

KIC 011199228

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}) |
|--------------|----------|------|---------------|--------------|-------------|------------------|------|-----|-----------------------------|-----------------|------------------------|------------------------|
| 011199228-01 | OBS | No | 0.544279 | 131.914749 | 3.5 | 5.209 | 11.7 | 5.1 | 2.28 | 9315 | 0.44 | 119476.10 |

Robovetter Results

| TCE | Run Type | Disp | Score | N | S | C | E | Comments |
|--------------|----------|------|-------|---|---|---|---|-----------------------|
| 011199228-01 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | LPP_DV—CENT_SATURATED |

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

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

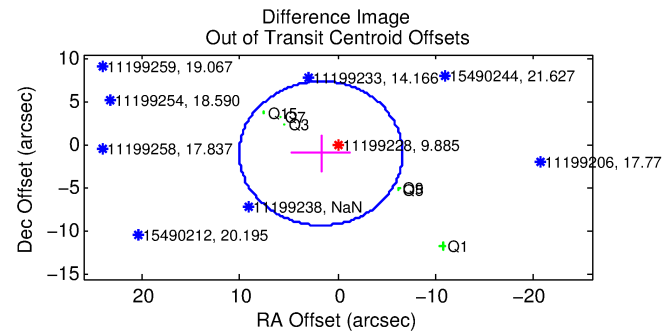
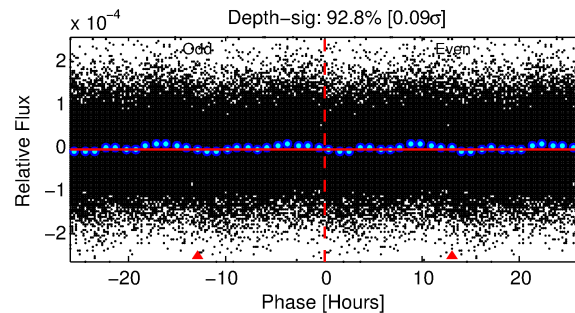
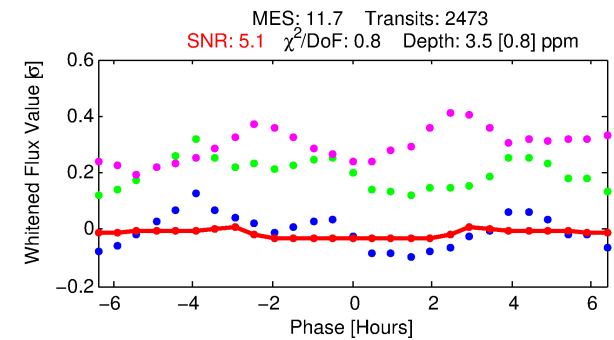
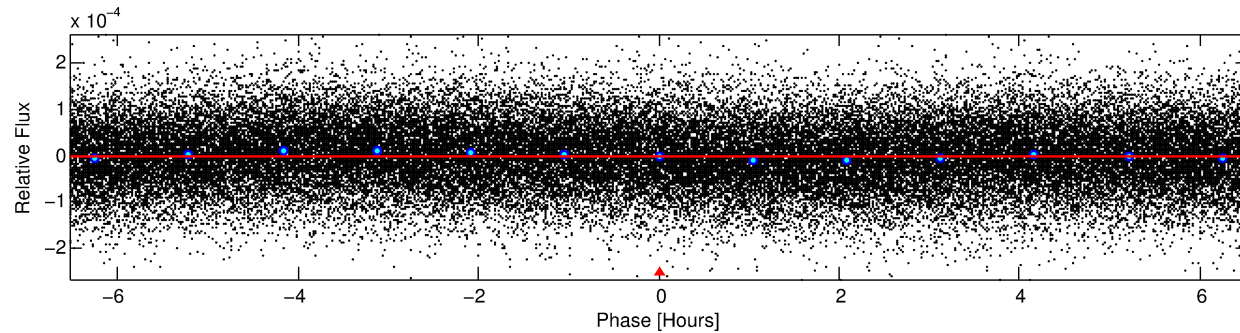
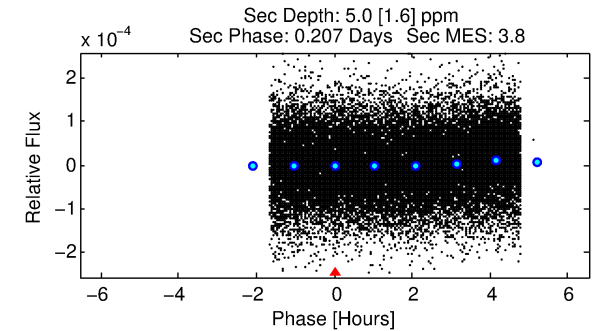
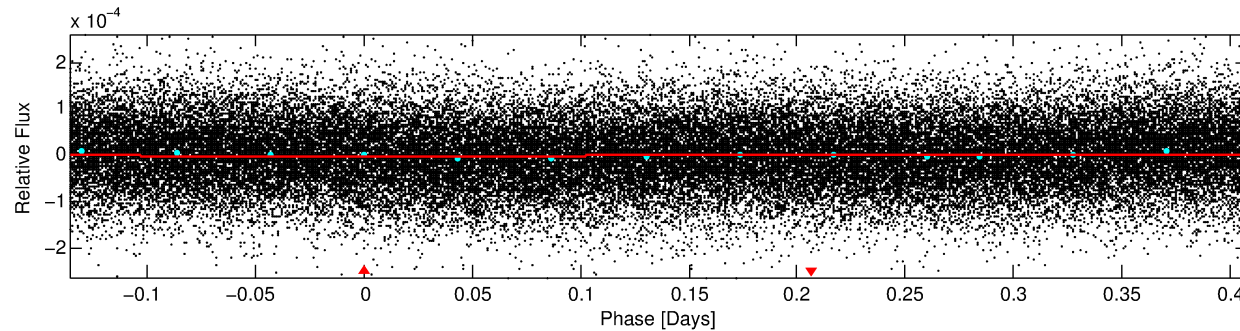
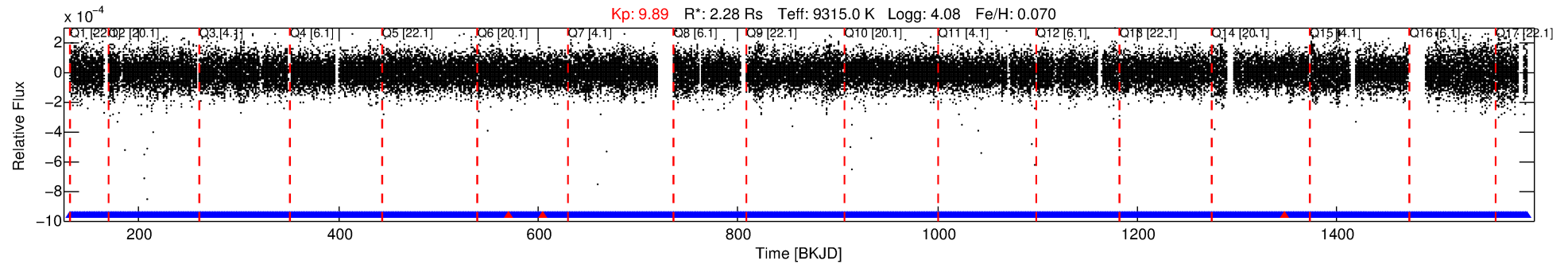
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011199228-01

No Significant Match Found

DV One-Page Summary

KIC: 11199228 Candidate: 1 of 1 Period: 0.544 d



DV Fit Results:

Period = 0.54428 [0.00002] d
Epoch = 131.9147 [0.0064] BKJD
Rp/R* = 0.0018 [0.0014]
a/R* = 1.04 [0.45]
b = 0.50 [8.35]
Seff = 119476.10 [54263.76]
Teq = 4741 [538] K
Rp = 0.44 [0.39] Re
a = 0.0171 [0.0054] AU
Ag = 4.12 [6.88] [0.45σ]
Teffp = 10442 [4246] K [1.33σ]

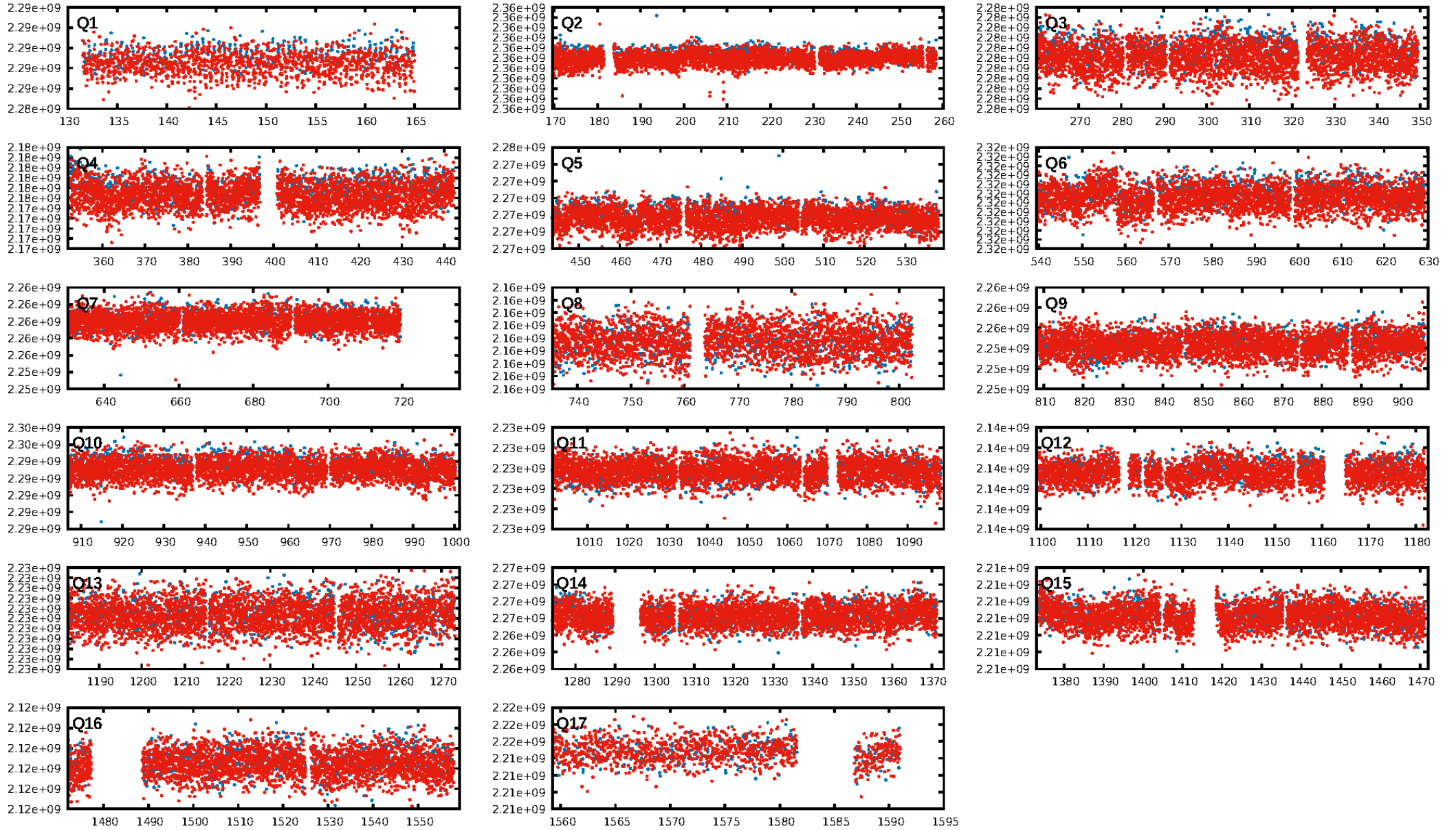
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [2360/2363]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 1.968 arcsec [0.71σ]
KicOffset-rm: 1.349 arcsec [0.53σ]
OotOffset-st: 0/3/0/3 [6]
KicOffset-st: 0/3/0/3 [6]
DiffImageQuality-fgm: 0.17 [1/6]
DiffImageOverlap-fno: 1.00 [17/17]

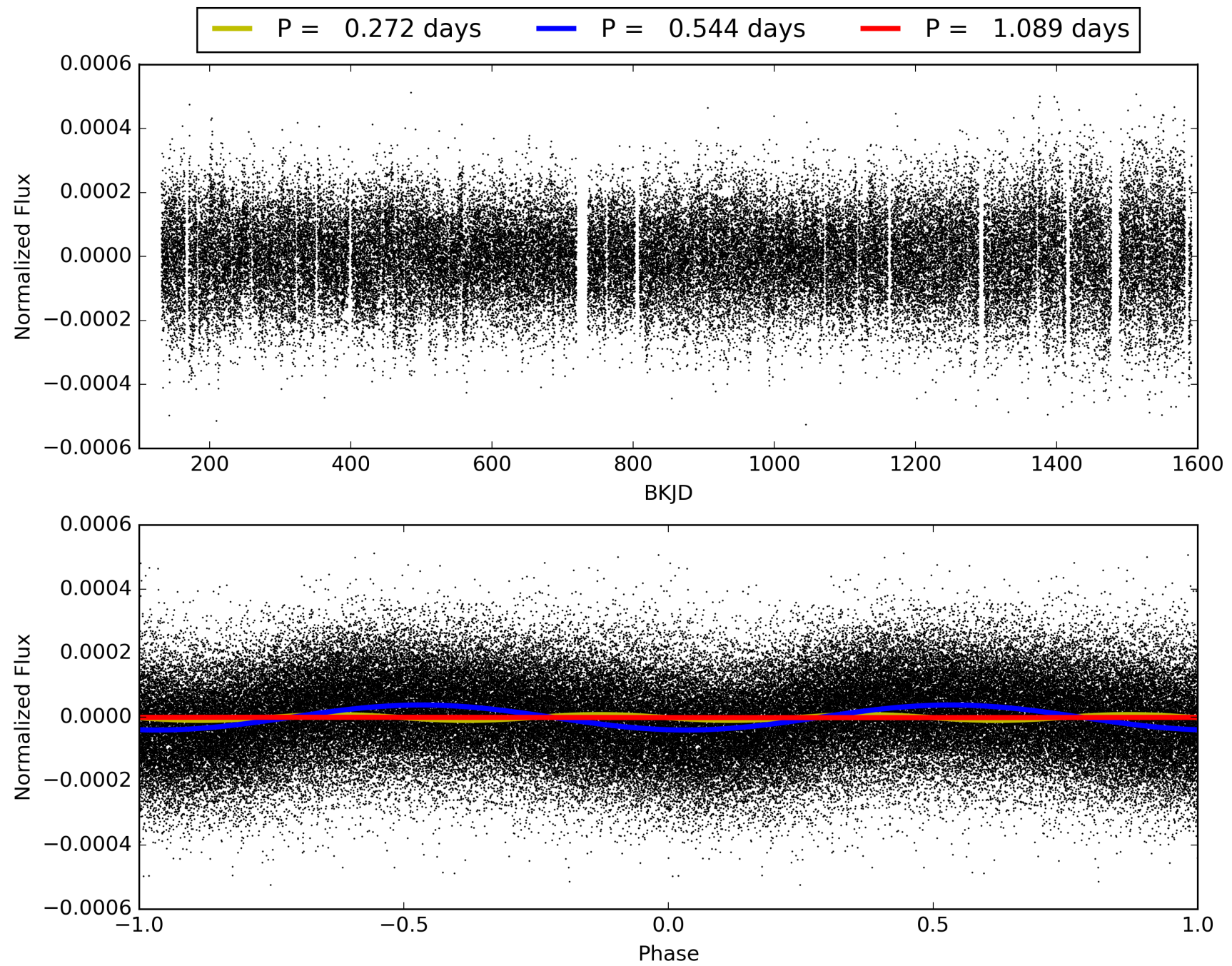
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 01:55:46 Z

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

TCE 011199228-01, PDC Light Curves

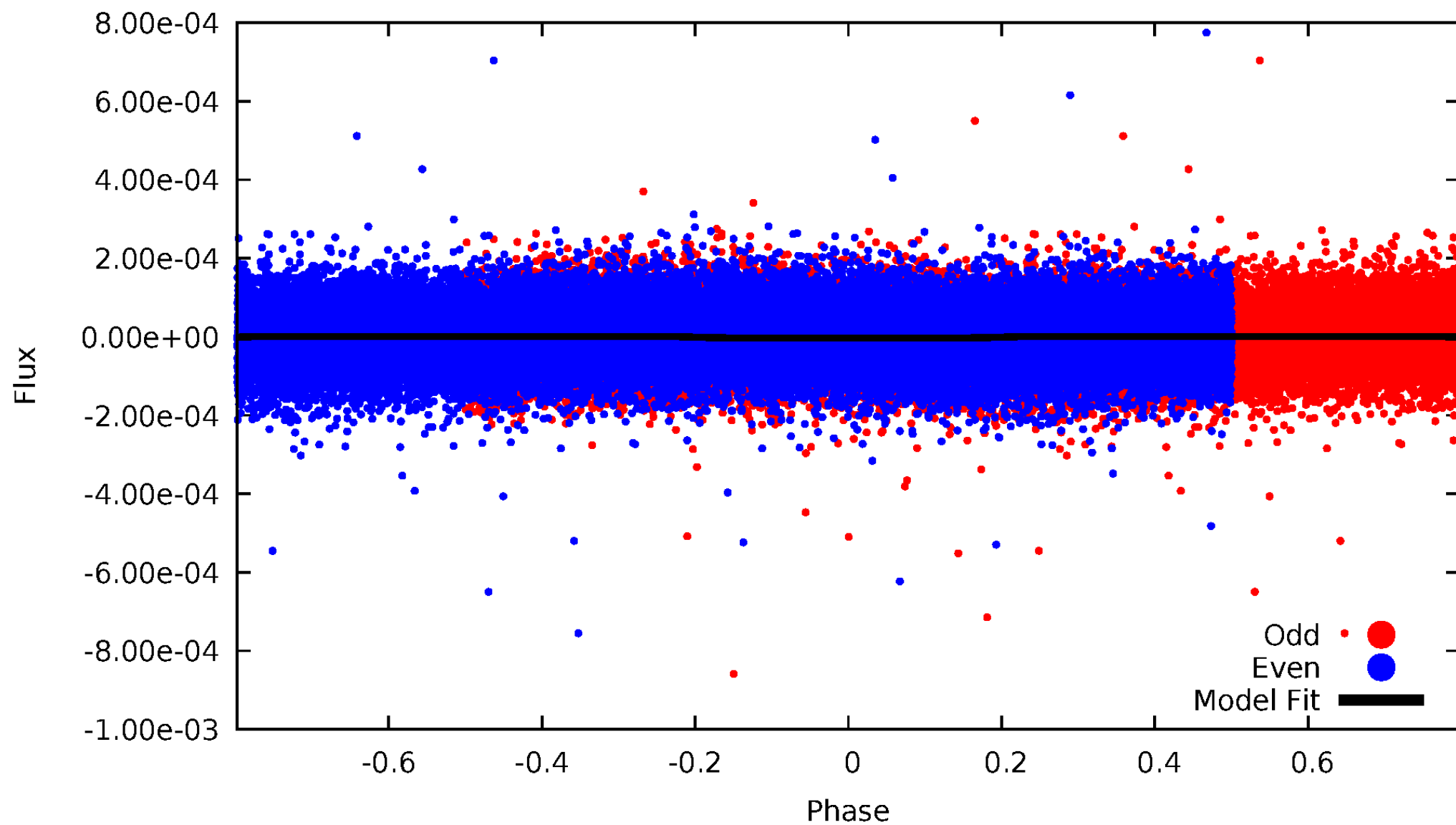


TCE 011199228-01



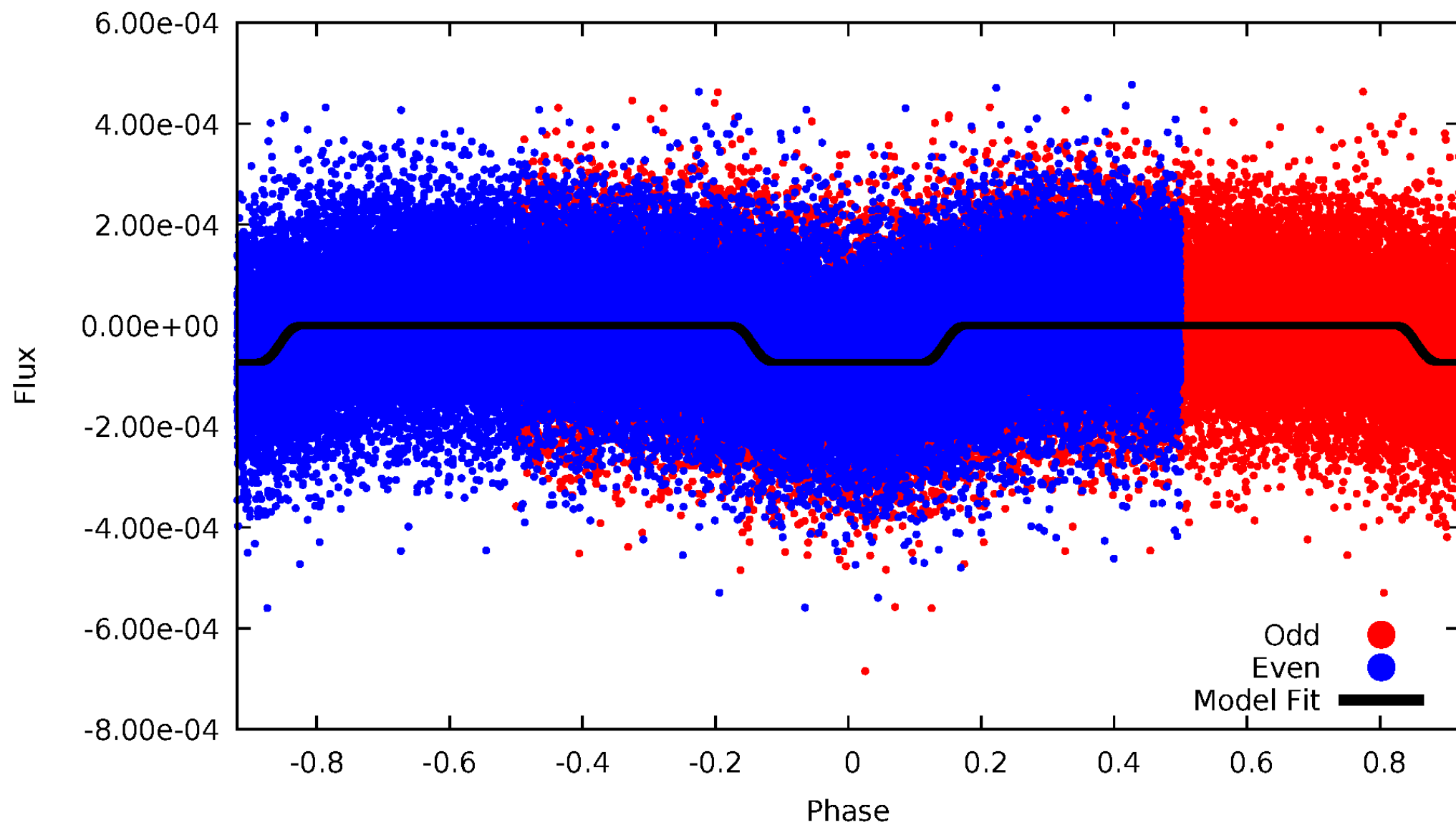
DV Odd/Even

TCE 011199228-01



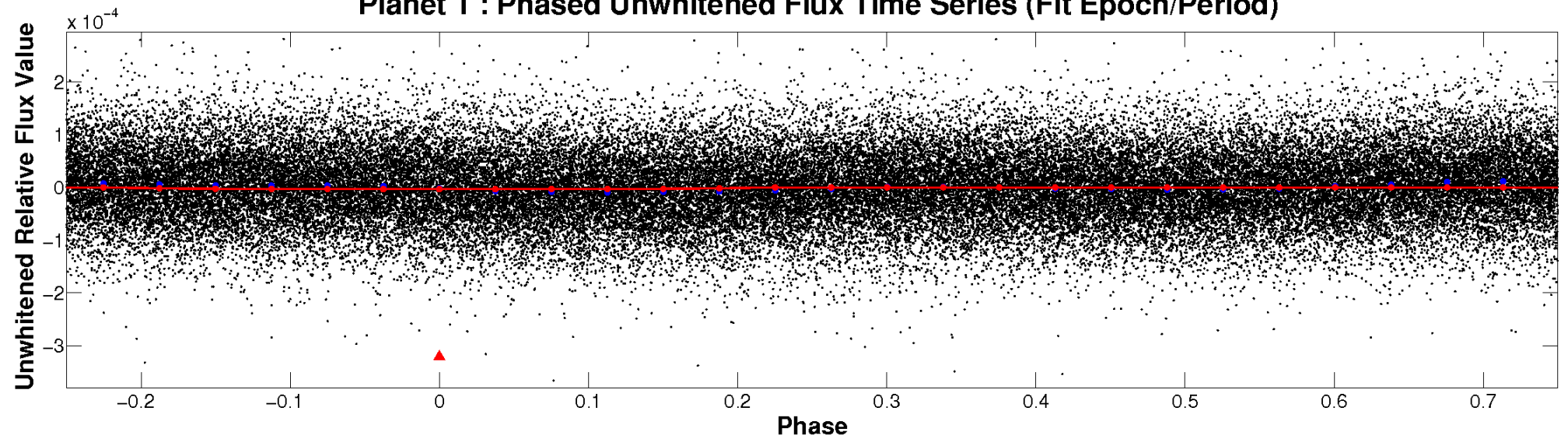
ALT Odd/Even

TCE 011199228-01

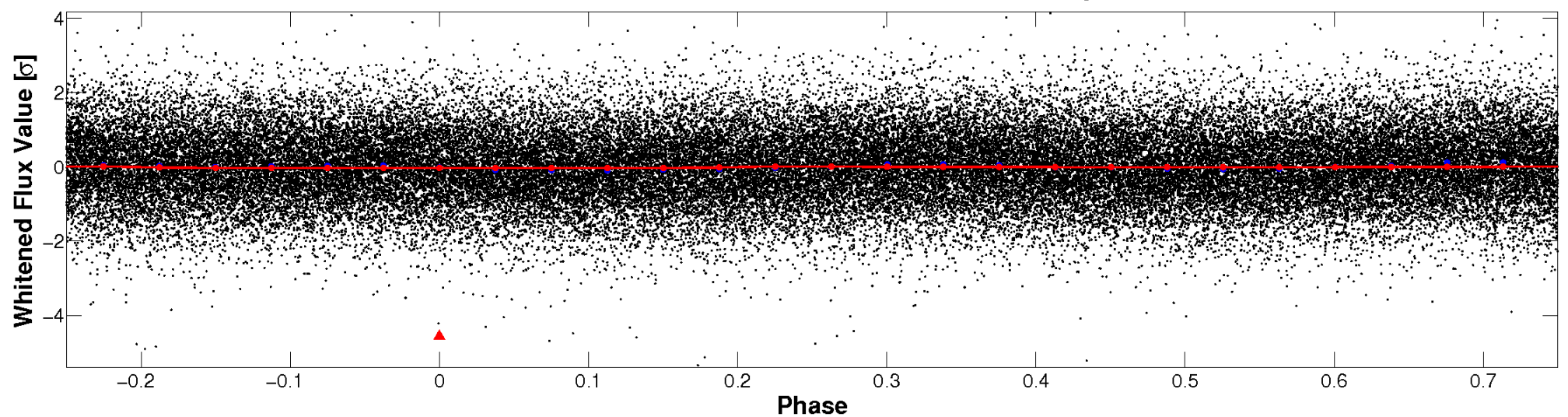


Non-Whitened Vs. Whitened Light Curve

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

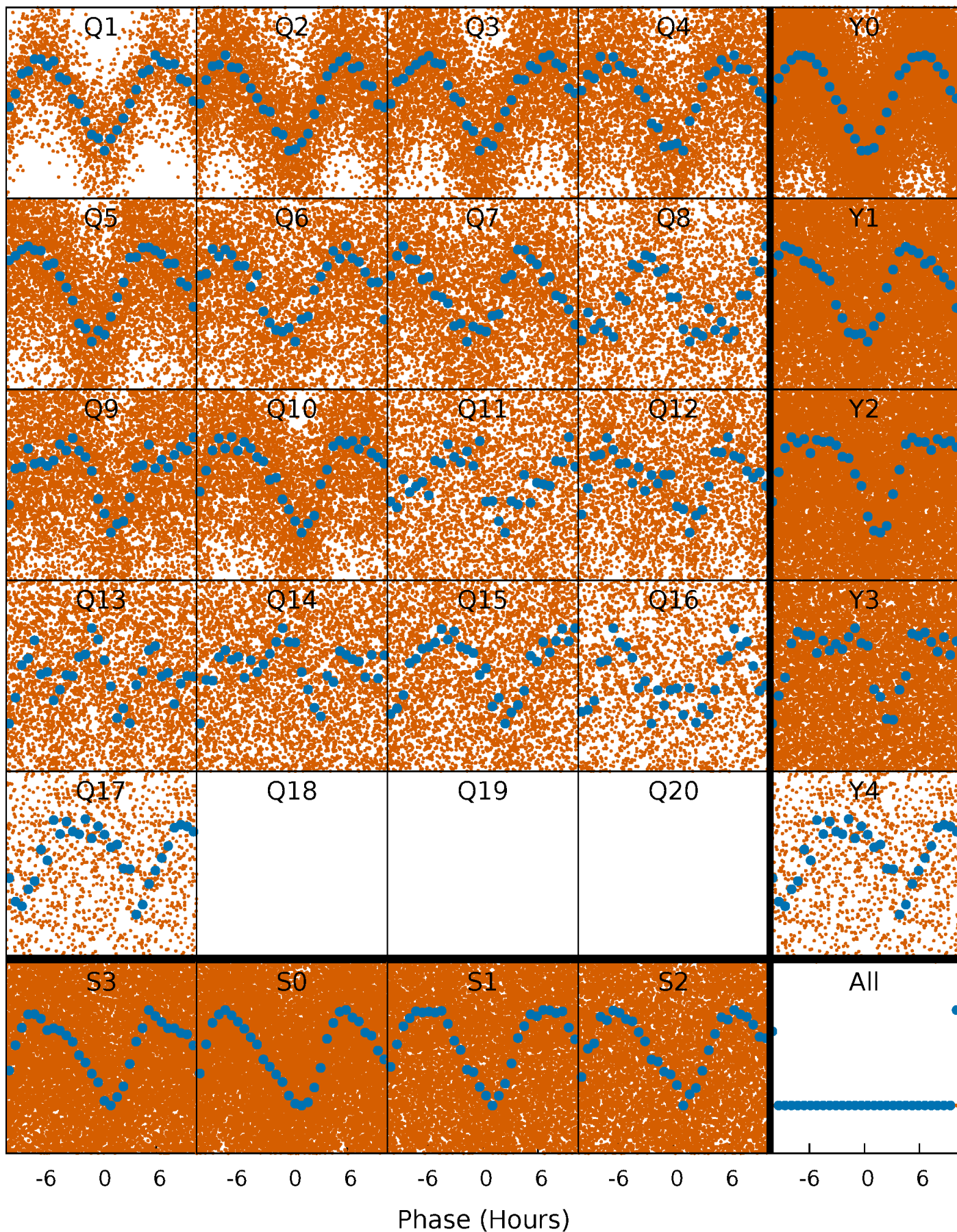


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



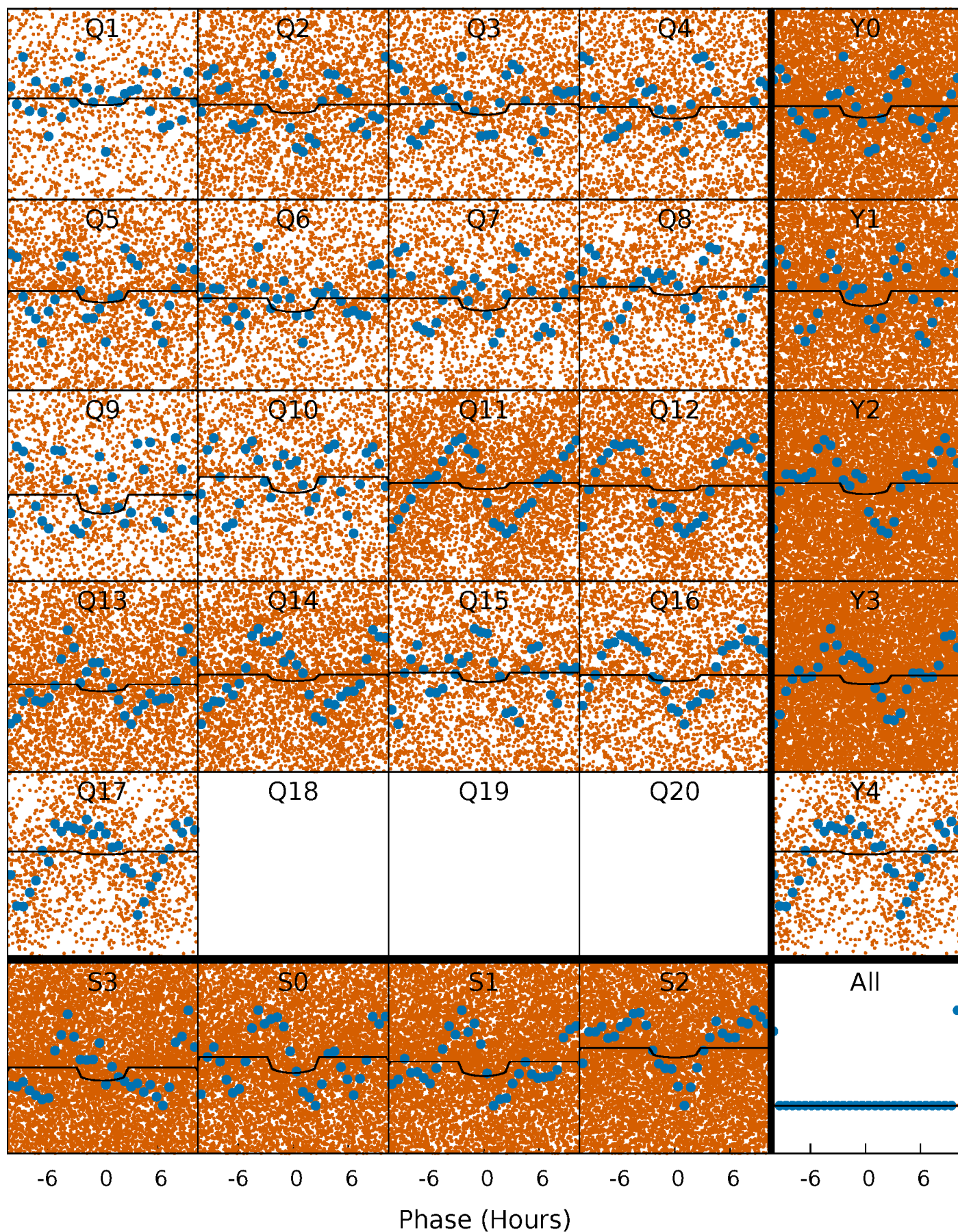
PDC Quarter-Phased Transit Curves

TCE 011199228-01 P= 0.544279 Days $T_0=131.914749$ (BKJD)



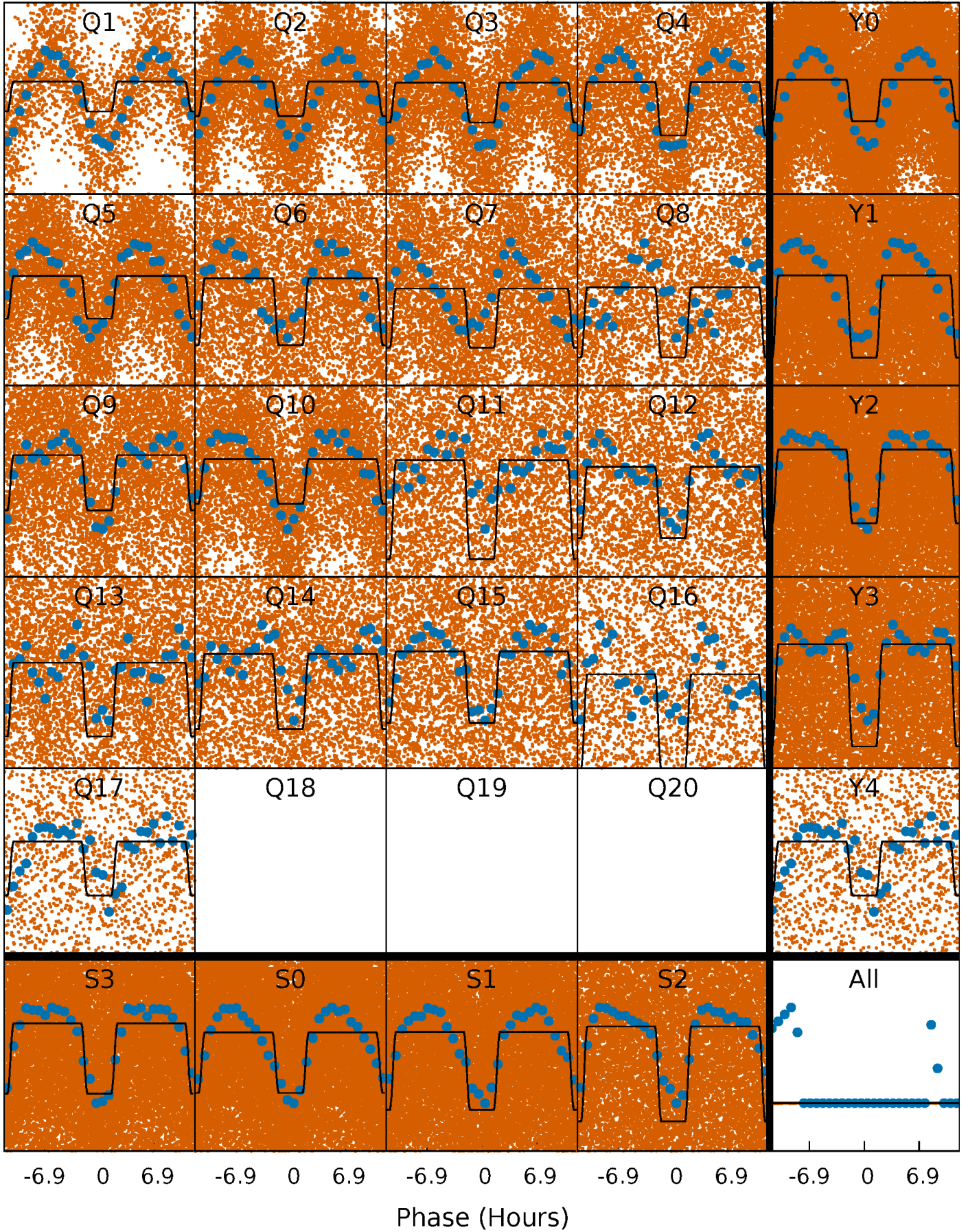
DV Quarter-Phased Transit Curves

TCE 011199228-01 P= 0.544279 Days $T_0=131.914749$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

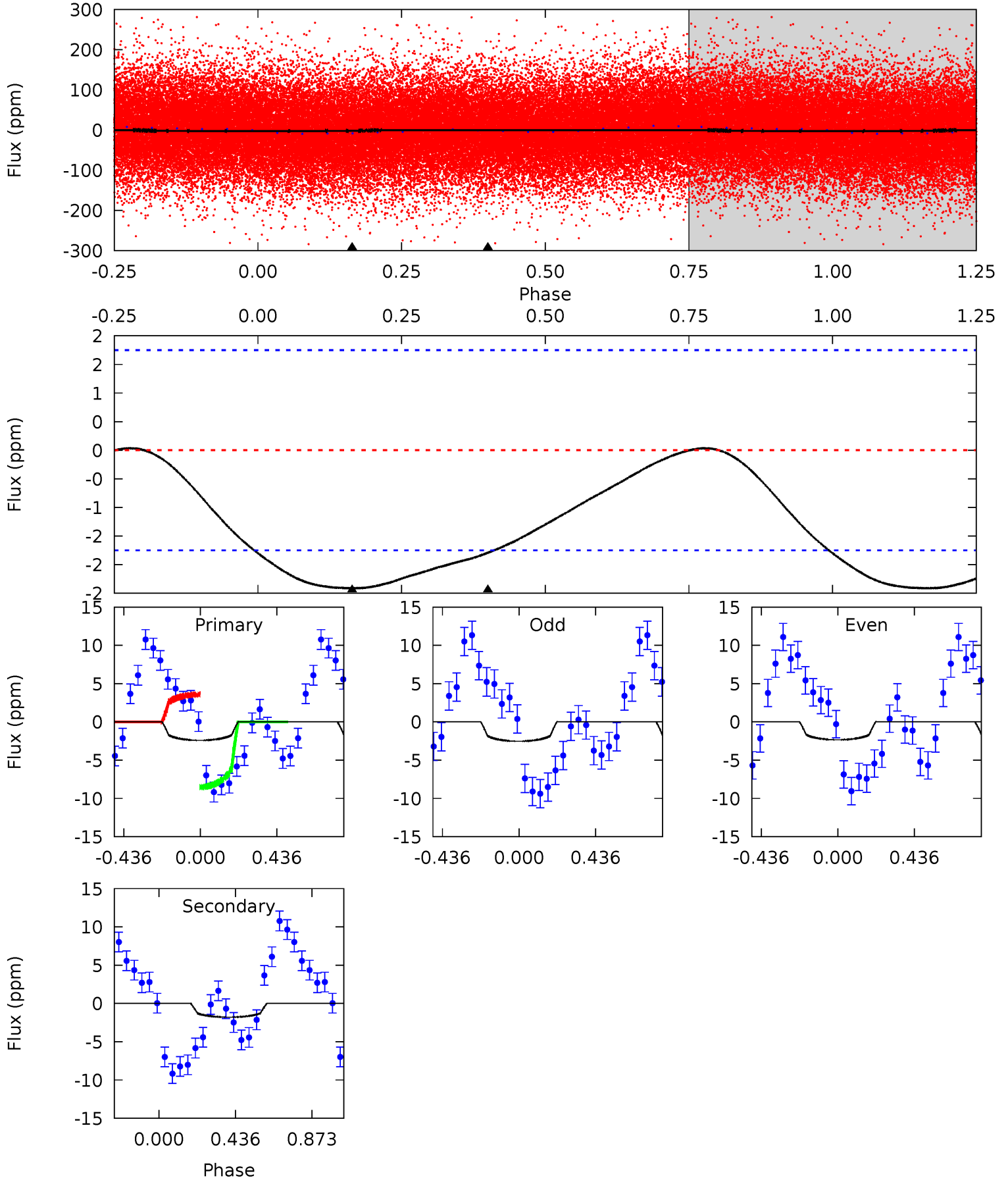
TCE 011199228-01 P= 0.544331 Days $T_0=131.893639$ (BKJD)



DV Model-Shift Uniqueness Test

011199228-01, P = 0.544279 Days, E = 131.370470 Days

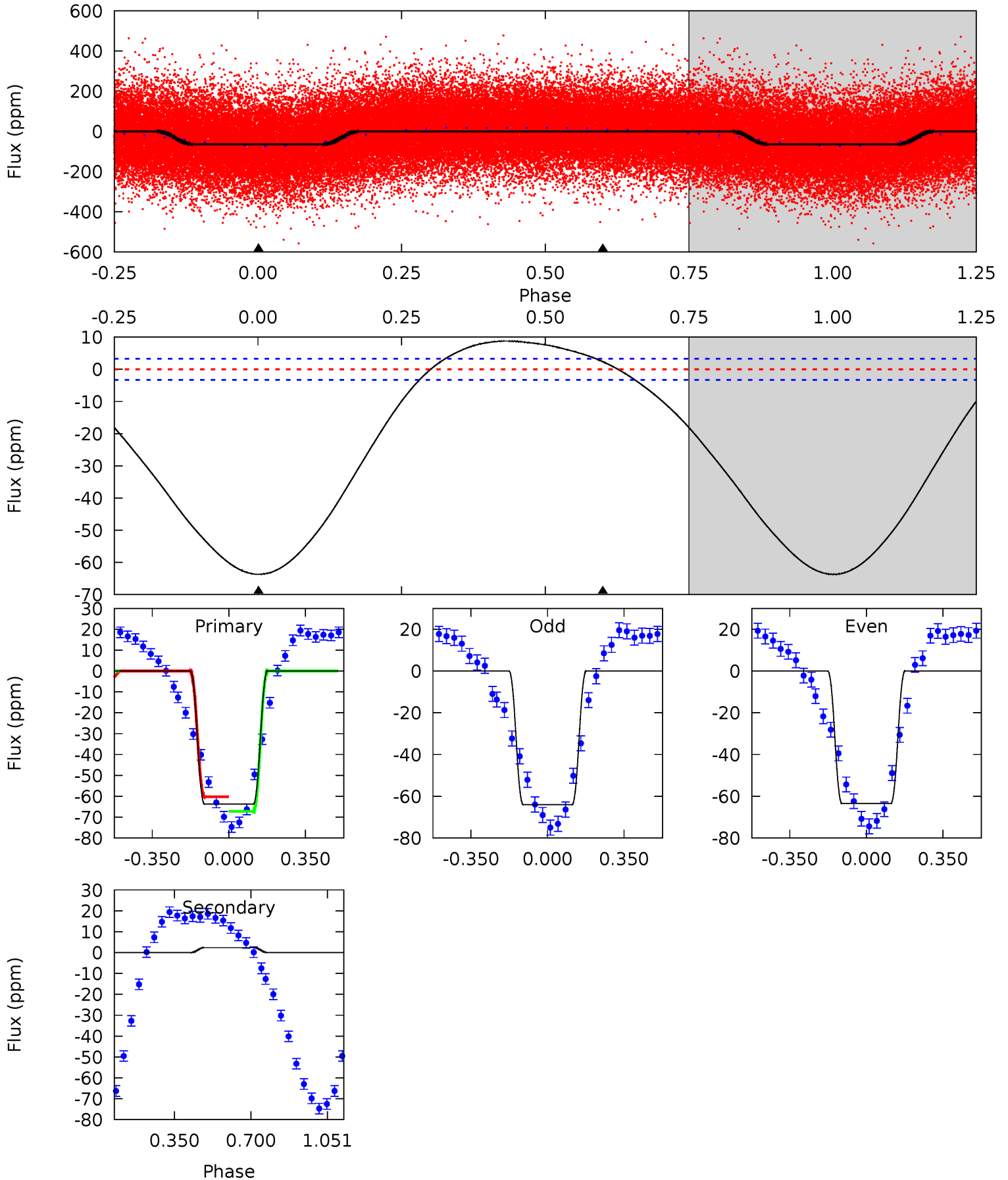
| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|-----|-----|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 5.86 | 4.35 | 0 | 0 | 4.25 | 0.78 | 0.11 | 5.86 | 5.86 | 4.35 | 4.35 | 0.24 | 0.70 | 0.01 | 6.03 |



Alt Model-Shift Uniqueness Test

011199228-01, P = 0.544331 Days, E = 131.349308 Days

| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|-------|-----|-----|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 83.6 | -3.11 | 0 | 0 | 4.29 | 0.93 | 5.95 | 83.6 | 83.6 | -3.11 | -3.11 | 0.33 | 1.02 | 0.12 | 4.56 |



Stellar Parameters For KIC 011199228

| | $T_{\text{eff}}(K)$ | $\log(g)$ | [Fe/H] | $R (R_{\odot})$ | $M(M_{\odot})$ | $p_{\star} (\text{g}\cdot\text{cm}^{-3})$ |
|--------|----------------------|---------------------------|---------------------------|---------------------------|---------------------------|---|
| | 9315^{+260}_{-409} | $4.077^{+0.140}_{-0.210}$ | $0.070^{+0.150}_{-0.600}$ | $2.281^{+0.915}_{-0.563}$ | $2.266^{+0.408}_{-0.561}$ | $0.269^{+0.204}_{-0.155}$ |
| | +3%/-4% | +3%/-5% | +214%/-857% | +40%/-25% | +18%/-25% | +76%/-58% |
| Source | PHO54 | PHO54 | PHO54 | DSEP | | |

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

Secondary Eclipse Parameters for KIC 011199228-01 / KOI

| Detrend | Depth (ppm) | $R_p (R_{\oplus})$ | $T_{\text{max}} (K)$ | $T_{\text{obs}} (K)$ | A_{obs} |
|---------|-------------|------------------------|----------------------|------------------------|----------------------------|
| DV | -2 ± 0 | $0.50^{+0.34}_{-0.30}$ | 6689^{+604}_{-513} | 6472^{+6603}_{-2389} | $1.067^{+5.685}_{-0.681}$ |
| Alt. | 2 ± 1 | $2.15^{+0.57}_{-0.46}$ | 6664^{+604}_{-485} | -5499^{+311}_{-393} | $-0.076^{+0.032}_{-0.059}$ |

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

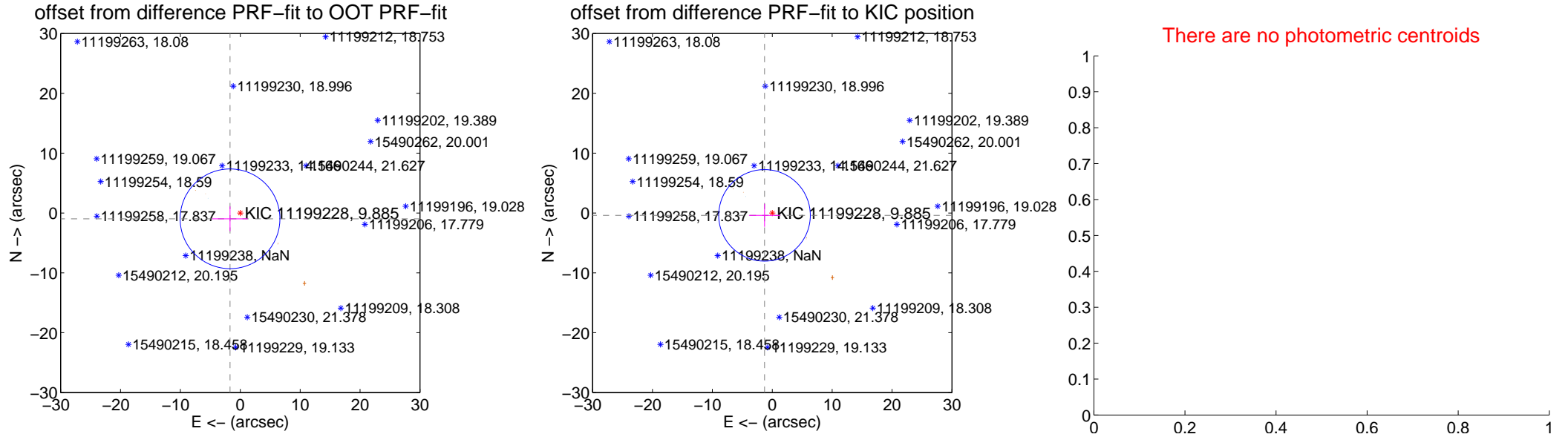
DV Centroid Data

Supplemental centroid analysis for 011199228-01. **Kepler magnitude: 9.88.** Transit SNR 5.13

There are 1 quarters with good PRF difference image offsets

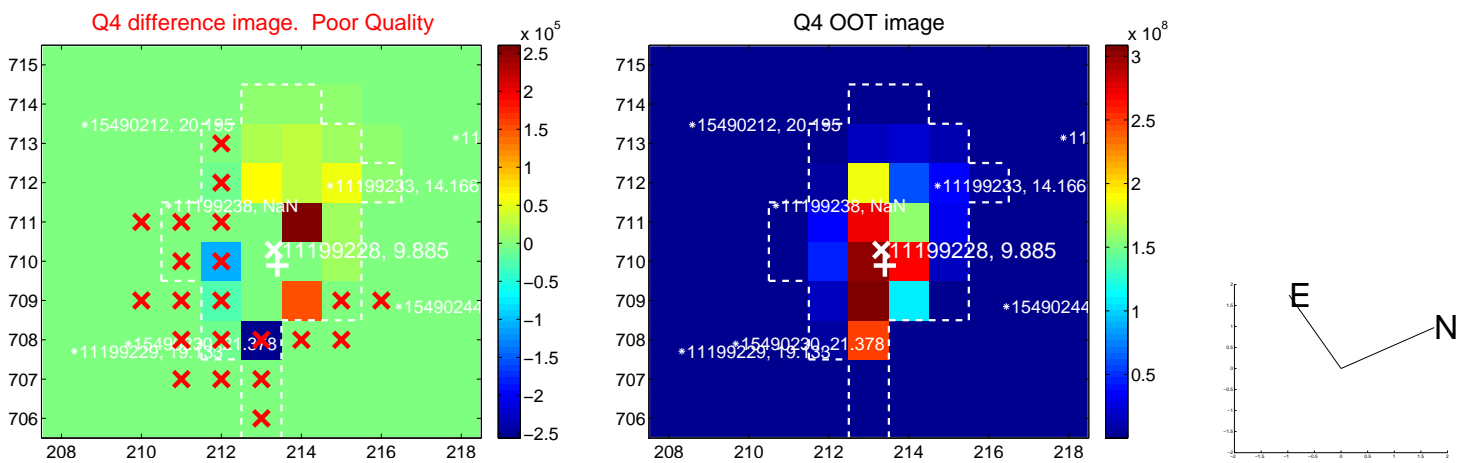
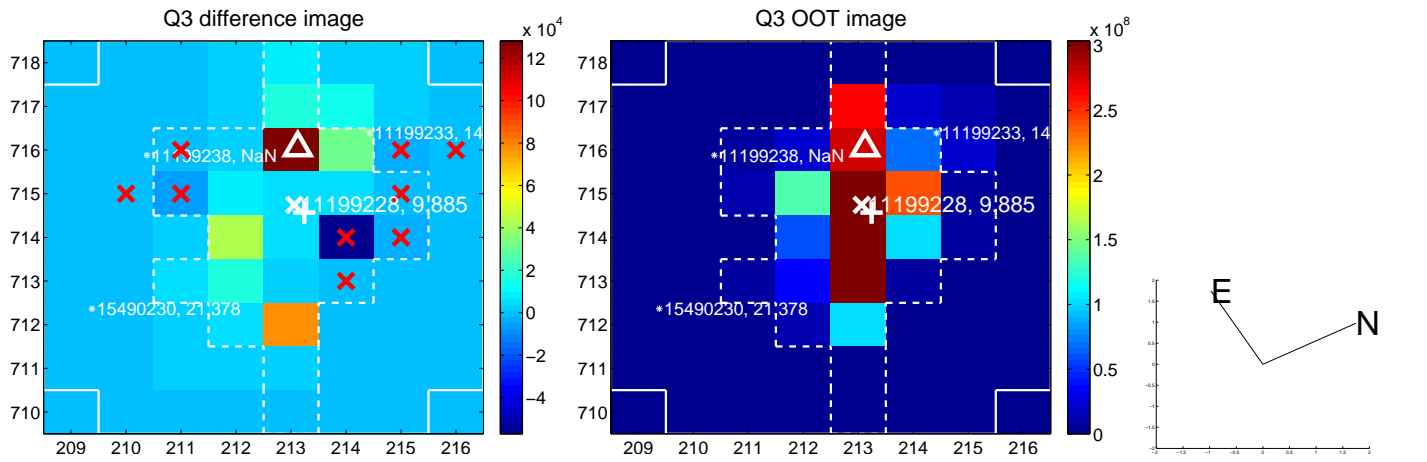
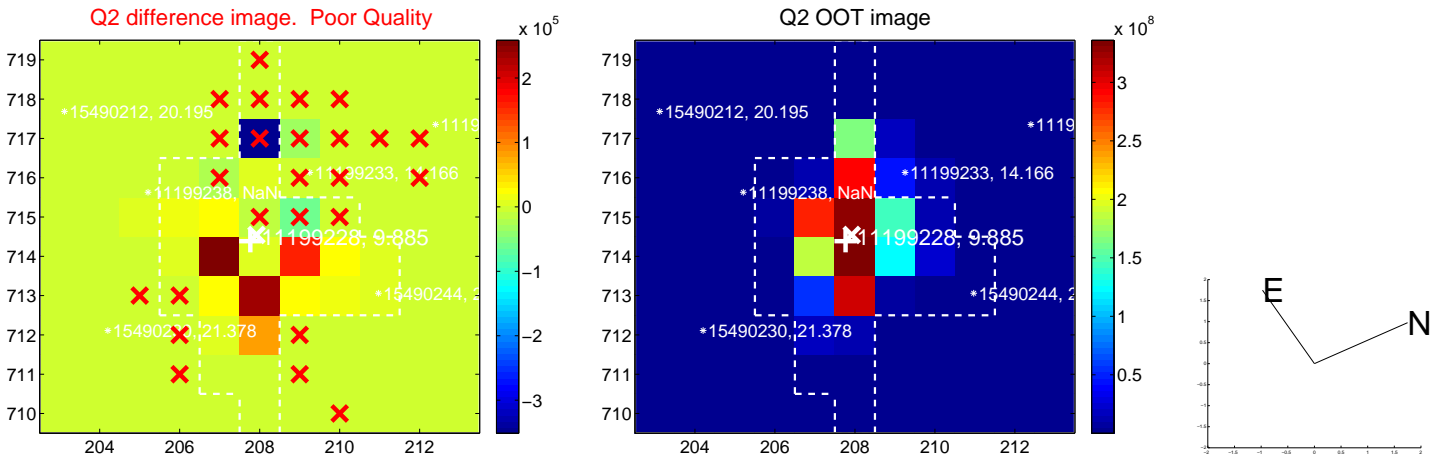
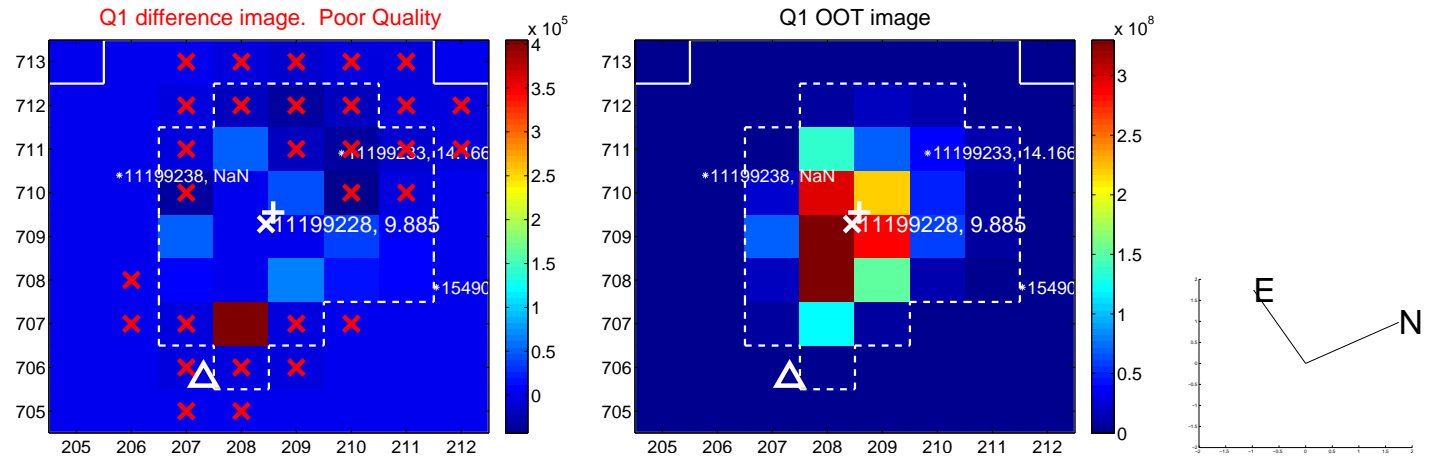
The direct PRF centroid is offset from the target star catalog position by about 1.02 arcsec

| | Distance in arcsec | Distance / σ | Δ RA | Δ Dec |
|---|--------------------|---------------------|-------------------|--------------------|
| PRF-fit source offset from OOT | 1.968 ± 2.777 | 0.71 | 1.714 ± 2.967 | -0.967 ± 2.067 |
| PRF-fit source offset from KIC position | 1.349 ± 2.549 | 0.53 | 1.291 ± 2.599 | -0.392 ± 1.915 |
| photometric centroid source offset | — | — | — | — |

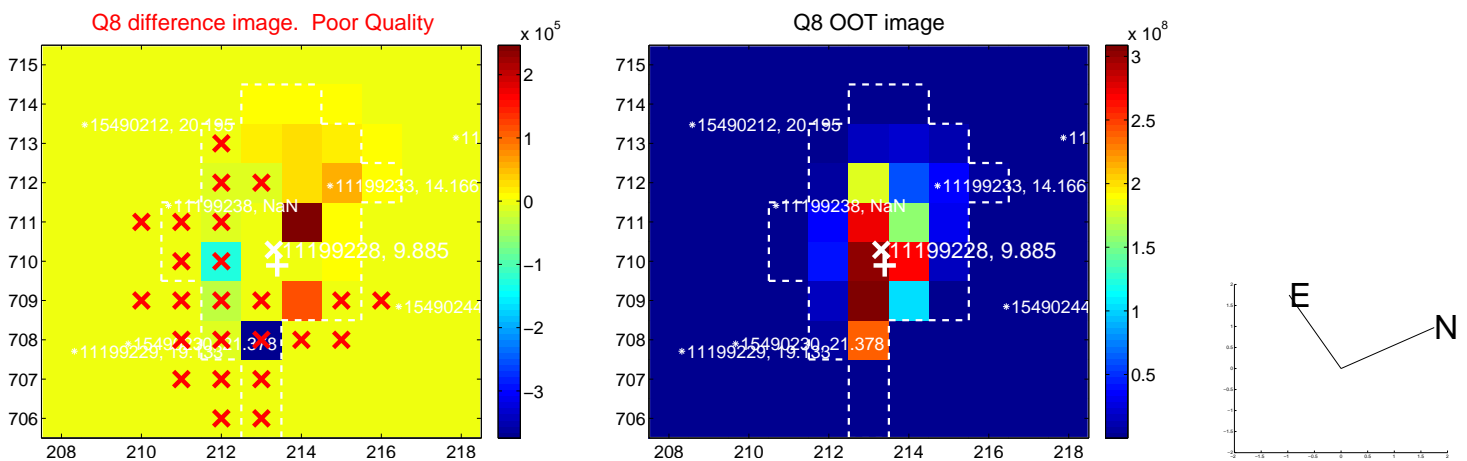
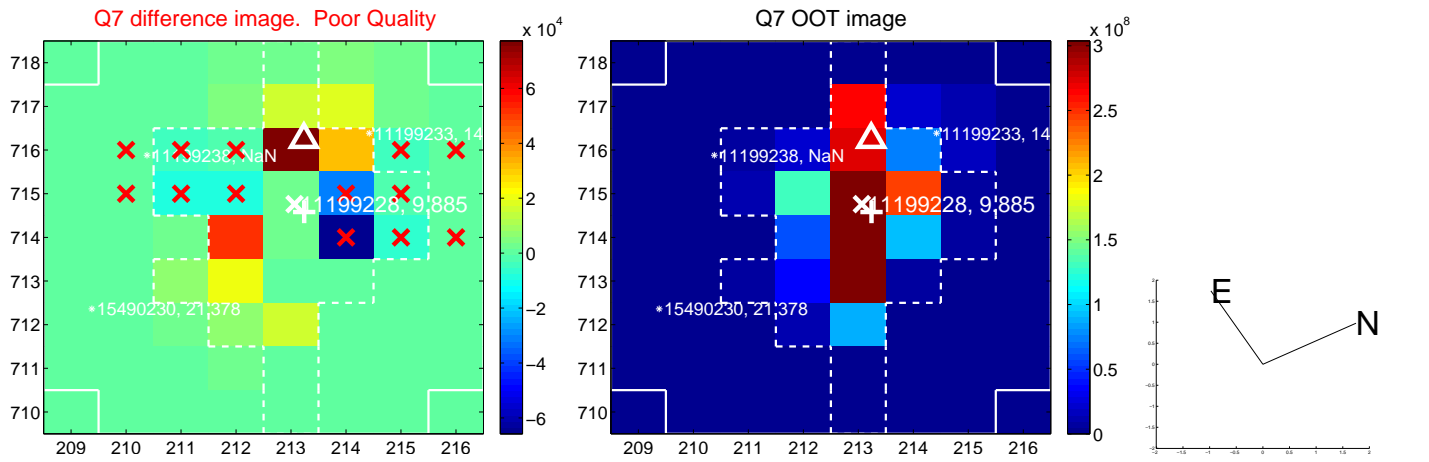
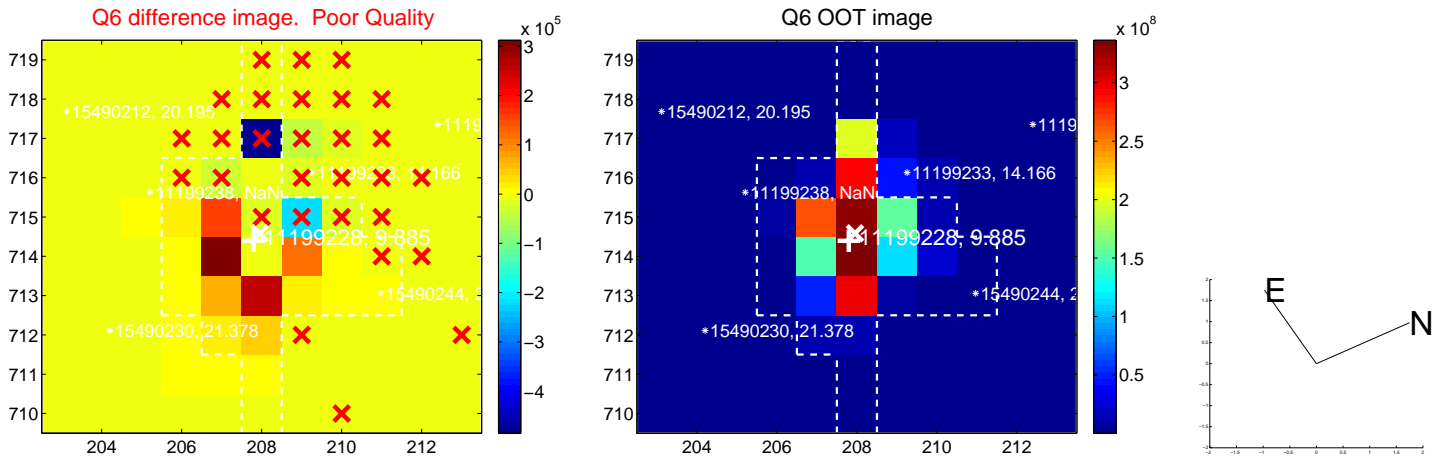
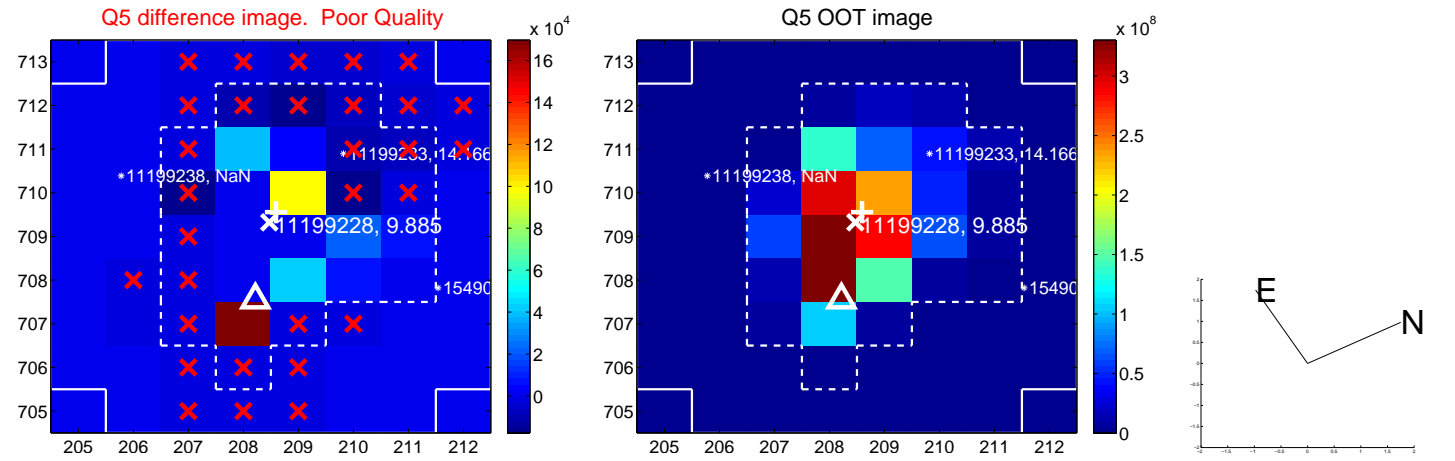


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

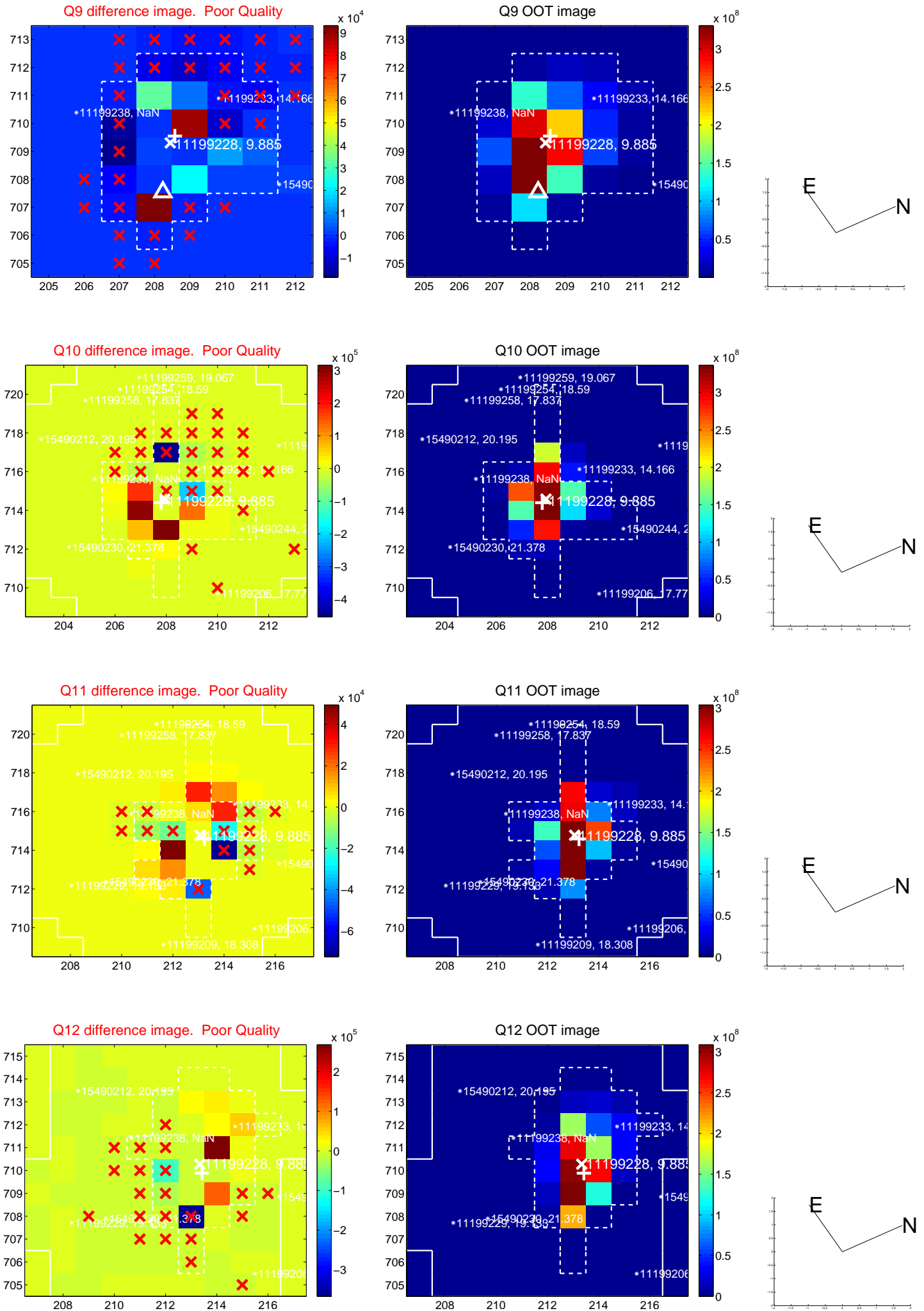
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



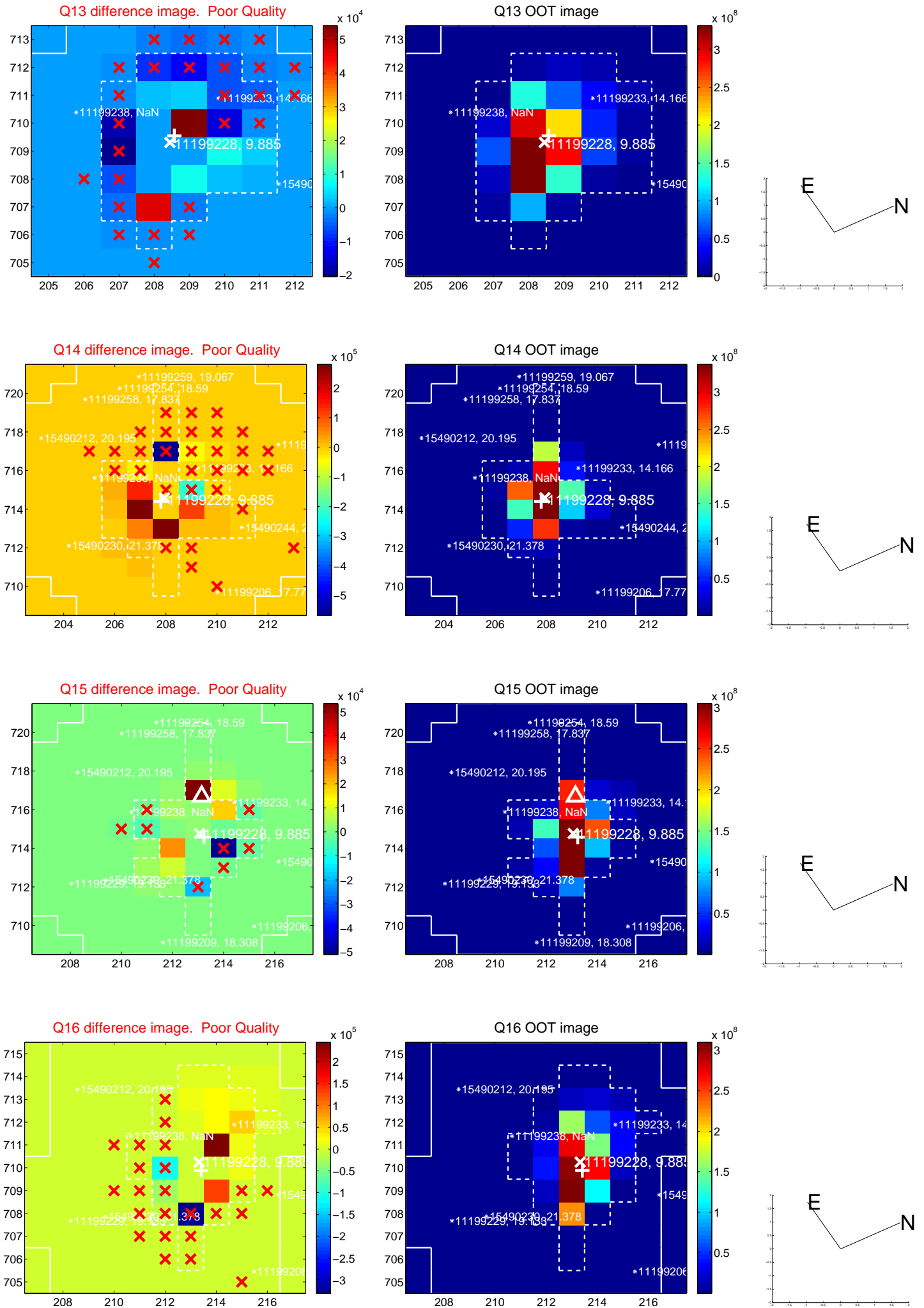
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



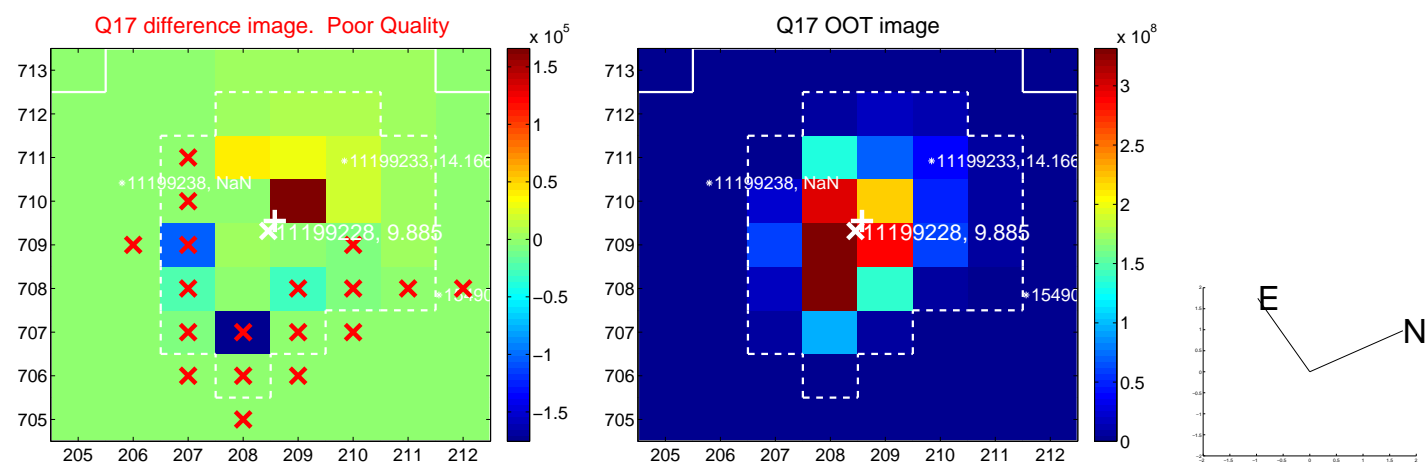
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

Declination

