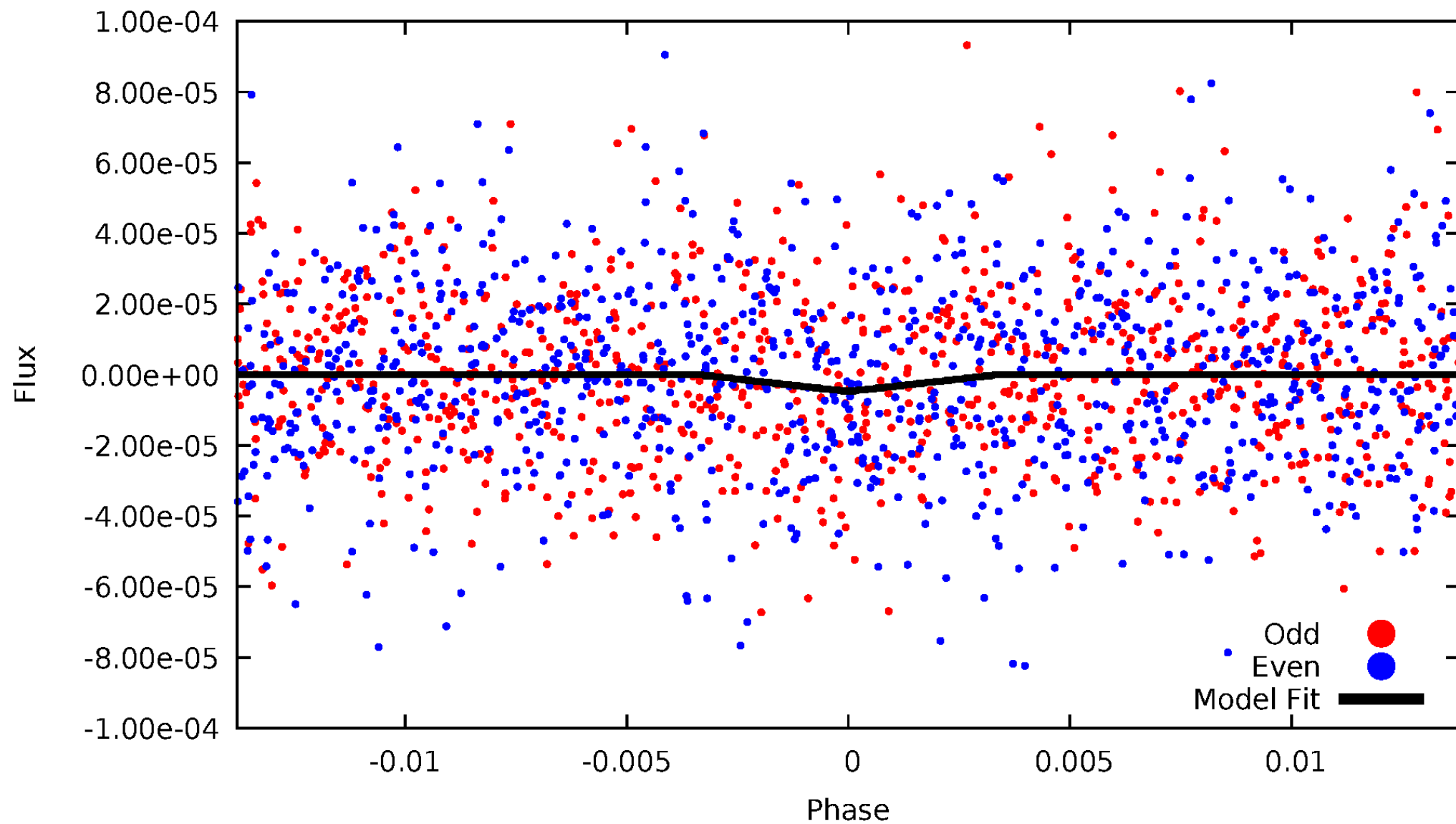
DV Odd/Even

TCE 006309129-02



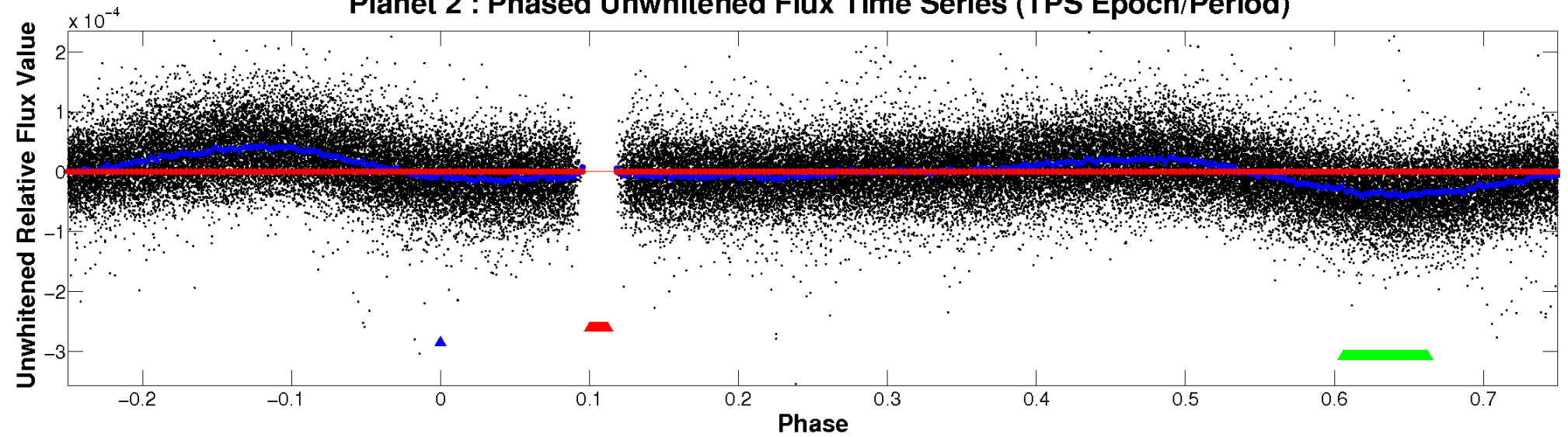
ALT Odd/Even

TCE 006309129-02

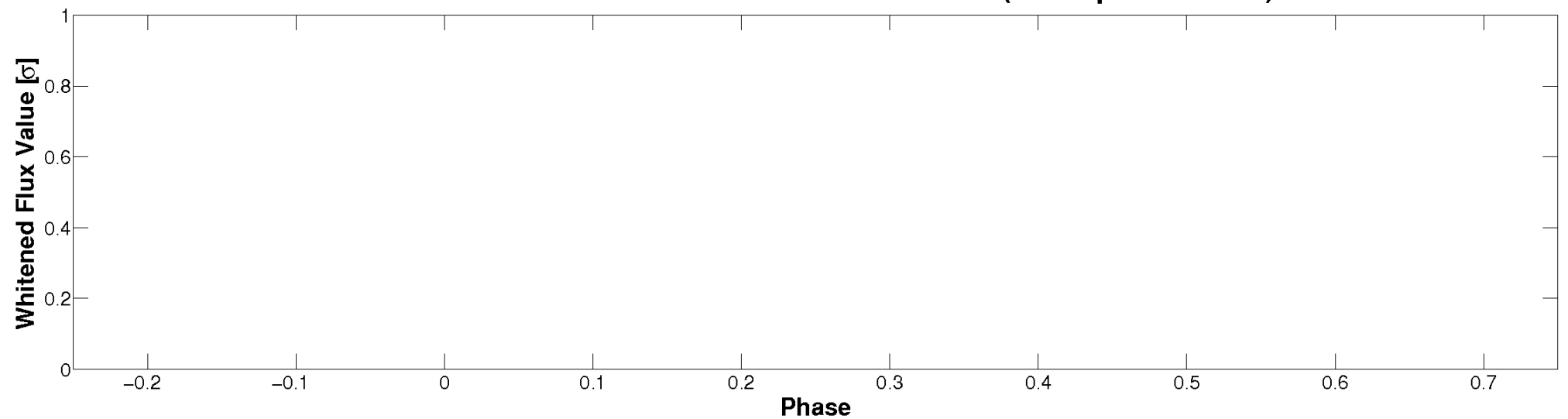


Non-Whitened Vs. Whitened Light Curve

Planet 2 : Phased Unwhitened Flux Time Series (TPS Epoch/Period)

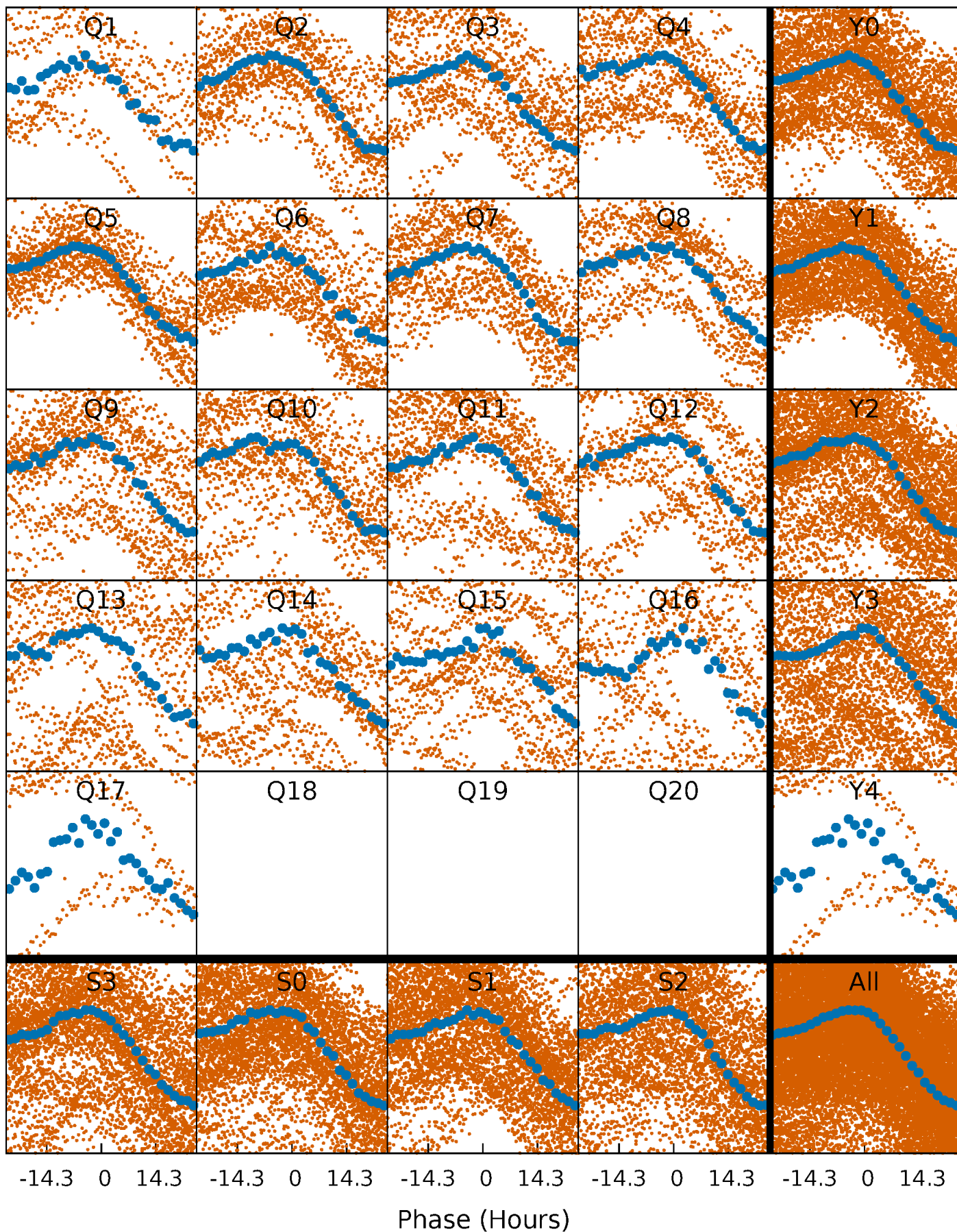


Planet 2 : Phased Whitened Flux Time Series (TPS Epoch/Period)



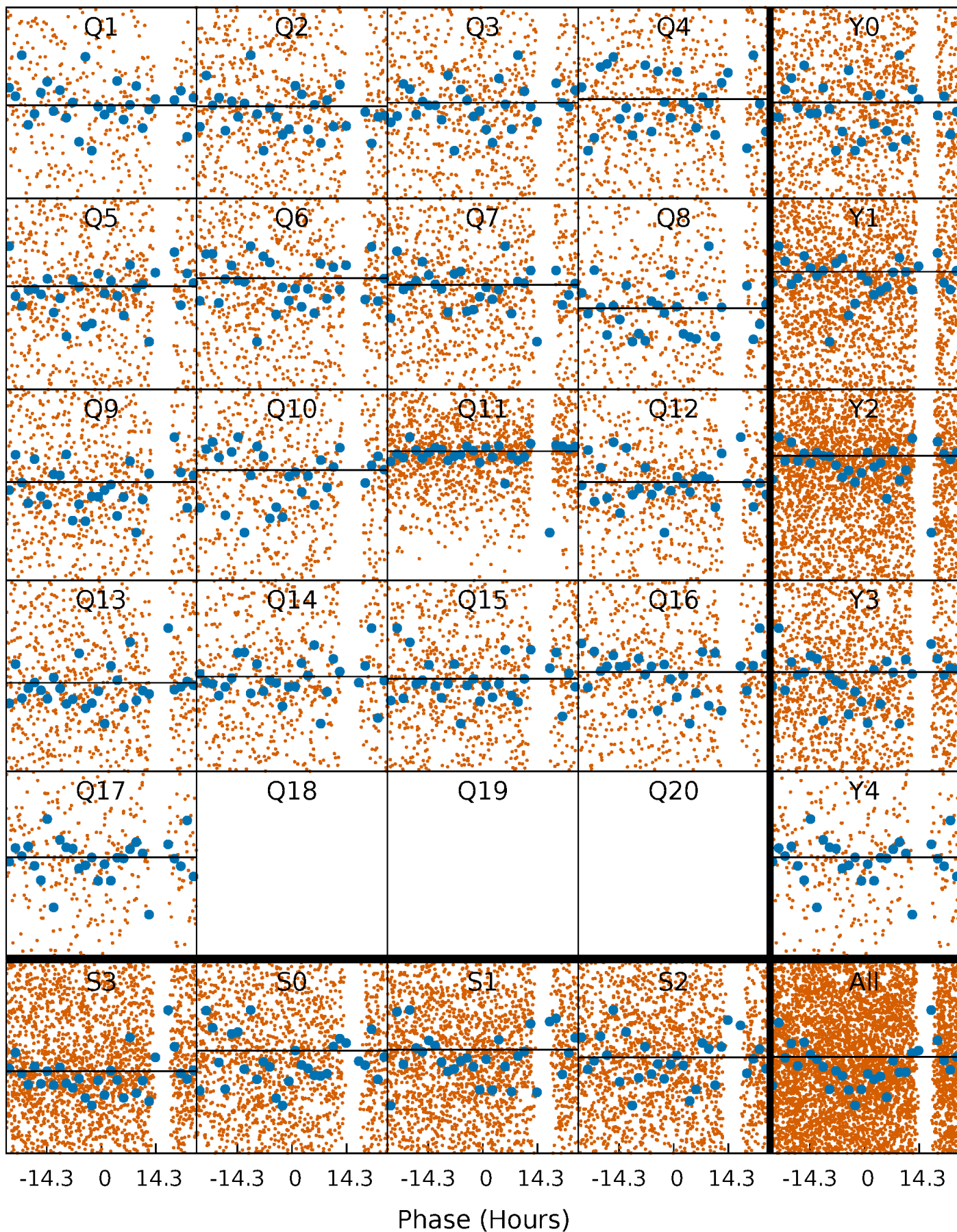
PDC Quarter-Phased Transit Curves

TCE 006309129-02 P= 6.215999 Days $T_0=136.312880$ (BKJD)



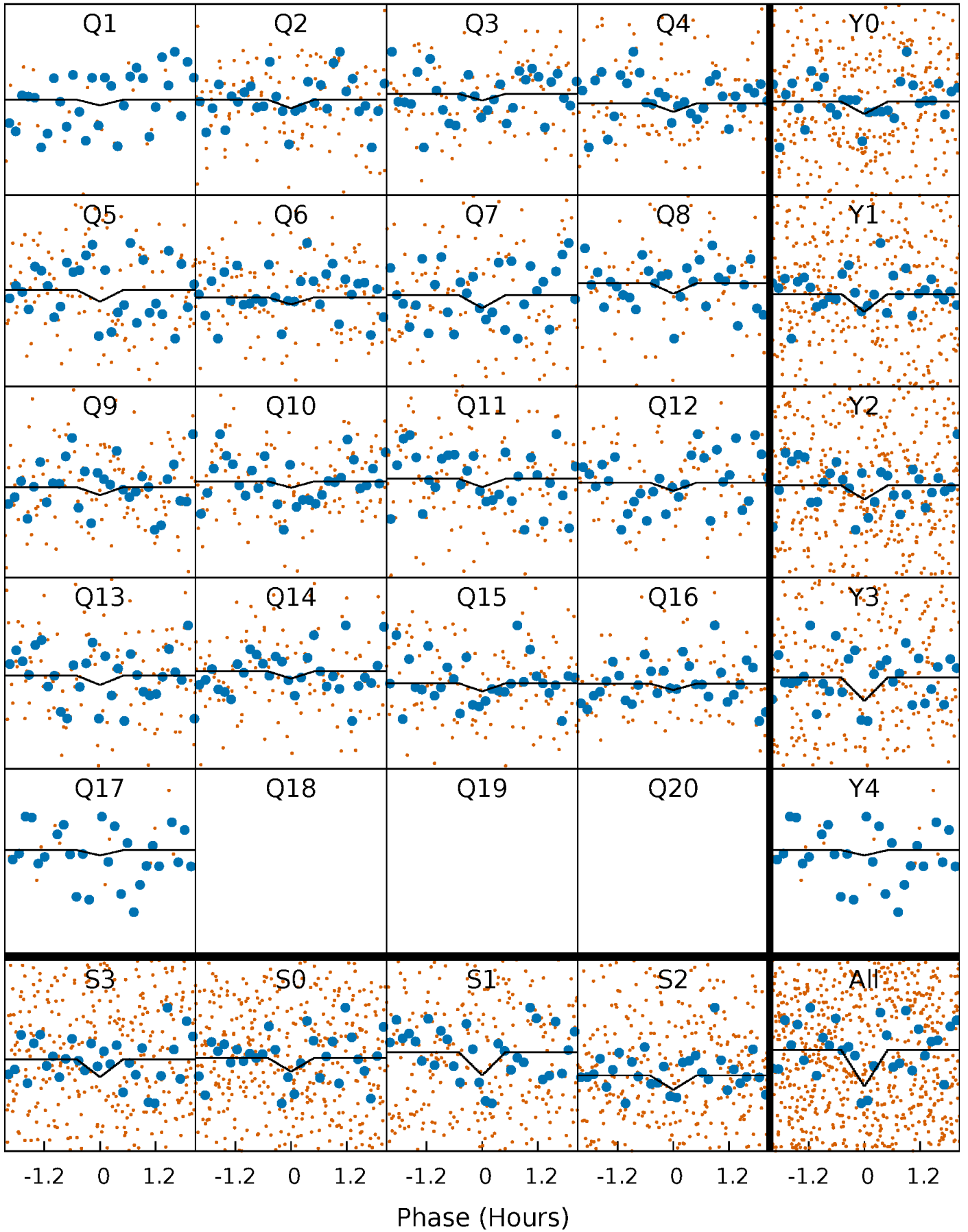
DV Quarter-Phased Transit Curves

TCE 006309129-02 P= 6.215999 Days $T_0=136.312880$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

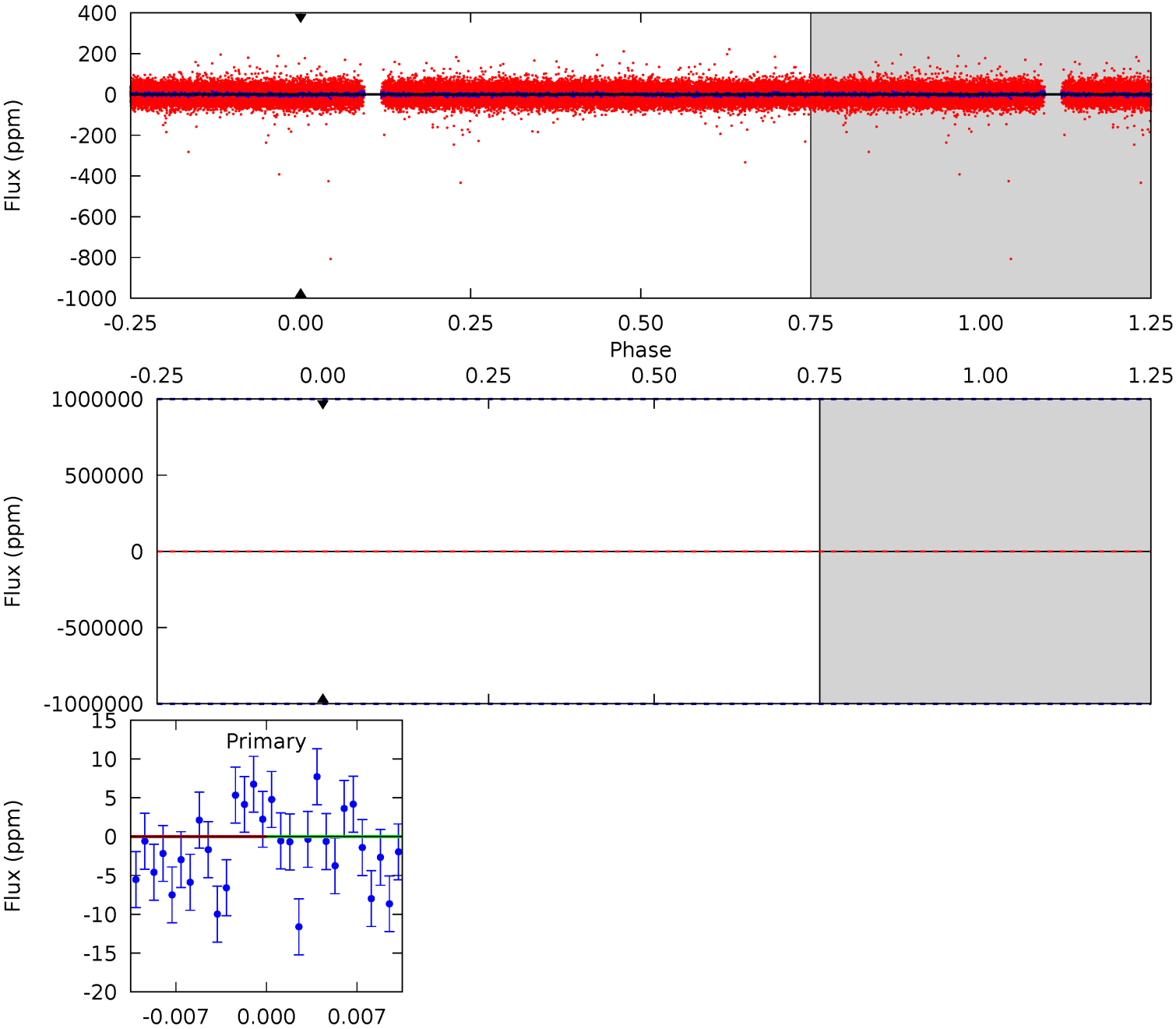
TCE 006309129-02 P= 6.215999 Days $T_0=135.606181$ (BKJD)



DV Model-Shift Uniqueness Test

006309129-02, P = 6.215999 Days, E = 130.096881 Days

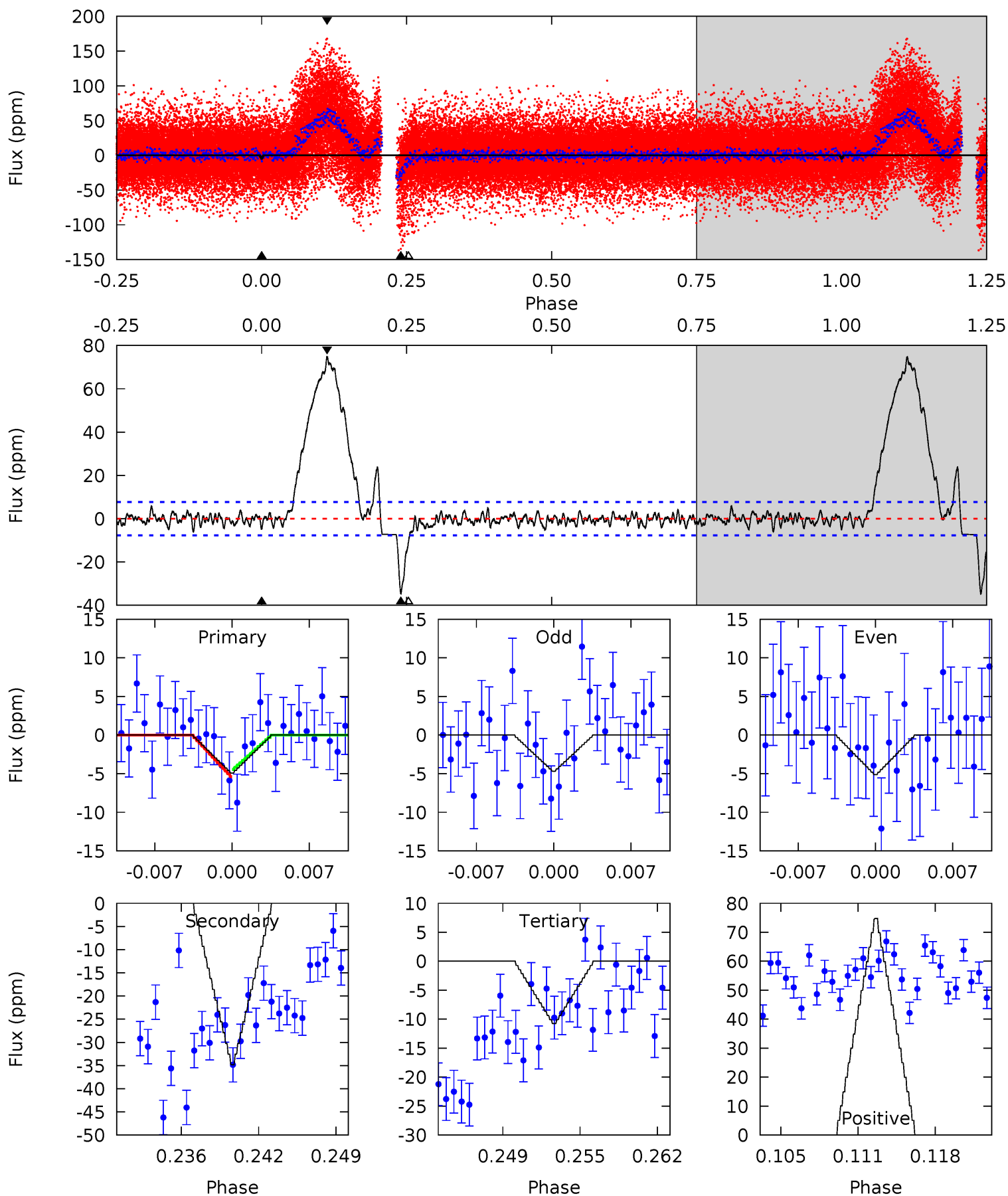
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

006309129-02, P = 6.215999 Days, E = 129.390182 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.27	23.2	7.18	49.8	5.11	2.72	11.0	-3.91	-46.5	16.0	-26.6	0.15	0.92	0.68	0.30



Stellar Parameters For KIC 006309129

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7733^{+212}_{-319}	$3.594^{+0.567}_{-0.063}$	$-0.280^{+0.250}_{-0.300}$	$3.717^{+0.513}_{-2.052}$	$1.980^{+0.094}_{-0.530}$	$0.054^{+0.394}_{-0.011}$
	+3%/-4%	+16%/-2%	+89%/-107%	+14%/-55%	+5%/-27%	+725%/-21%
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 006309129-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 1000000	$22.98^{+25.97}_{-16.57}$	3028^{+234}_{-390}	-5434^{+53238}_{-44488}	$-8.522^{+1274.031}_{-1177.596}$
Alt.	-35 ± 2	$22.40^{+28.74}_{-16.04}$	3019^{+236}_{-429}	-2332^{+6627}_{-688}	$0.256^{+3.068}_{-0.206}$

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 $A_{\text{obs}} \gg 1.0$

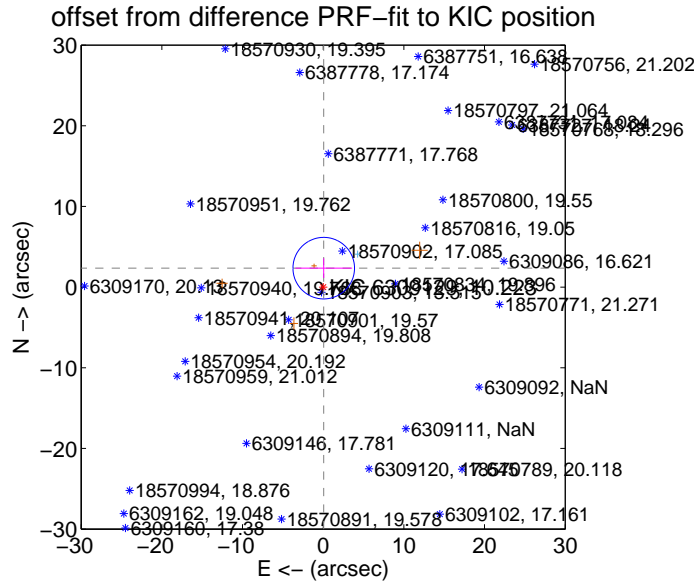
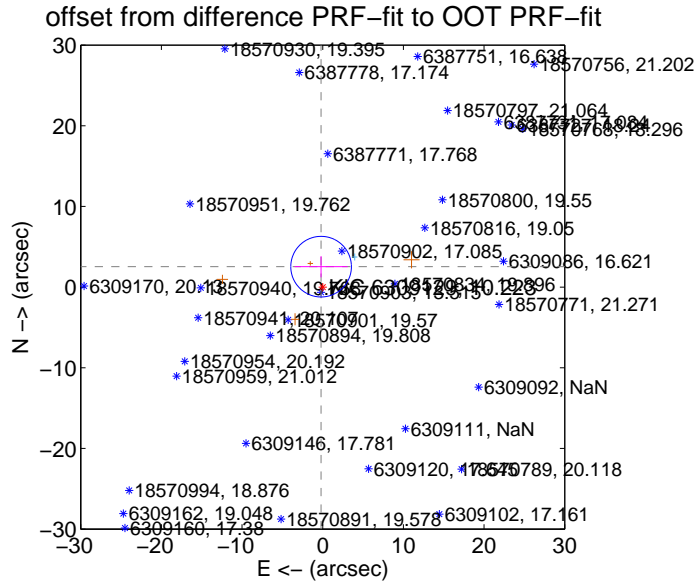
DV Centroid Data

Supplemental centroid analysis for 006309129-02. **Kepler magnitude: 10.22.** Transit SNR -1.00

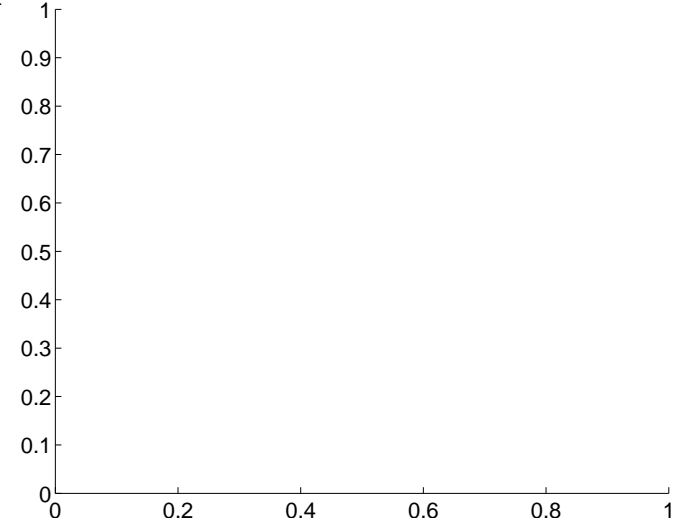
There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.47 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.541 ± 1.253	2.03	0.200 ± 3.287	2.533 ± 1.314
PRF-fit source offset from KIC position	2.349 ± 1.272	1.85	-0.068 ± 3.517	2.348 ± 1.216
photometric centroid source offset	—	—	—	—

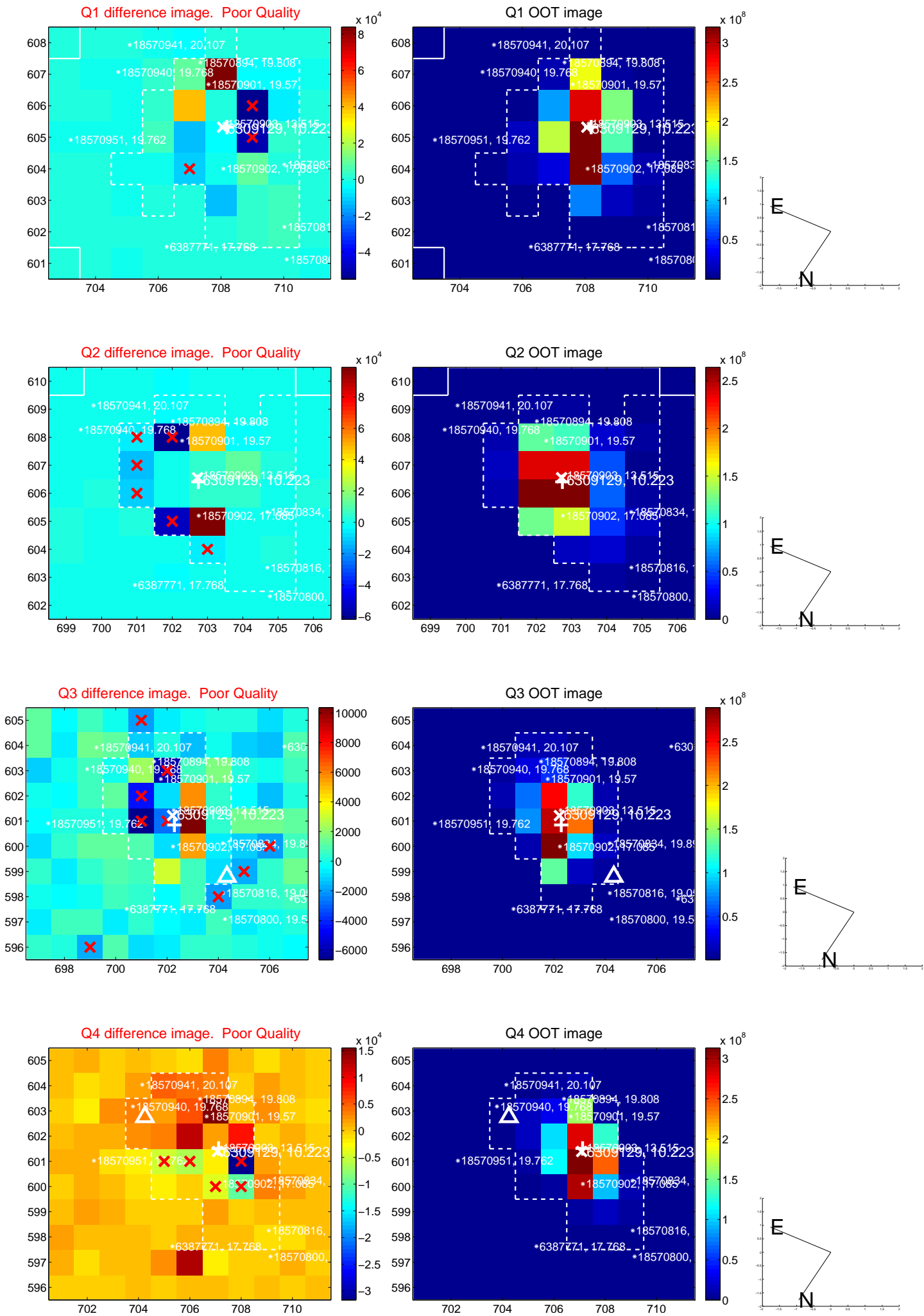


There are no photometric centroids

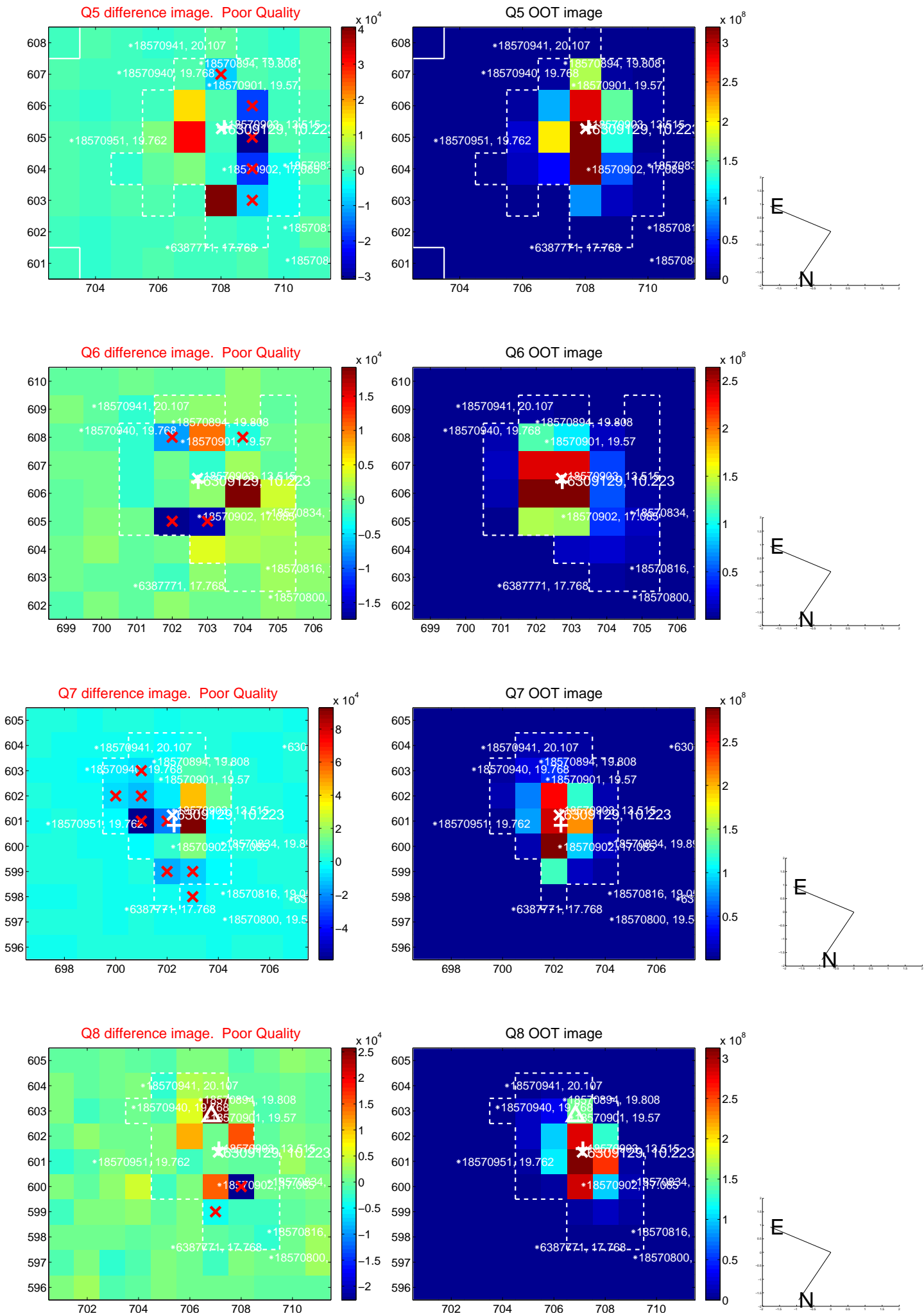


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

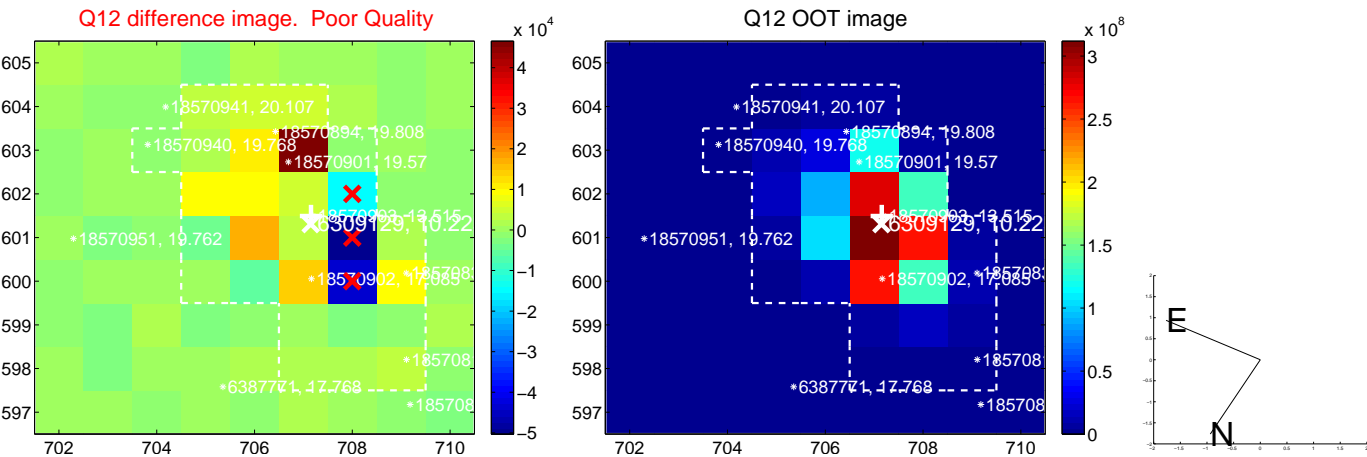
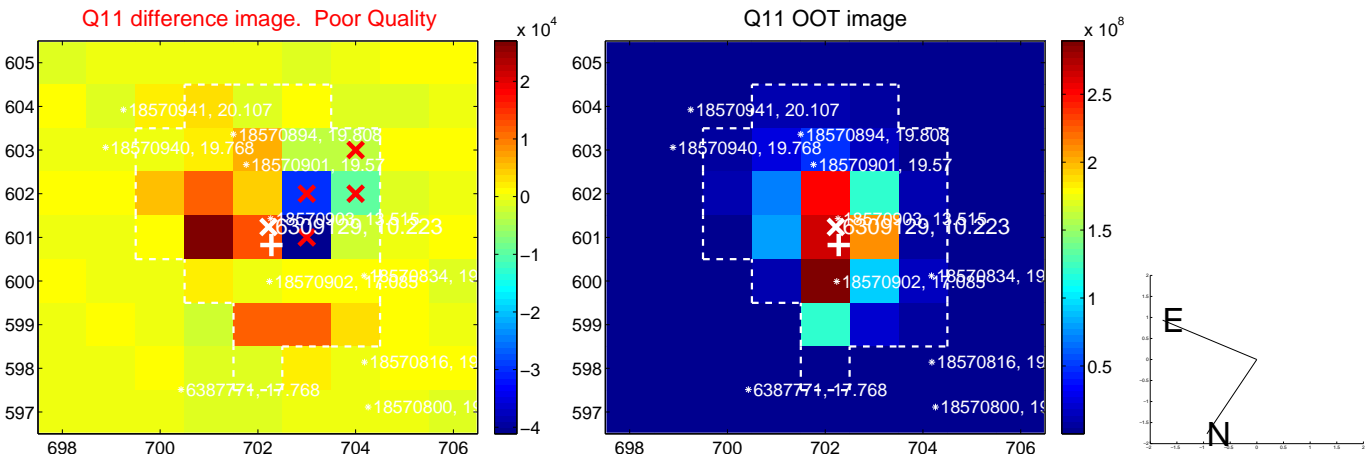
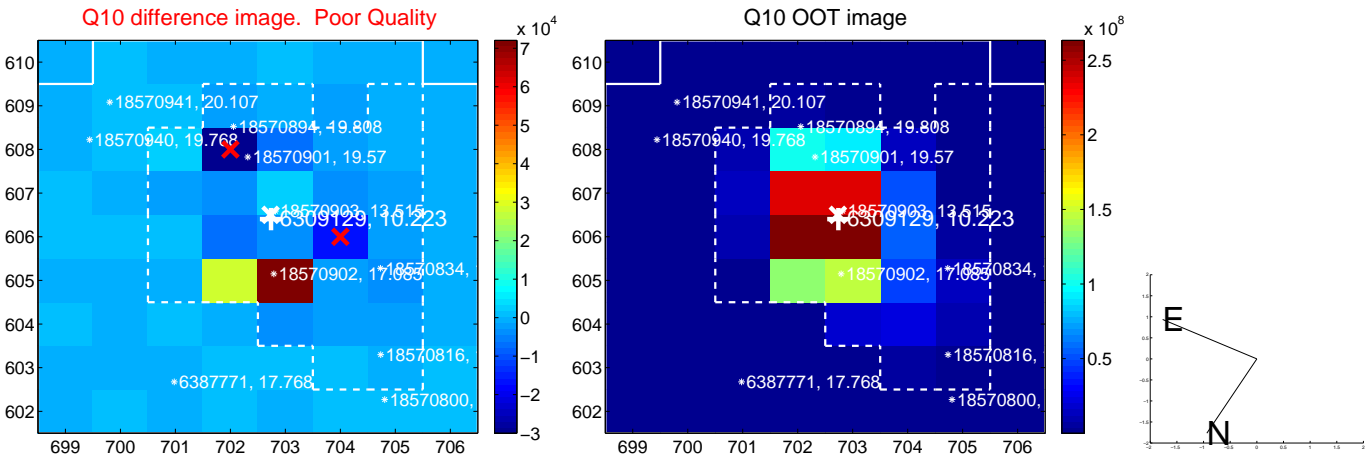
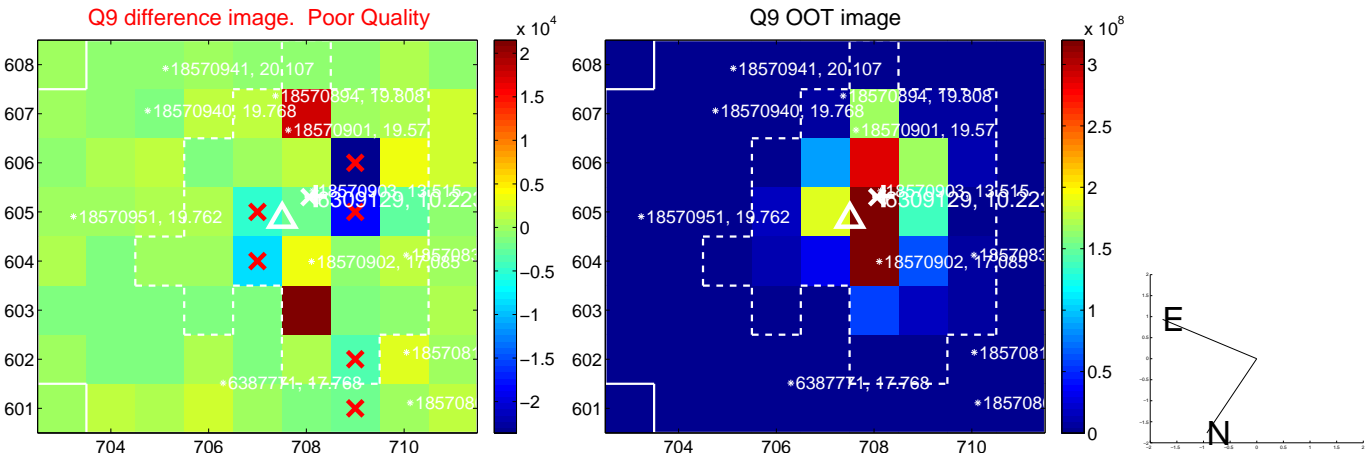
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



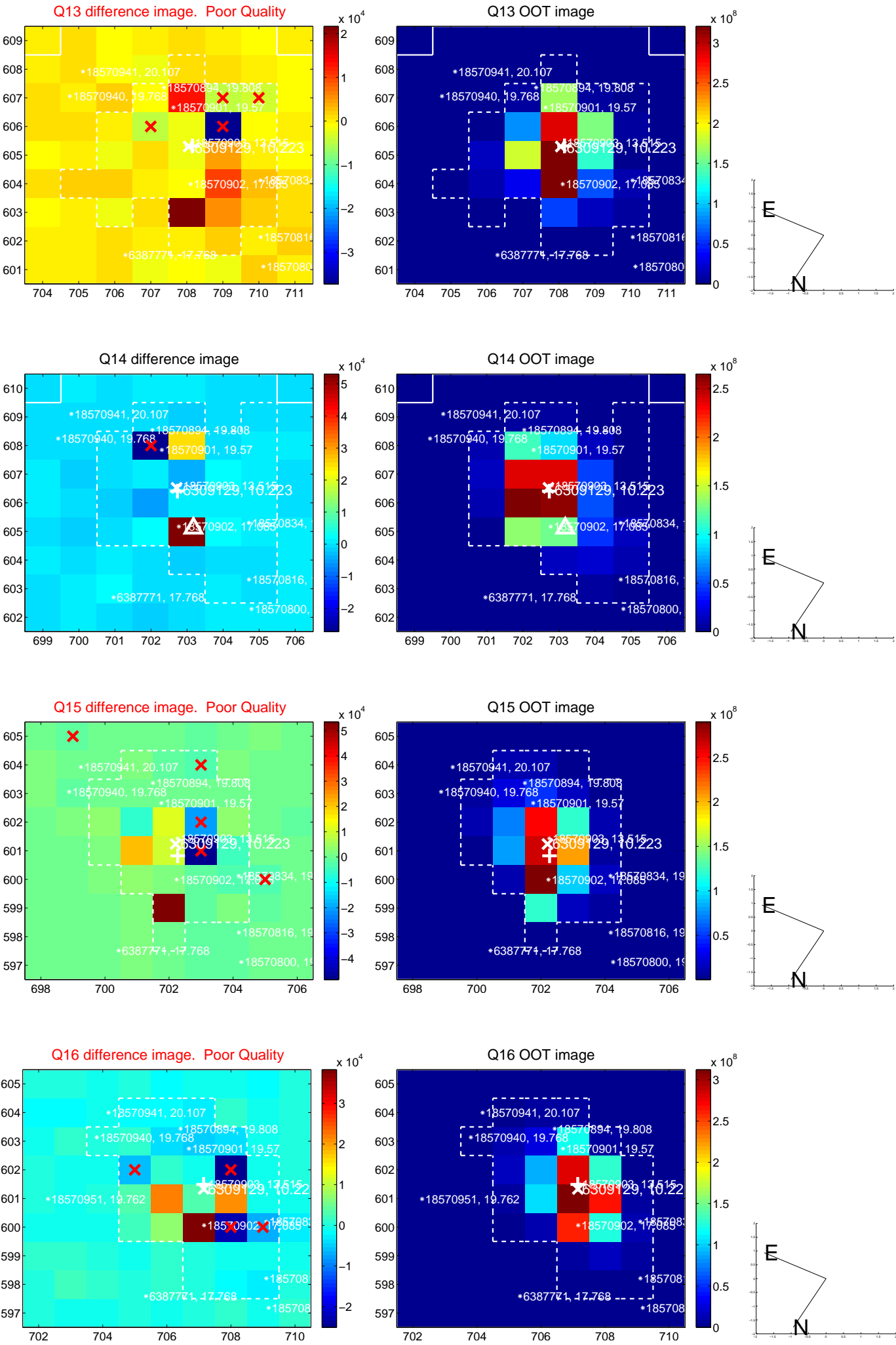
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



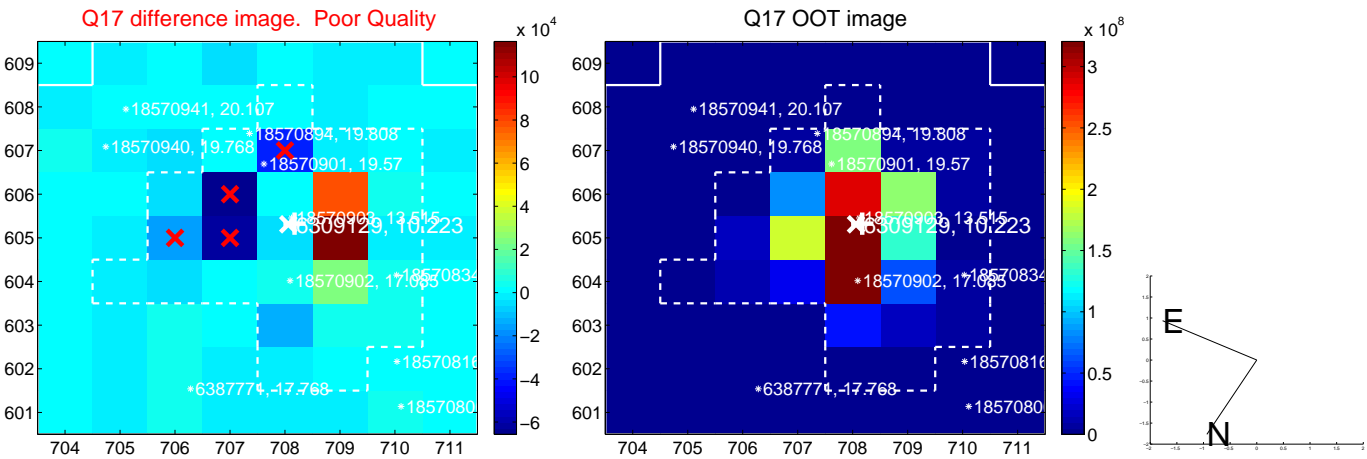
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

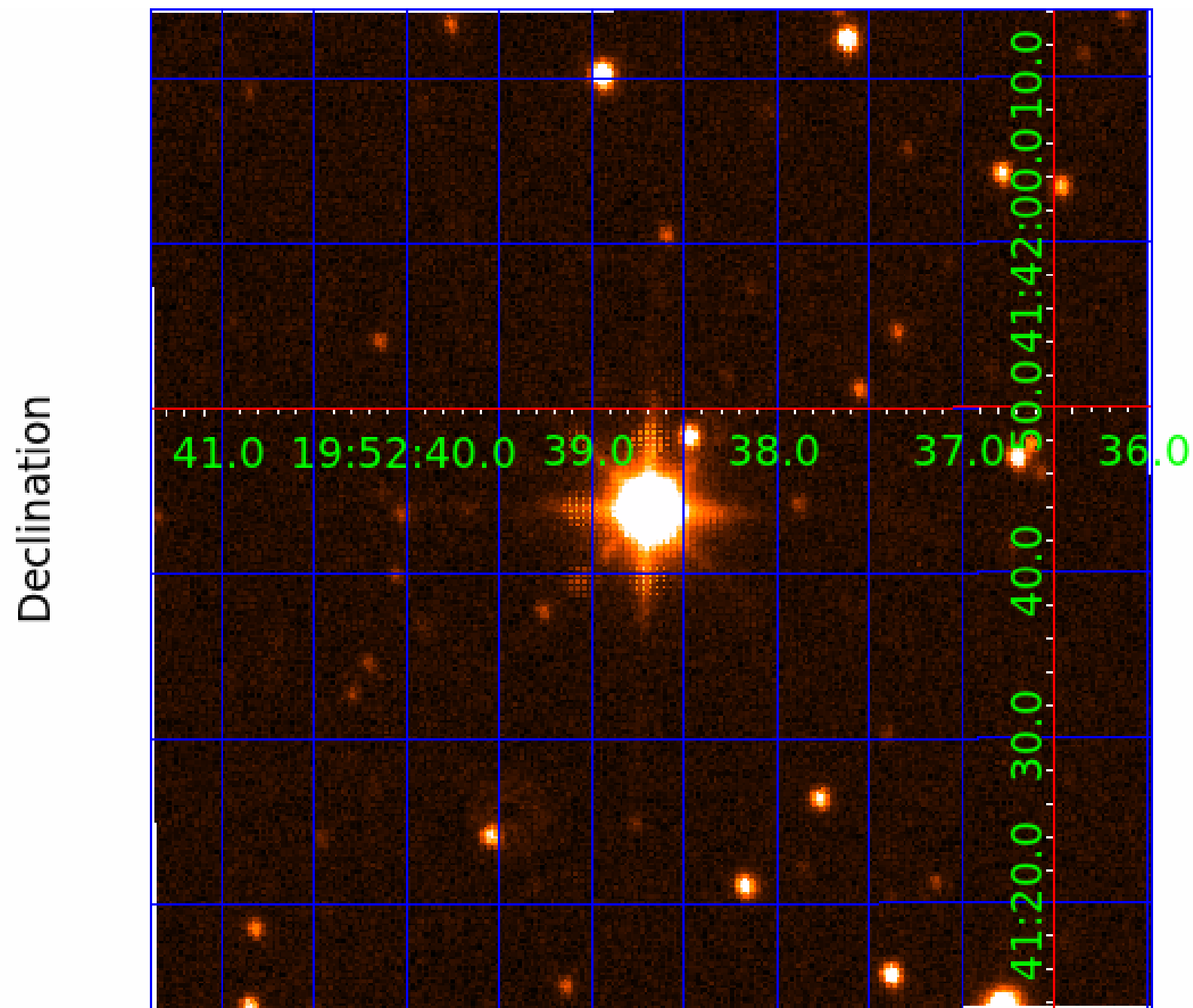


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image



KIC 006309129

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})
006309129-01	OBS	No	6.215682	137.009665	0.2	1.583	9.0	0.1	3.72	7733	0.16	6413.52
006309129-02	OBS	No	6.215999	136.312880	17.8	12.500	9.1	-1.0	3.72	7733	1.58	6413.08
006309129-03	OBS	No	6.217501	133.863074	12.1	23.557	9.1	9.9	3.72	7733	1.50	6411.02

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006309129-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_SATURATED
006309129-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_SATURATED
006309129-03	OBS	FP	0.00	1	0	0	0	LPP_DV—SAME_NTL_PERIOD—CENT_SATURATED

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

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

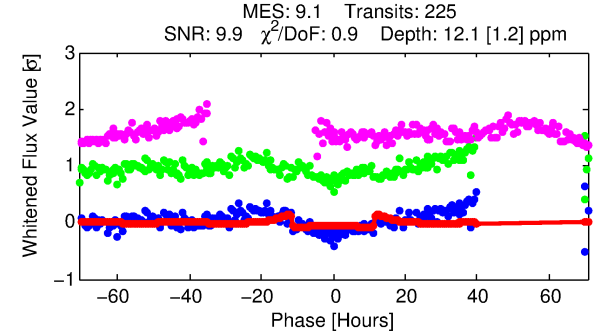
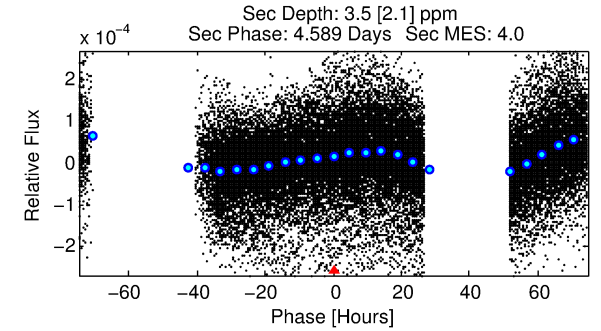
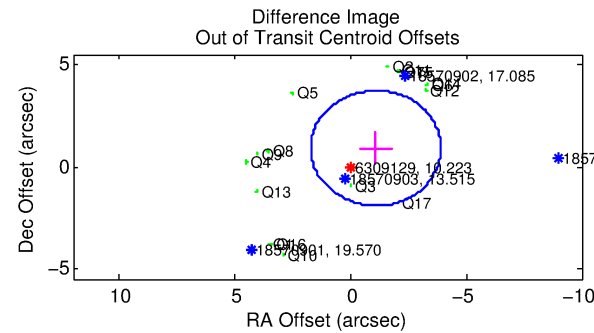
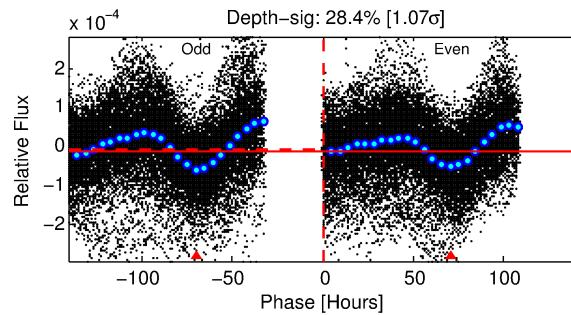
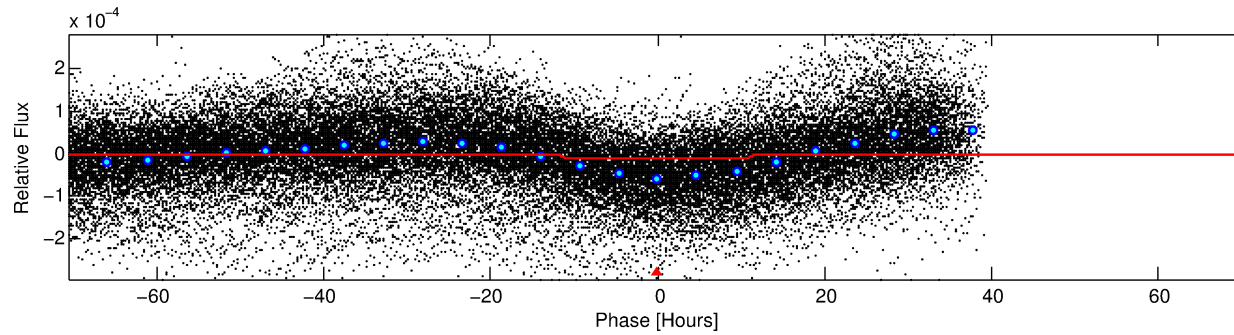
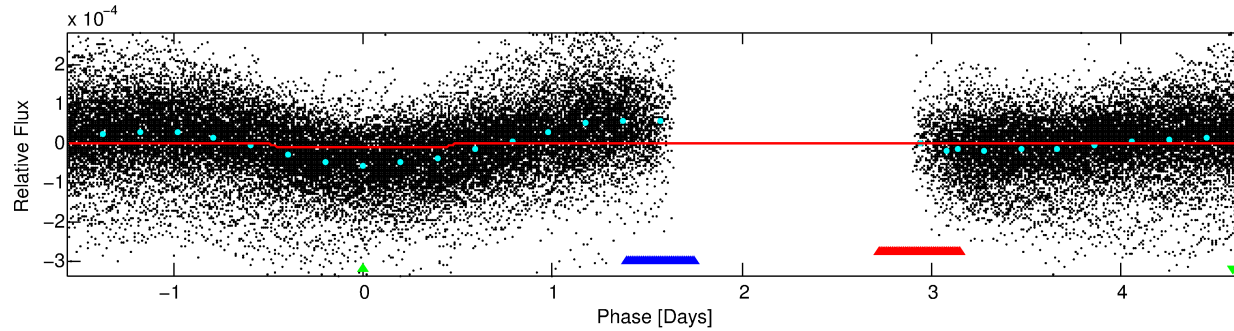
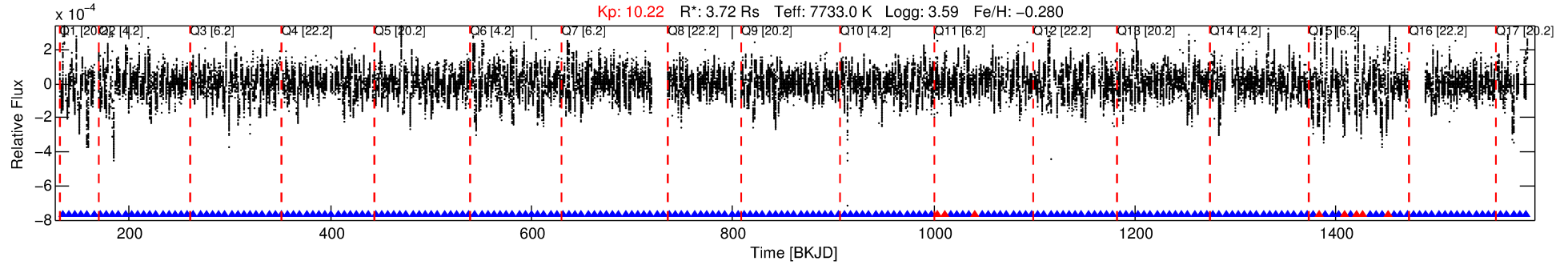
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006309129-03

No Significant Match Found

DV One-Page Summary

KIC: 6309129 Candidate: 3 of 3 Period: 6.218 d



DV Fit Results:

Period = 6.21750 [0.00006] d
Epoch = 133.8631 [0.0072] BKJD
Rp/R* = 0.0037 [0.0003]
a/R* = 1.34 [0.16]
Seff = 6411.02 [6150.02]
Teq = 2282 [547] K
Rp = 1.50 [0.83] Re
a = 0.0831 [0.0474] AU
Ag = 5.99 [6.72] [0.74 σ]
Teffp = 5519 [864] K [3.17 σ]

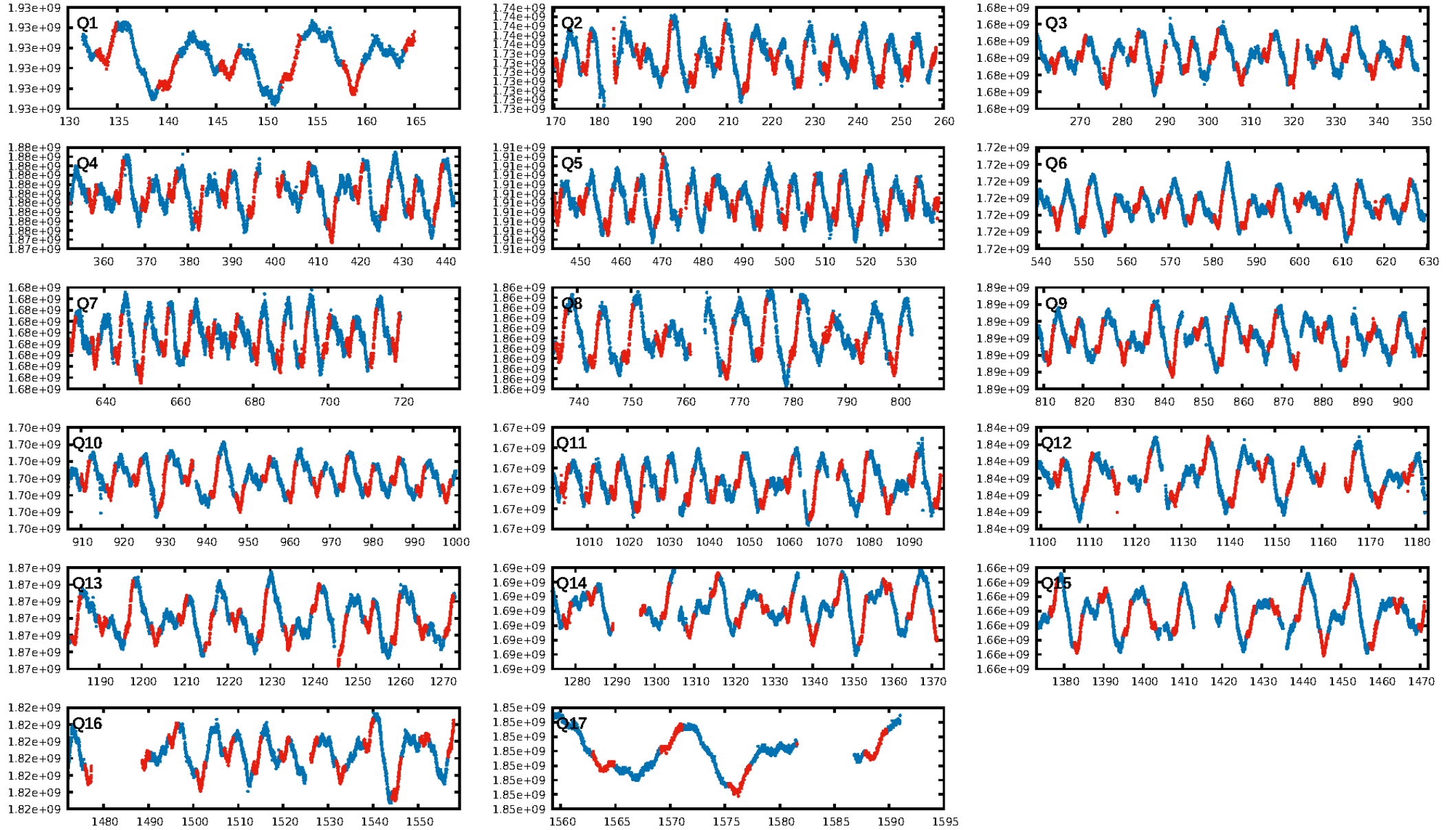
DV Diagnostic Results:

ShortPeriod-sig: 0.1% [0.00 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 3.52e-16
RollingBand-fgt: 0.96 [207/215]
GhostDiagnostic-chr: 0.7673
Centroid-sig: 0.0%
Centroid-so: 9.983 arcsec [5.52 σ]
OotOffset-rm: 1.416 arcsec [1.51 σ]
KicOffset-rm: 1.875 arcsec [1.77 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.53 [9/17]
DiffImageOverlap-fno: 0.35 [6/17]

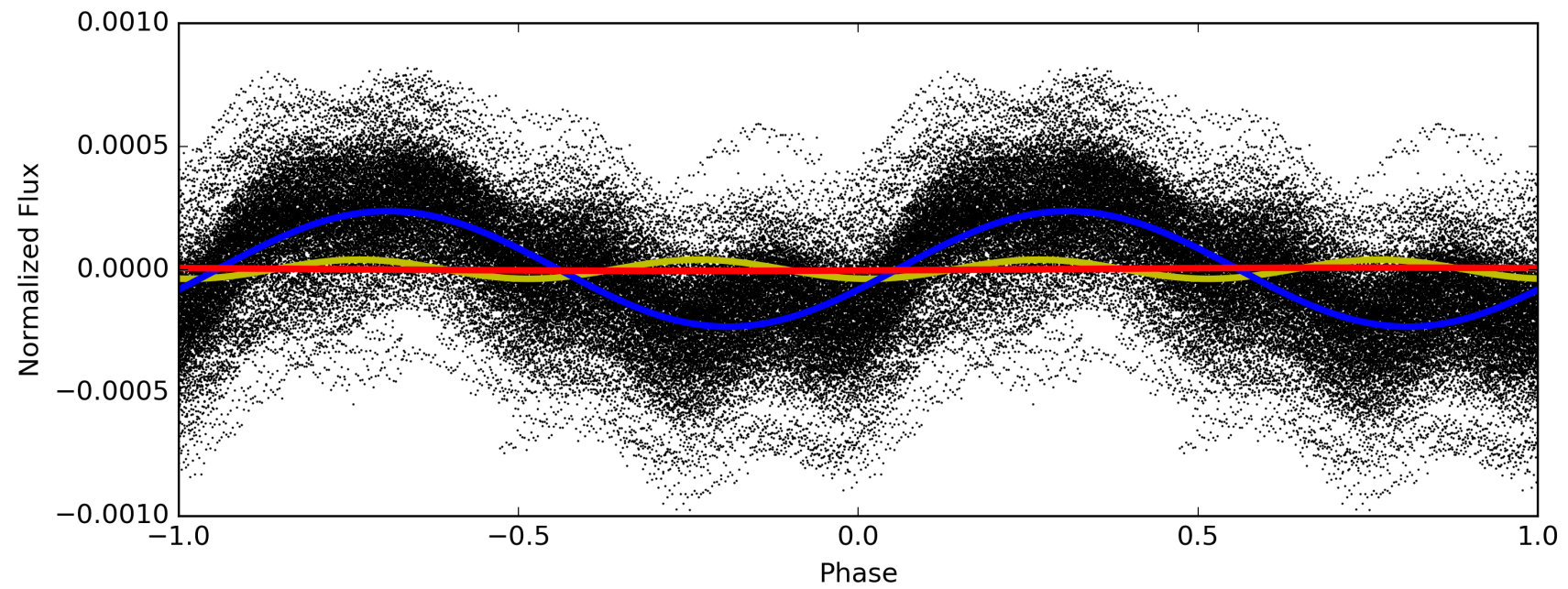
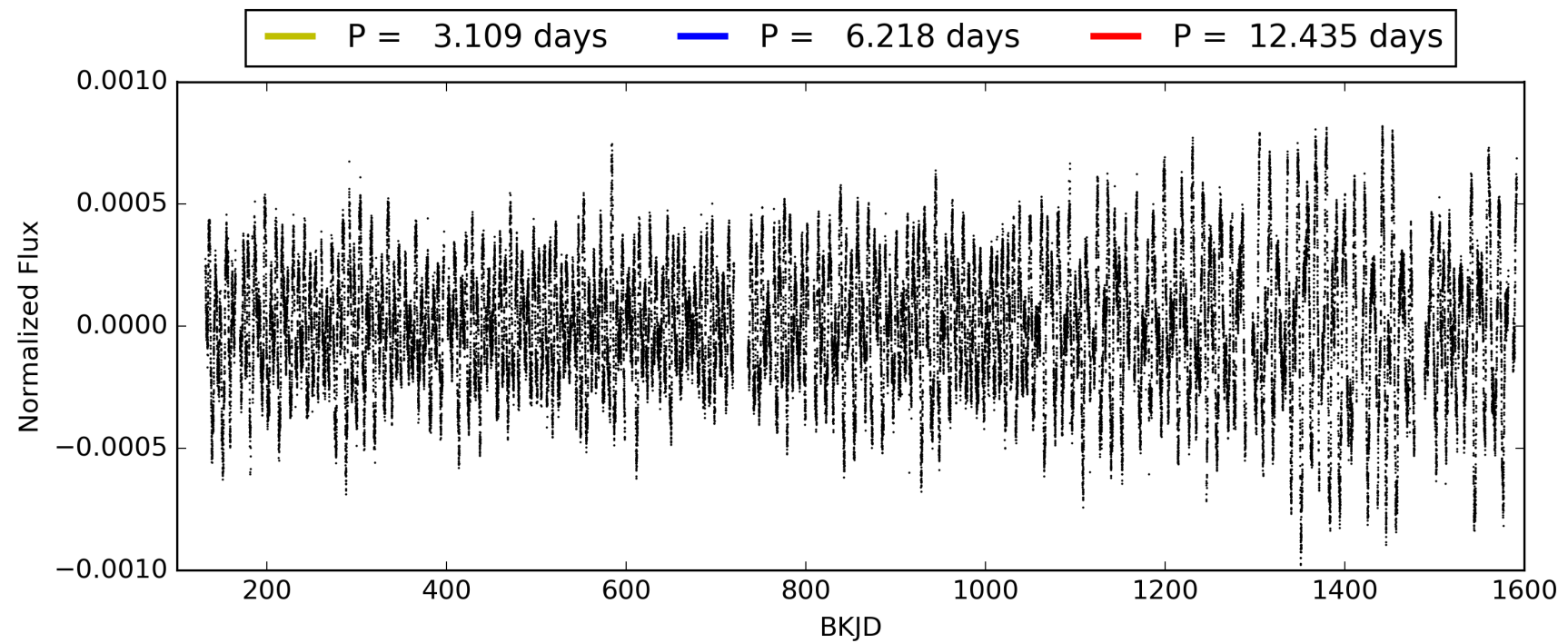
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 04:10:05 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006309129-03, PDC Light Curves

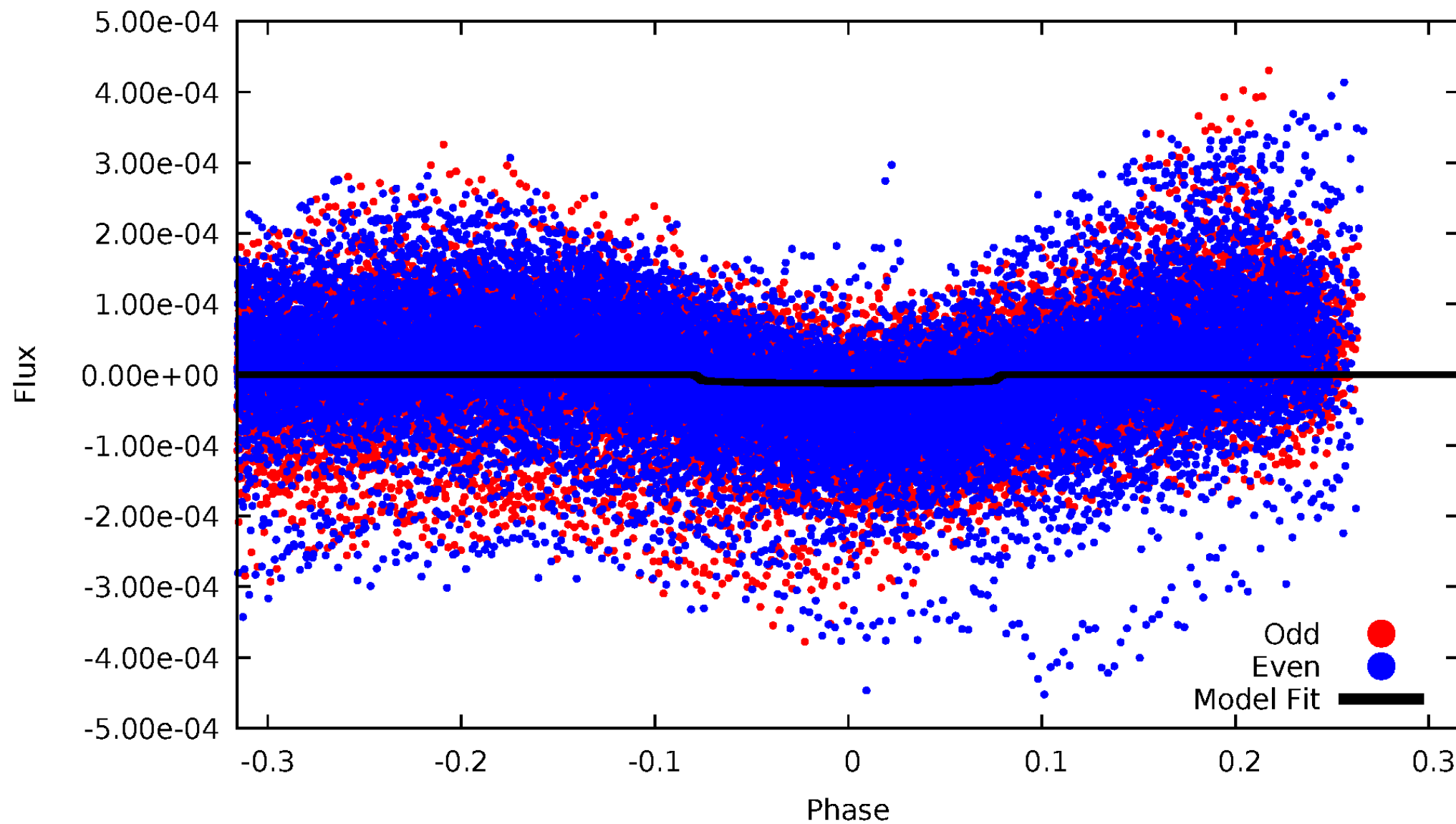


TCE 006309129-03



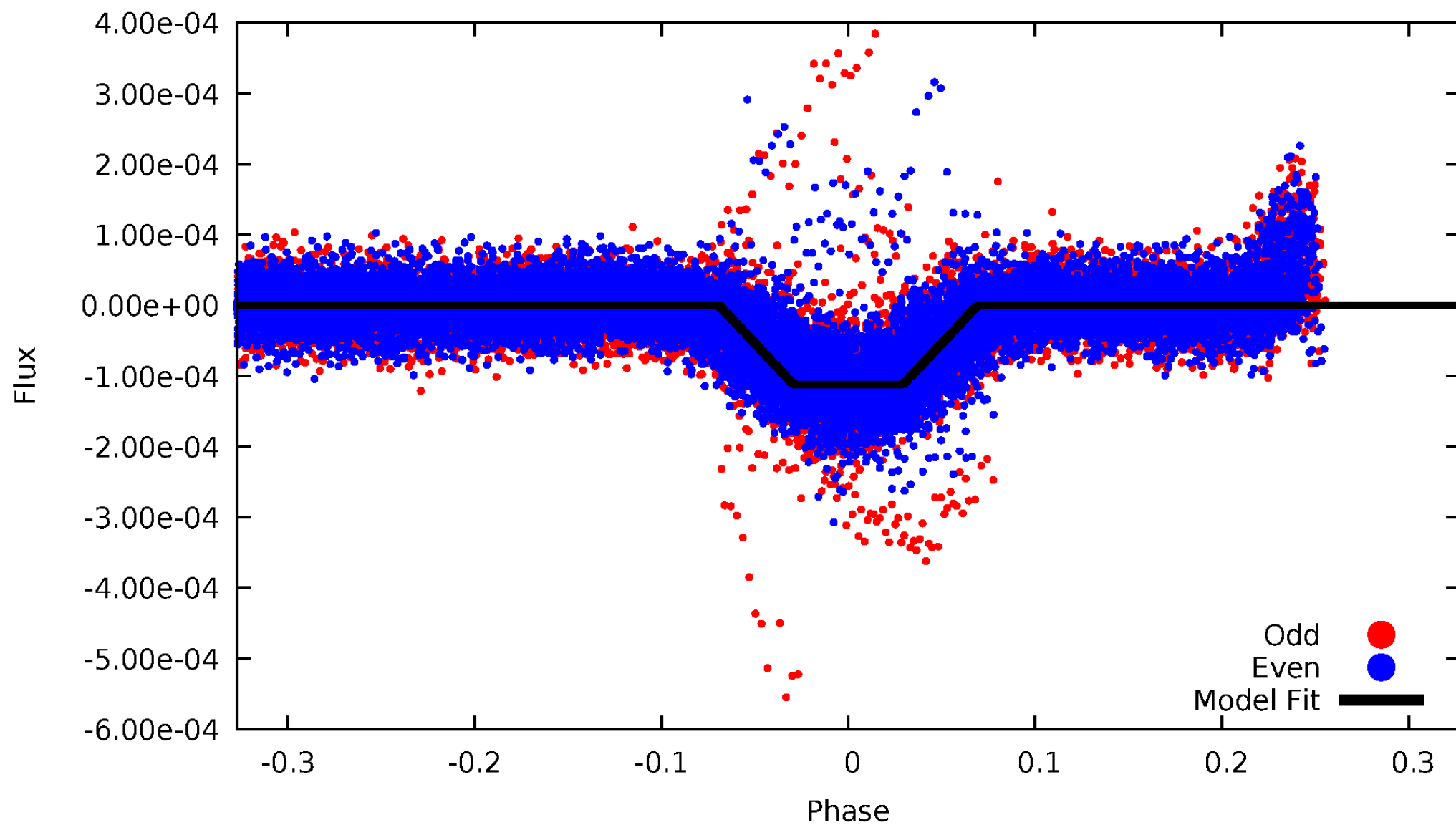
DV Odd/Even

TCE 006309129-03



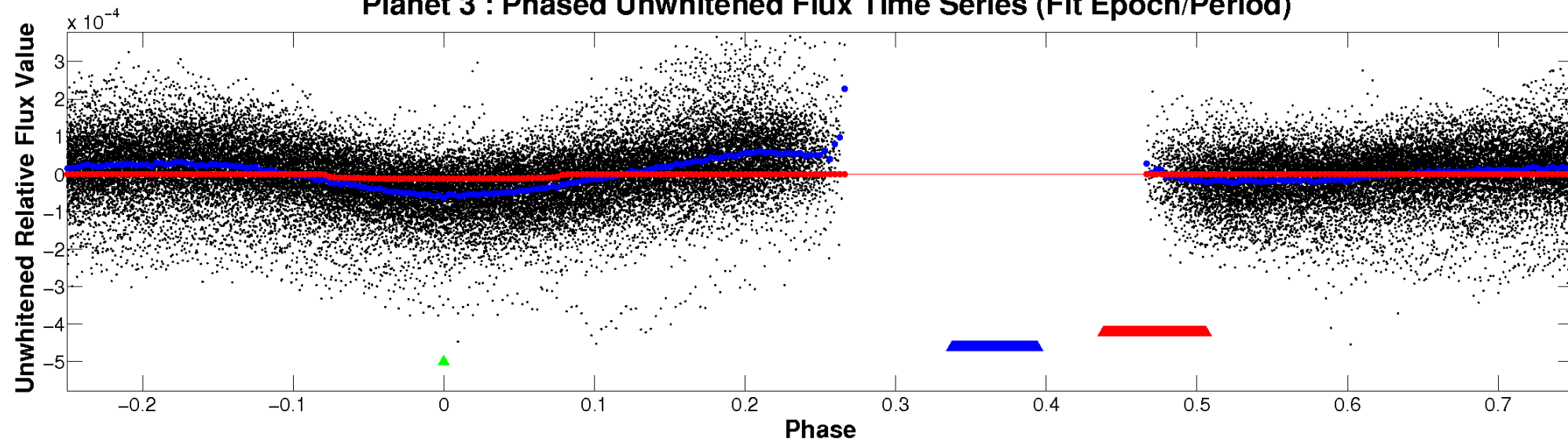
ALT Odd/Even

TCE 006309129-03

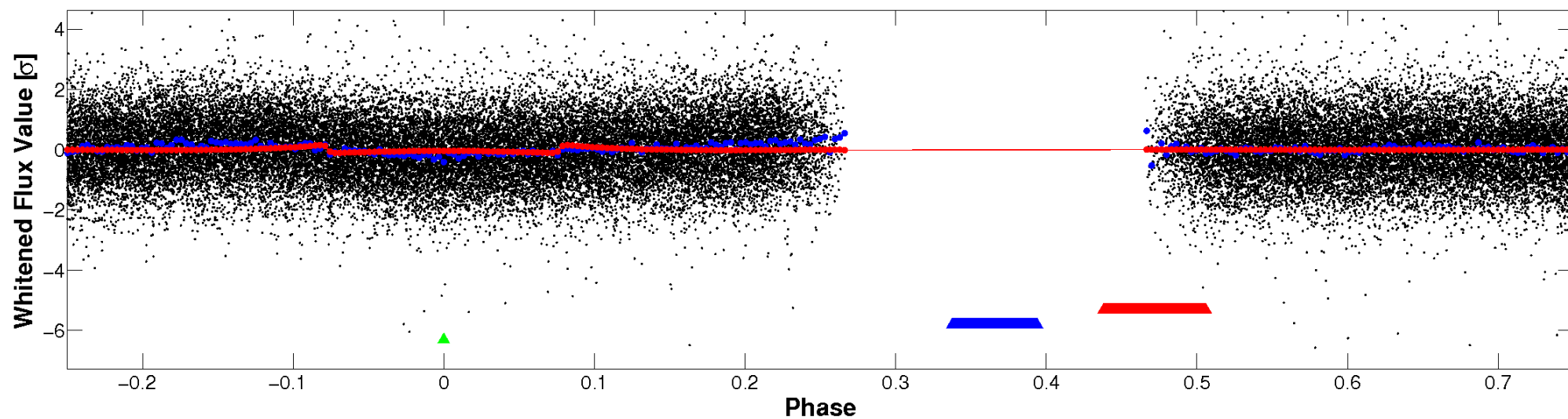


Non-Whitened Vs. Whitened Light Curve

Planet 3 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

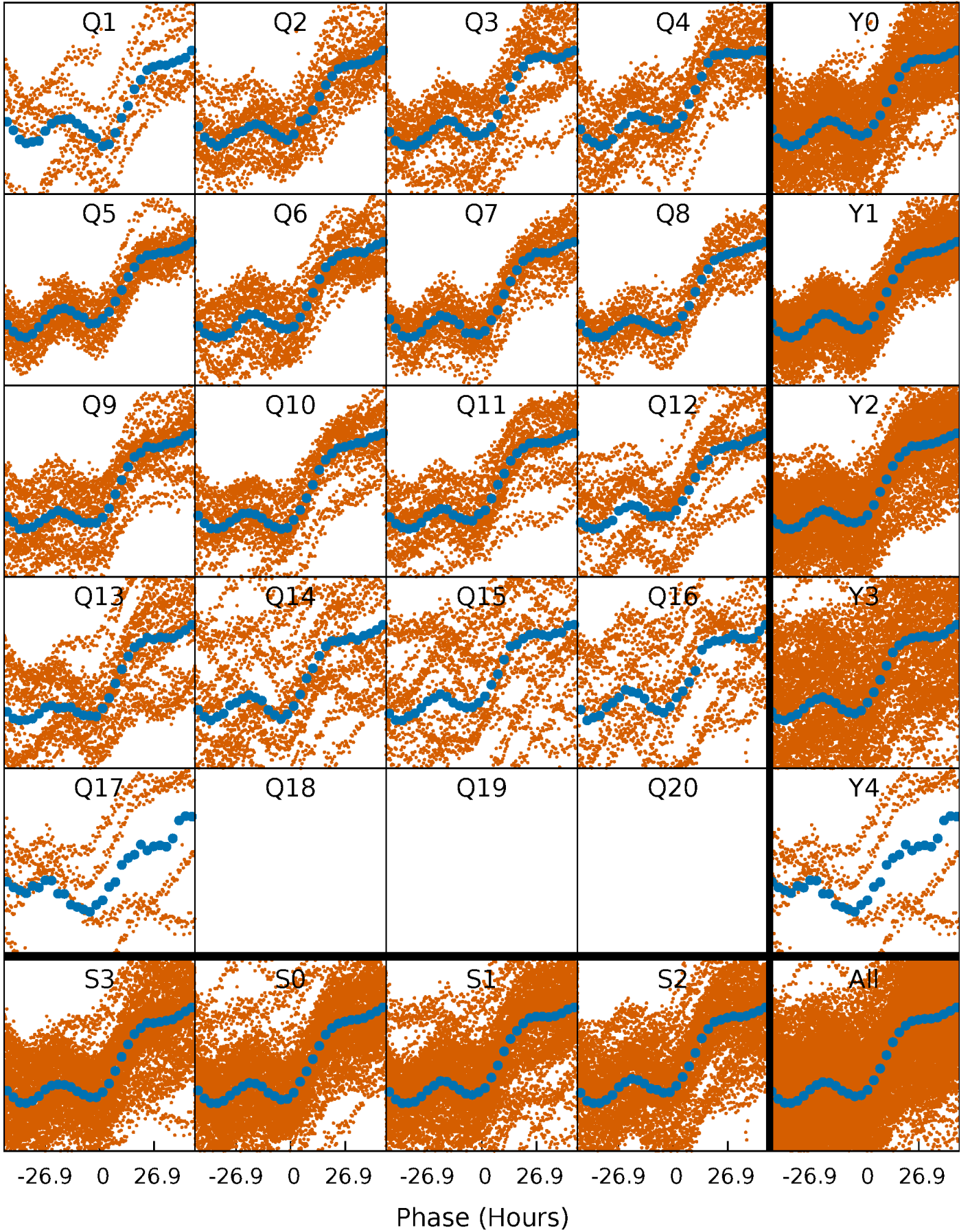


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



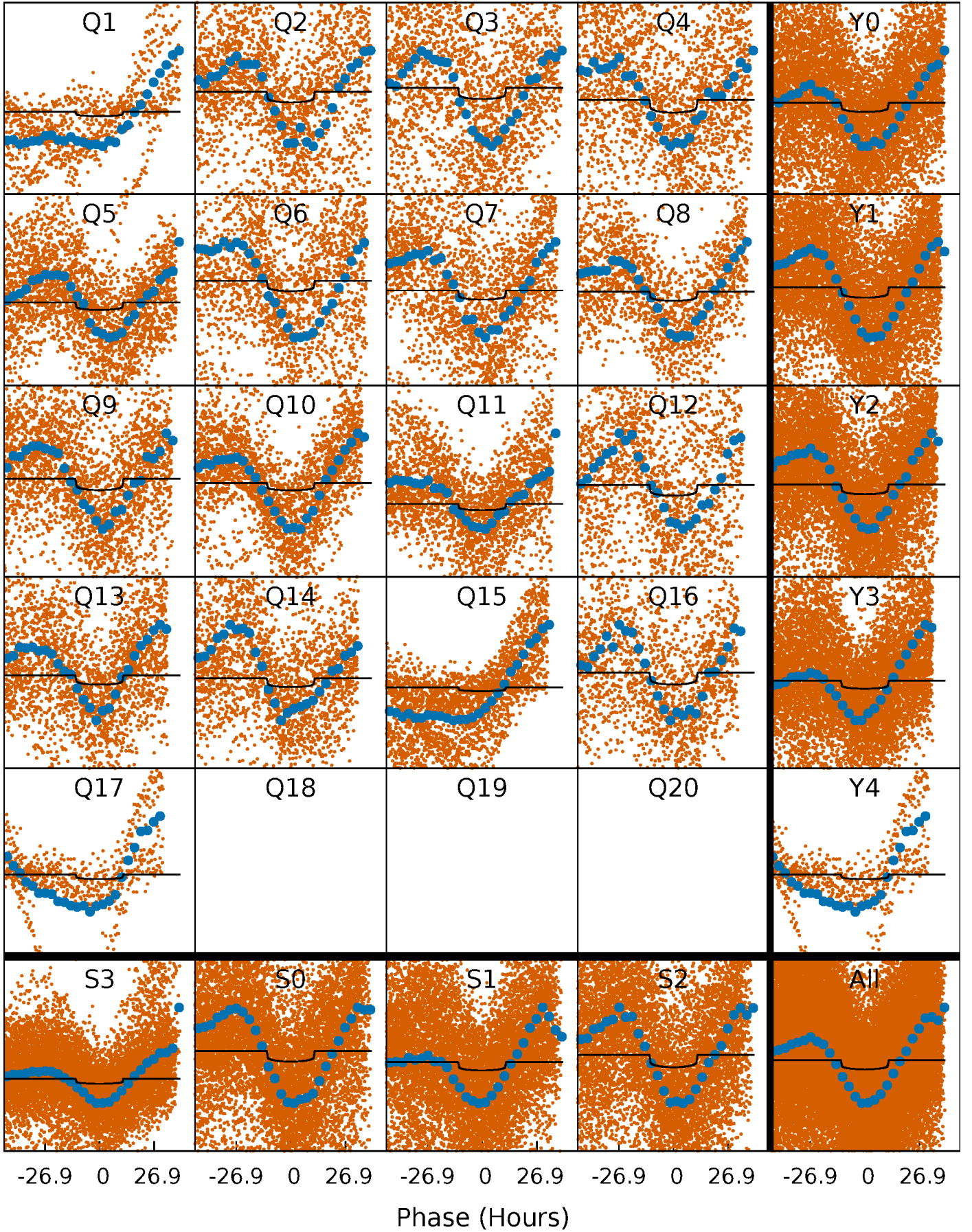
PDC Quarter-Phased Transit Curves

TCE 006309129-03 P= 6.217501 Days $T_0=133.863074$ (BKJD)



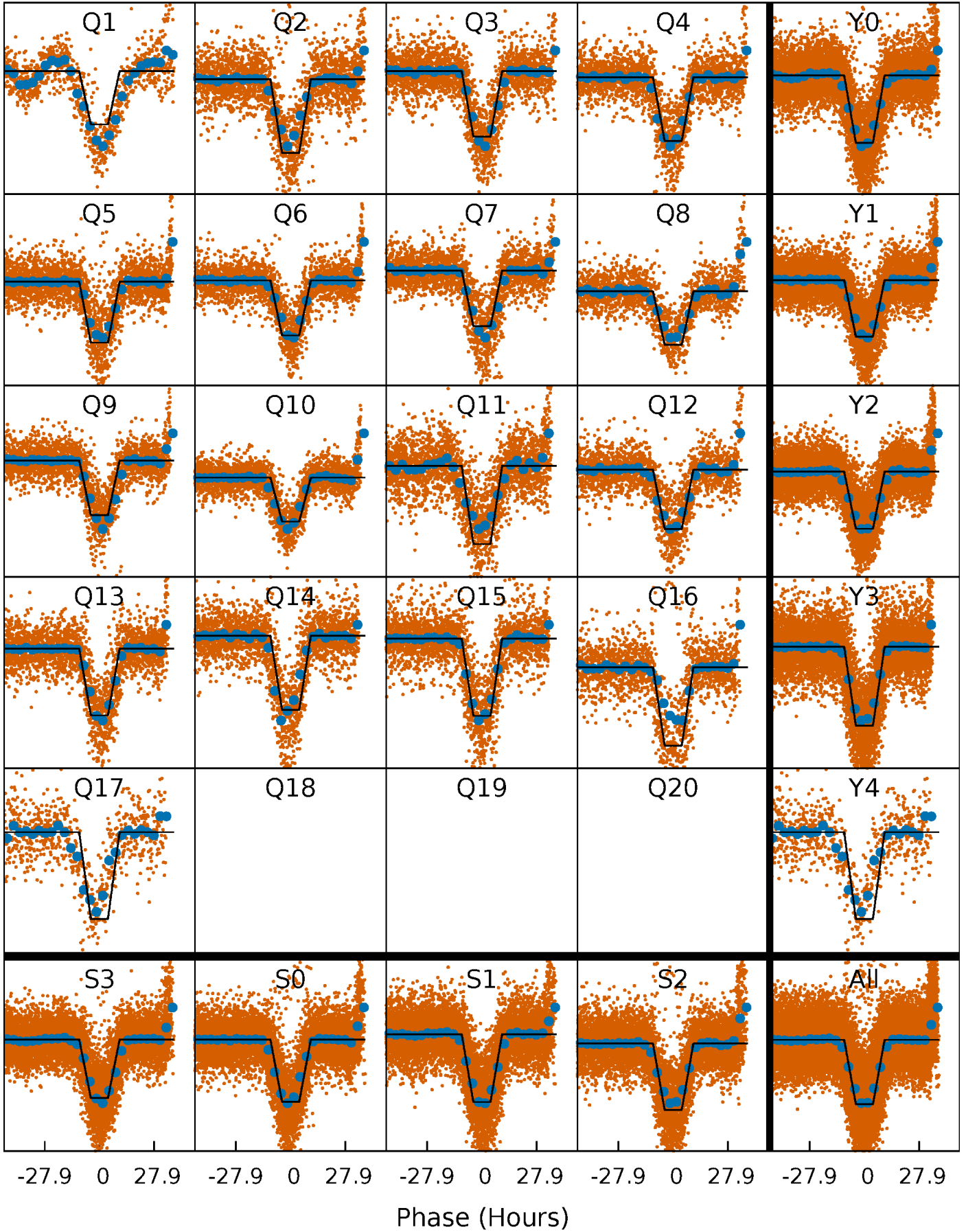
DV Quarter-Phased Transit Curves

TCE 006309129-03 P= 6.217501 Days $T_0=133.863074$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

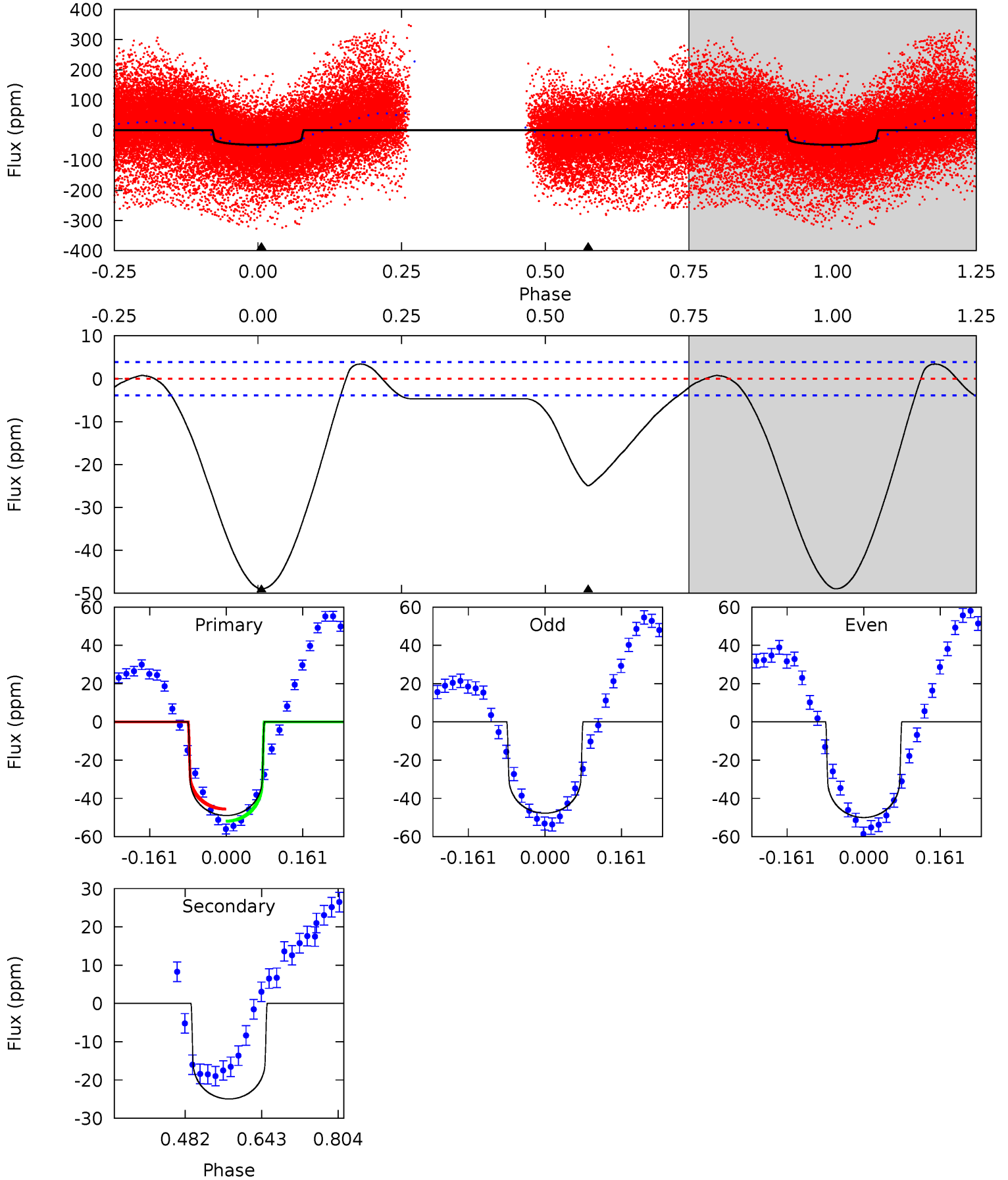
TCE 006309129-03 P= 6.216757 Days $T_0=133.925488$ (BKJD)



DV Model-Shift Uniqueness Test

006309129-03, P = 6.217501 Days, E = 127.645573 Days

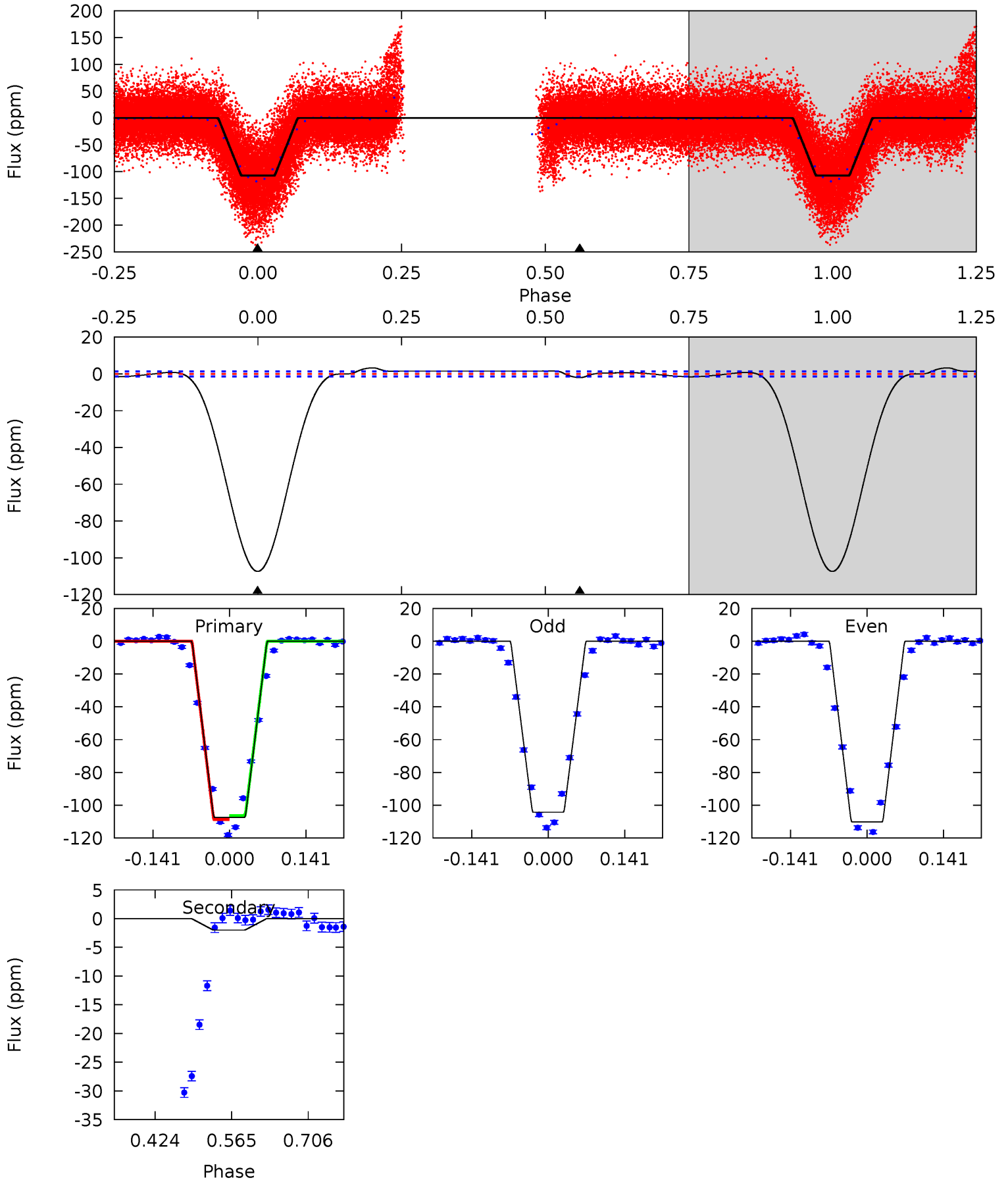
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
56.1	28.6	0	0	4.46	1.40	2.29	56.1	56.1	28.6	28.6	1.31	1.18	0.07	3.67



Alt Model-Shift Uniqueness Test

006309129-03, P = 6.216757 Days, E = 127.708731 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
343.1	6.38	0	0	4.49	1.47	4.66	343.1	343.1	6.38	6.38	9.49	0.99	0.03	0



Stellar Parameters For KIC 006309129

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7733^{+212}_{-319}	$3.594^{+0.567}_{-0.063}$	$-0.280^{+0.250}_{-0.300}$	$3.717^{+0.513}_{-2.052}$	$1.980^{+0.094}_{-0.530}$	$0.054^{+0.394}_{-0.011}$
	+3%/-4%	+16%/-2%	+89%/-107%	+14%/-55%	+5%/-27%	+725%/-21%
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 006309129-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-25 ± 1	$1.32^{+0.26}_{-0.39}$	2999^{+255}_{-433}	9311^{+695}_{-577}	52^{+47}_{-14}
Alt.	-2 ± 0	$3.85^{+0.65}_{-1.08}$	3016^{+257}_{-439}	2914^{+236}_{-386}	$0.498^{+0.424}_{-0.142}$

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

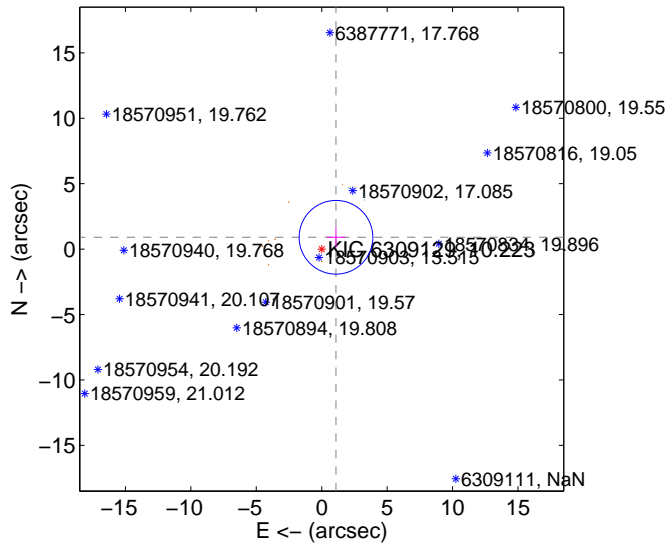
Supplemental centroid analysis for 006309129-03. **Kepler magnitude: 10.22.** Transit SNR 9.89

There are 9 quarters with good PRF difference image offsets

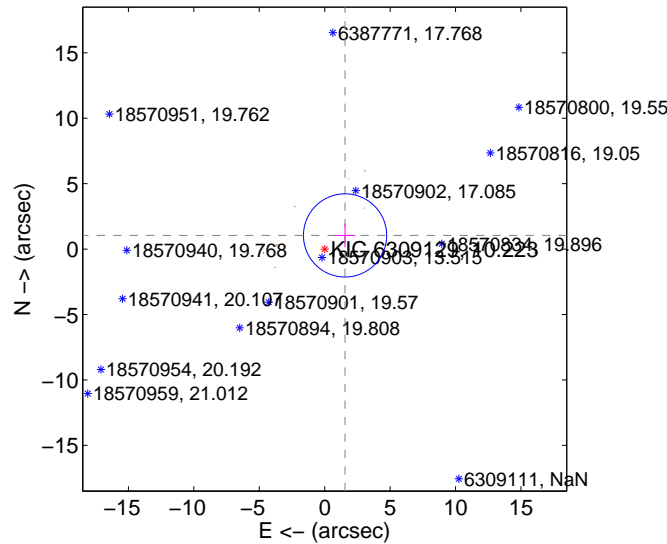
The direct PRF centroid is offset from the target star catalog position by about 0.42 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.416 ± 0.939	1.51	-1.091 ± 0.706	0.902 ± 0.753
PRF-fit source offset from KIC position	1.875 ± 1.060	1.77	-1.557 ± 0.774	1.045 ± 0.900
photometric centroid source offset	9.98 ± 1.81	5.52	-6.84 ± 1.79	7.28 ± 1.83

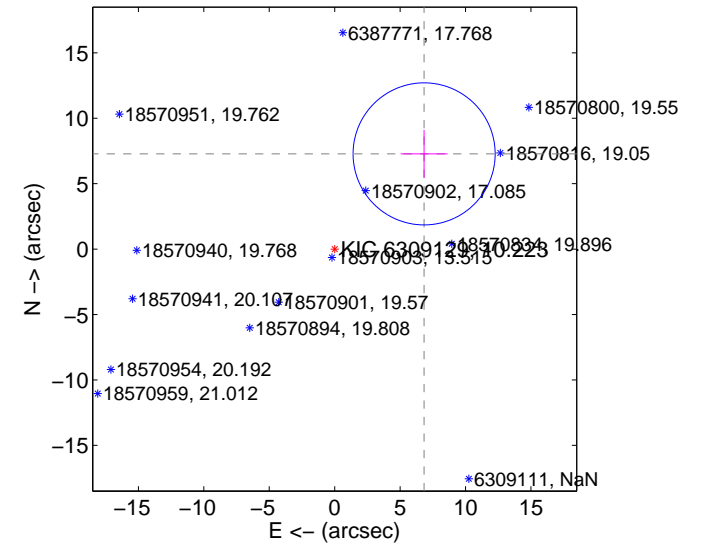
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

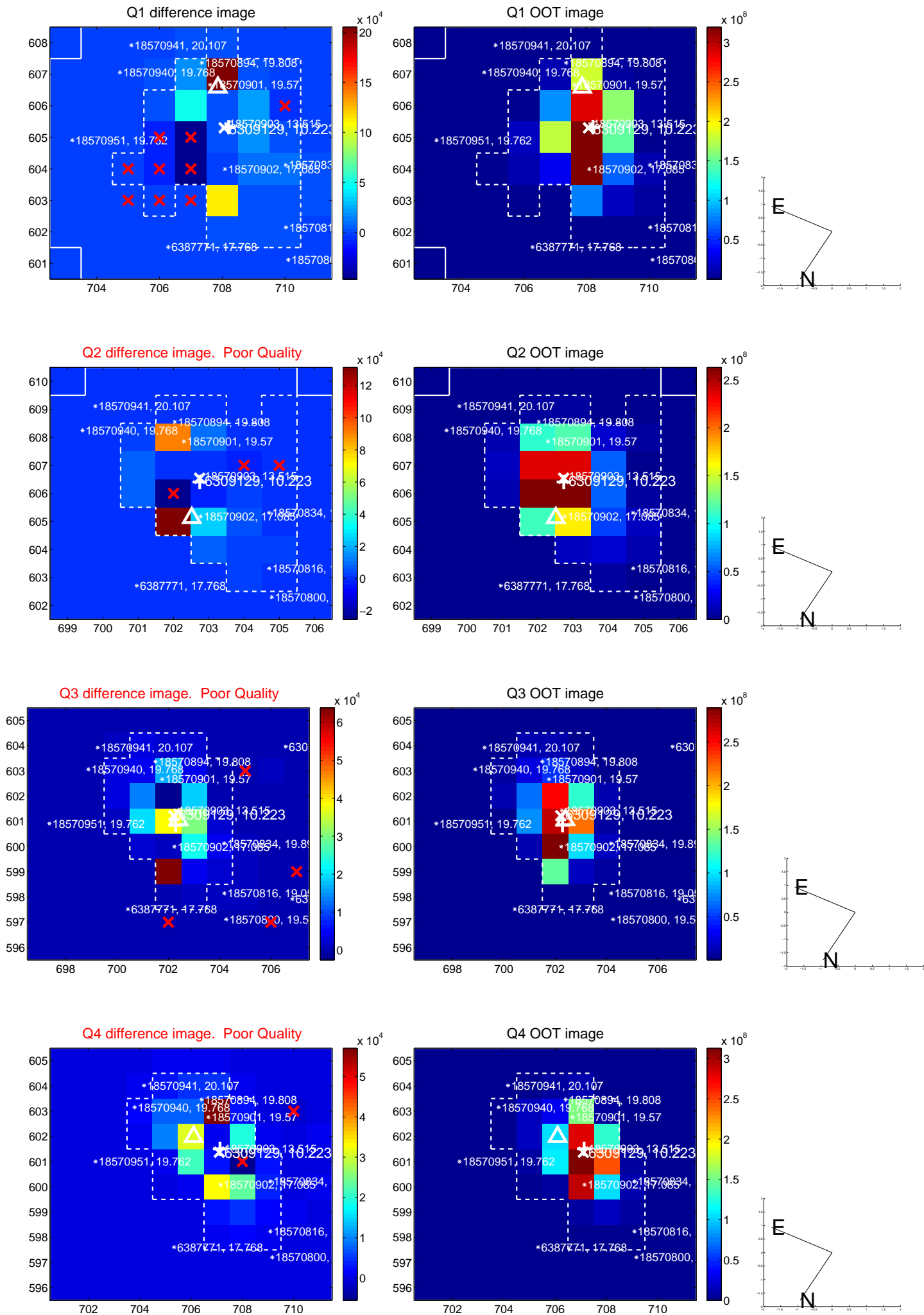


offset from photometric centroids

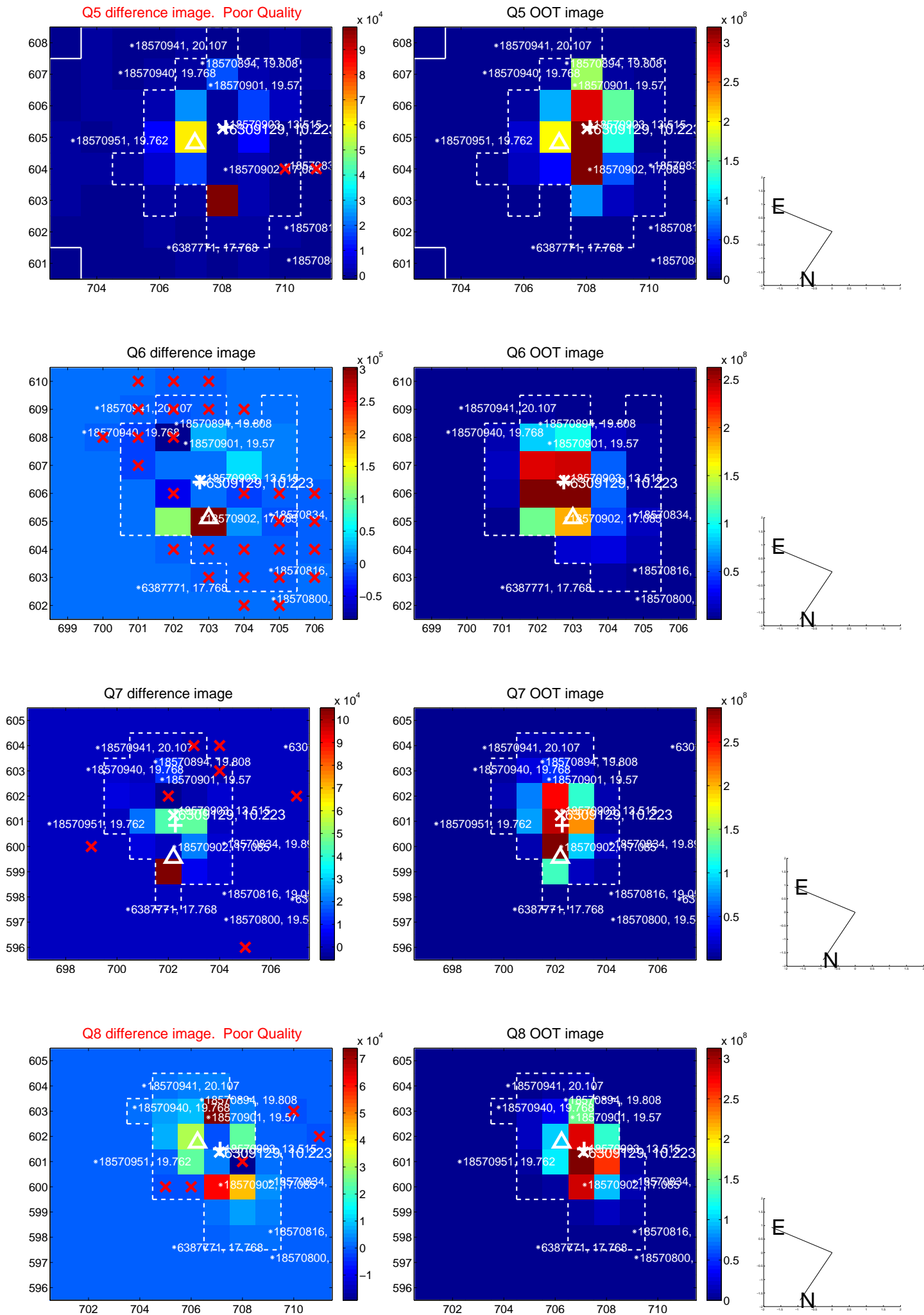


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

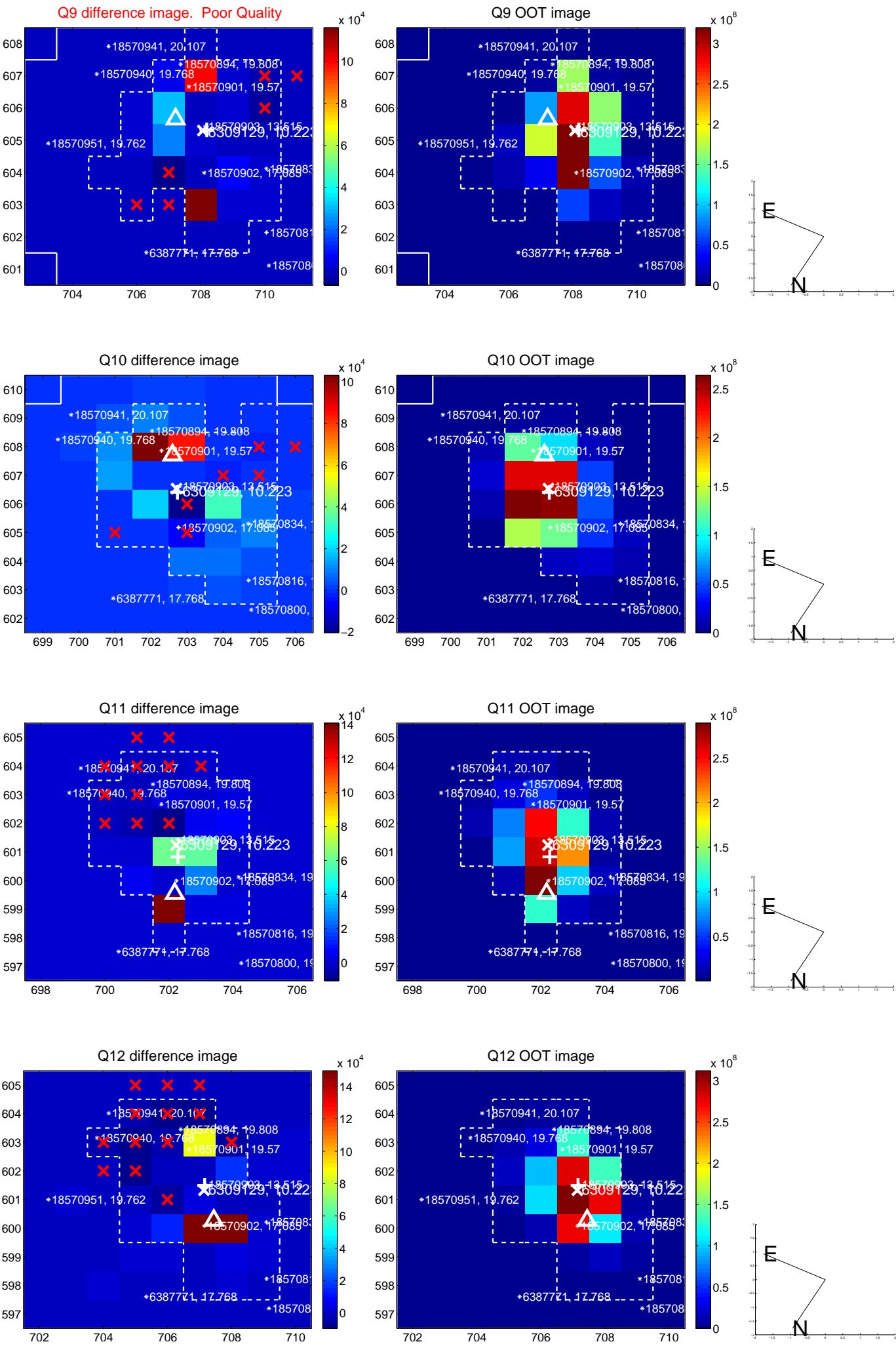
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



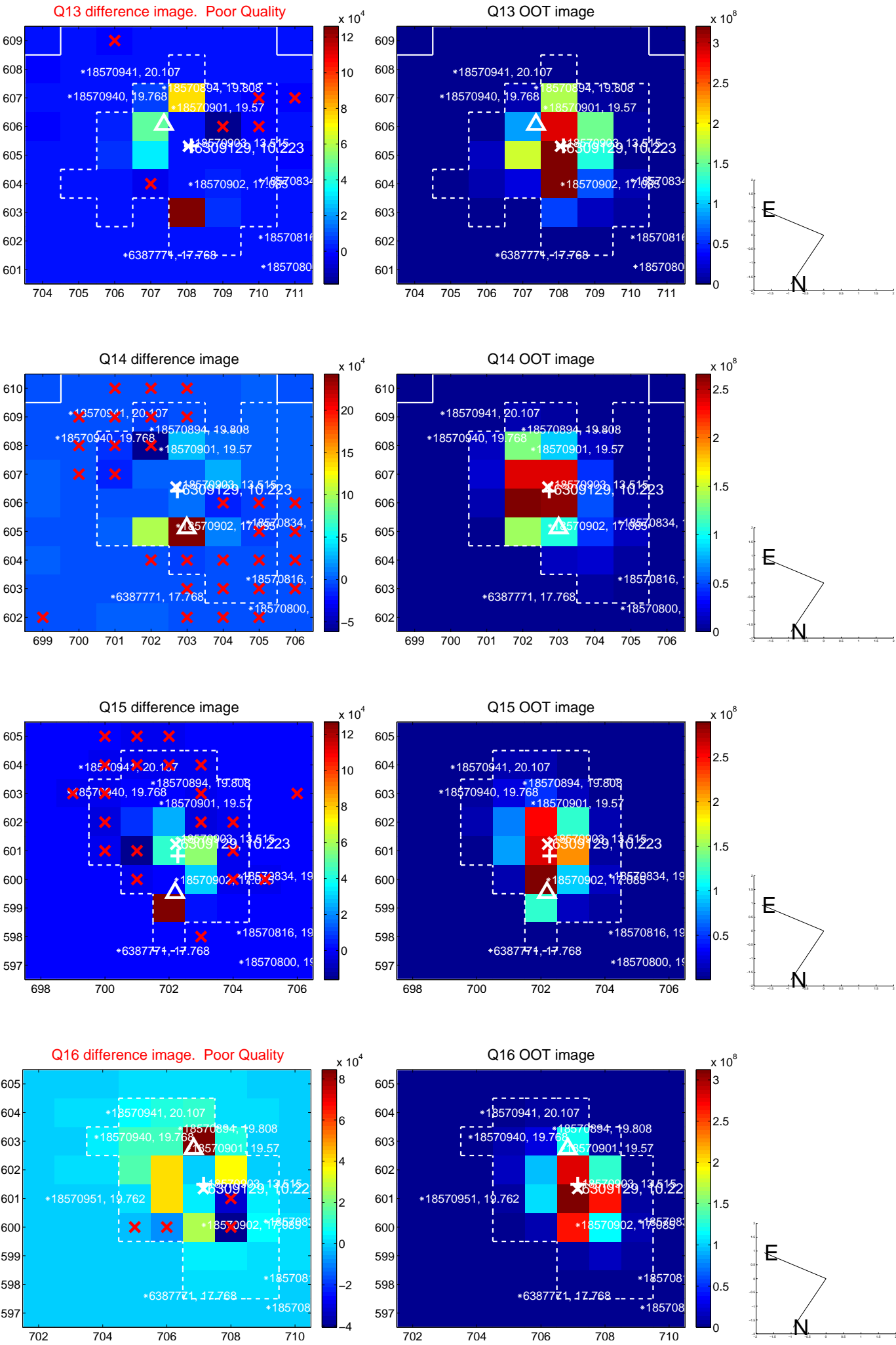
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



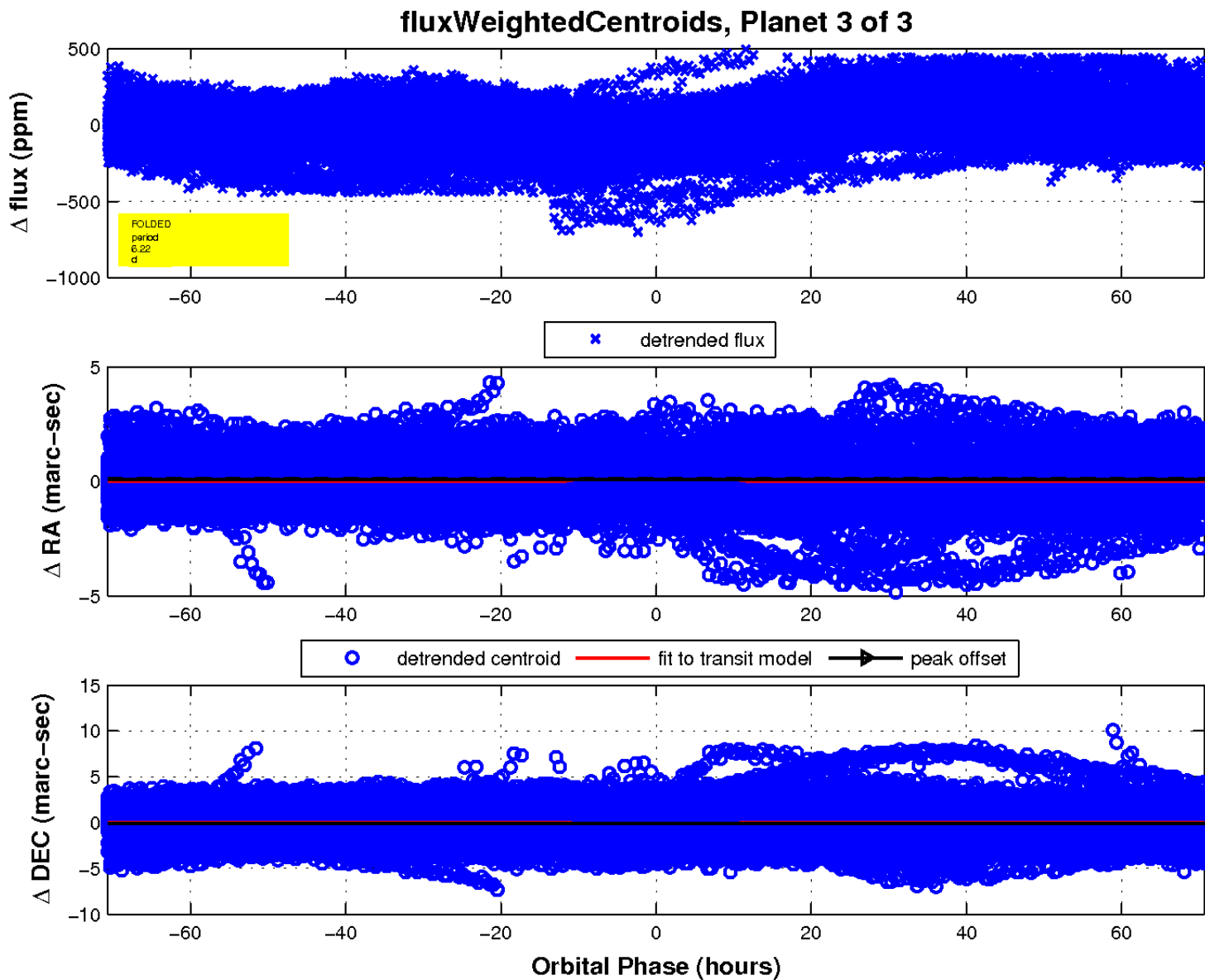
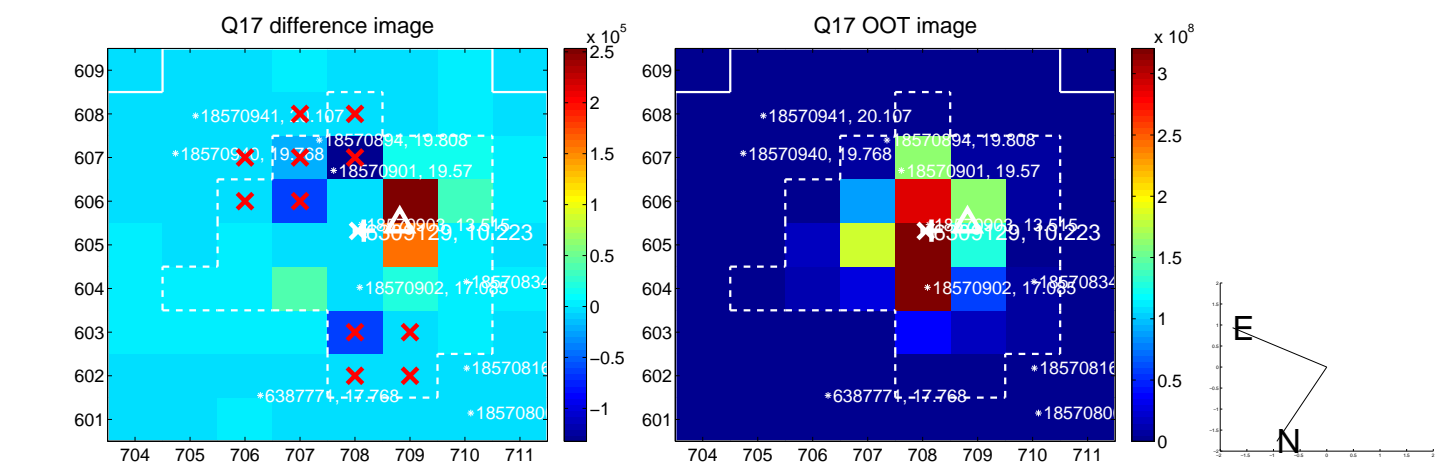
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

