

KIC 006922995

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}) |
|--------------|----------|------|---------------|--------------|-------------|------------------|-----|-----|-----------------------------|-----------------|------------------------|------------------------|
| 006922995-01 | OBS | No | 4.508817 | 135.467720 | 43.0 | 35.411 | 8.9 | 5.5 | 2.07 | 6768 | 1.37 | 2100.80 |

Robovetter Results

| TCE | Run Type | Disp | Score | N | S | C | E | Comments |
|--------------|----------|------|-------|---|---|---|---|----------|
| 006922995-01 | OBS | FP | 0.00 | 1 | 0 | 0 | 0 | LPP_DV |

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

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

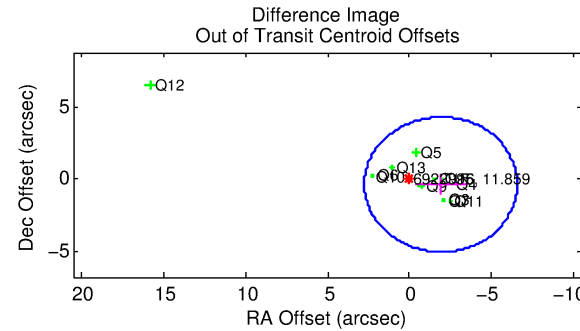
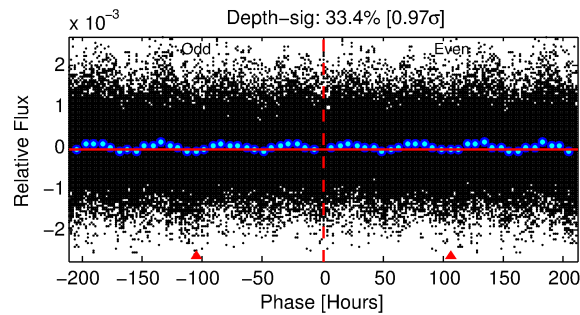
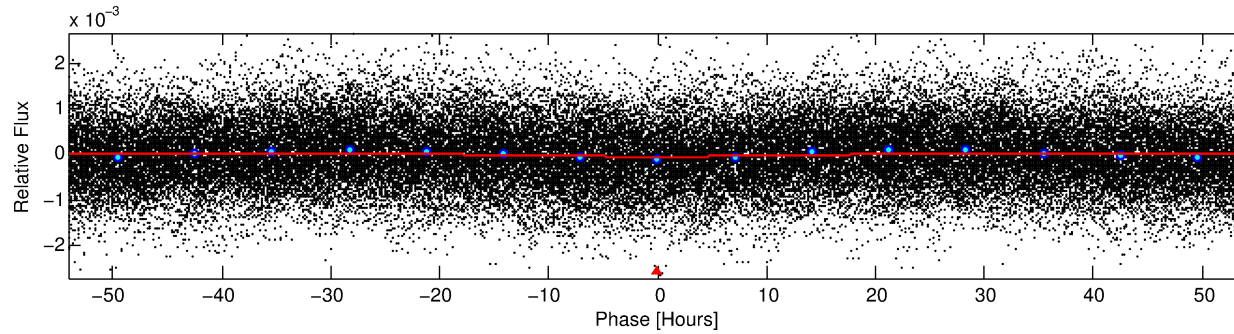
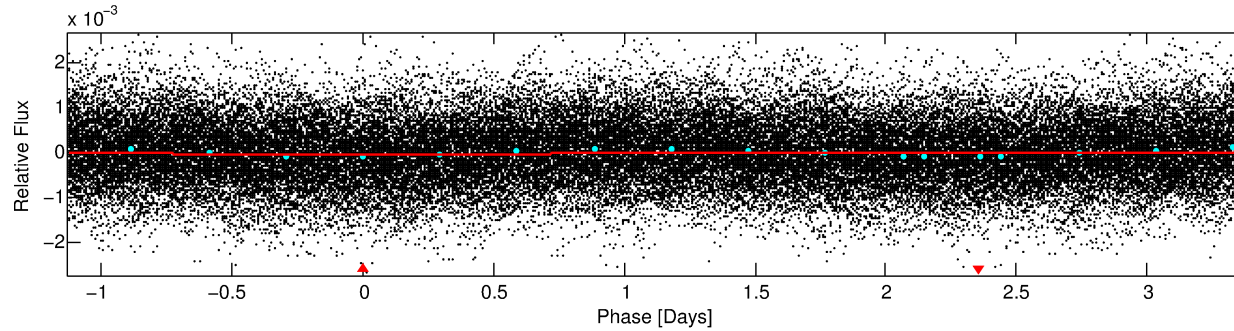
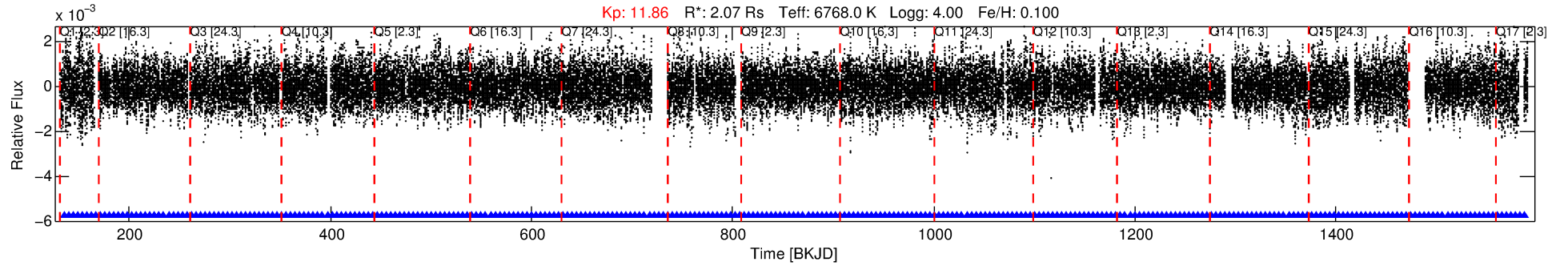
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006922995-01

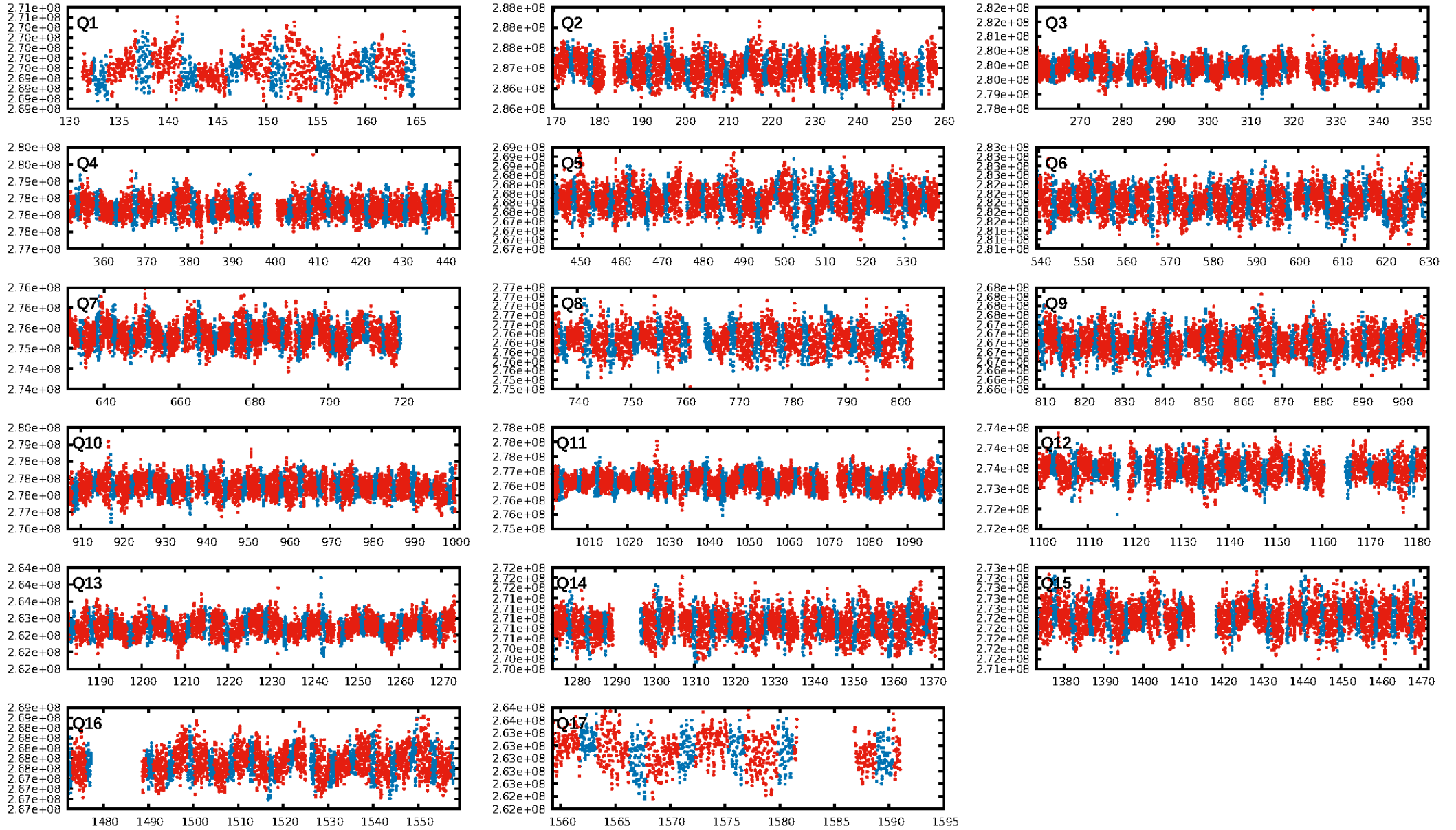
No Significant Match Found

DV One-Page Summary

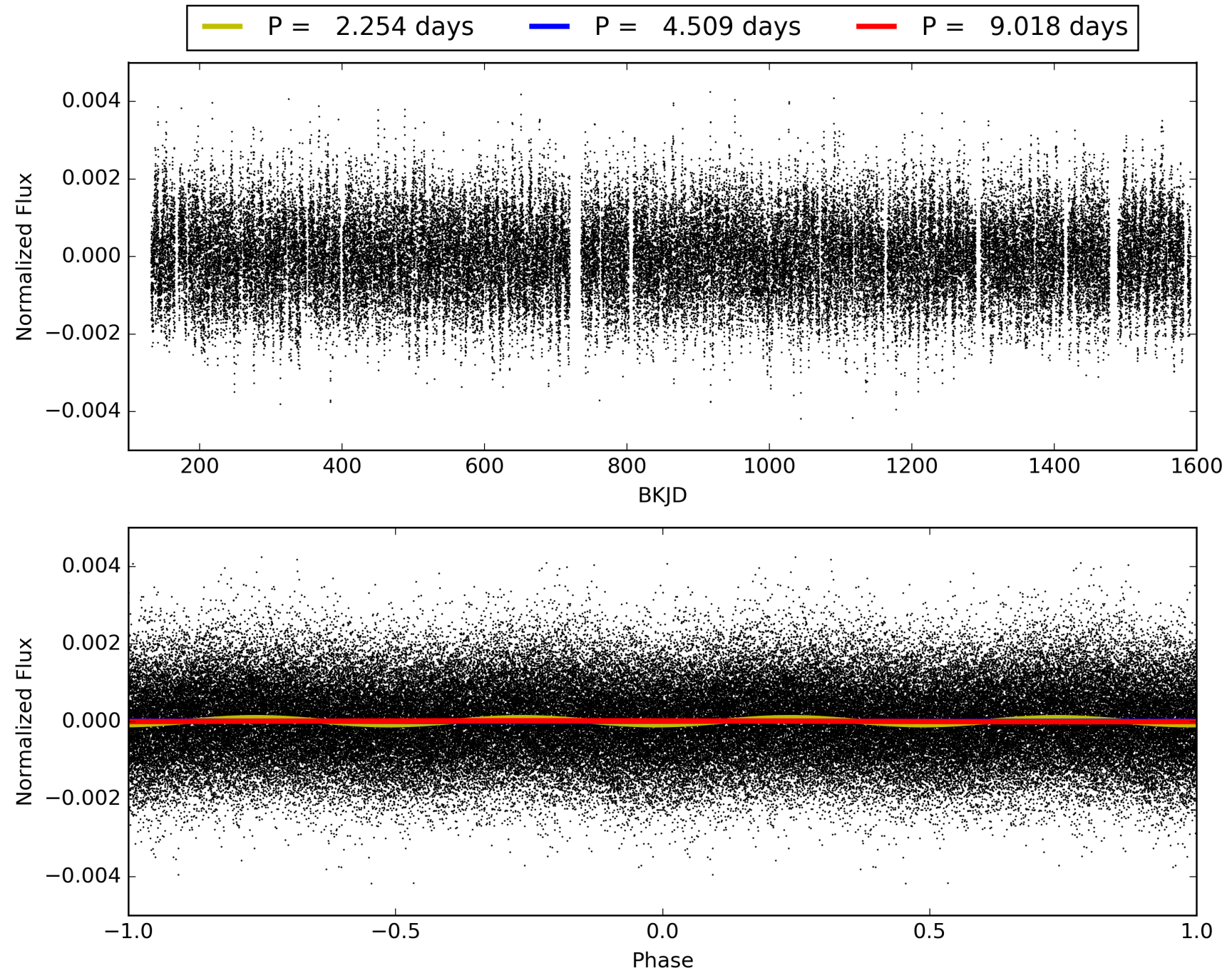
KIC: 6922995 Candidate: 1 of 1 Period: 4.509 d



TCE 006922995-01, PDC Light Curves

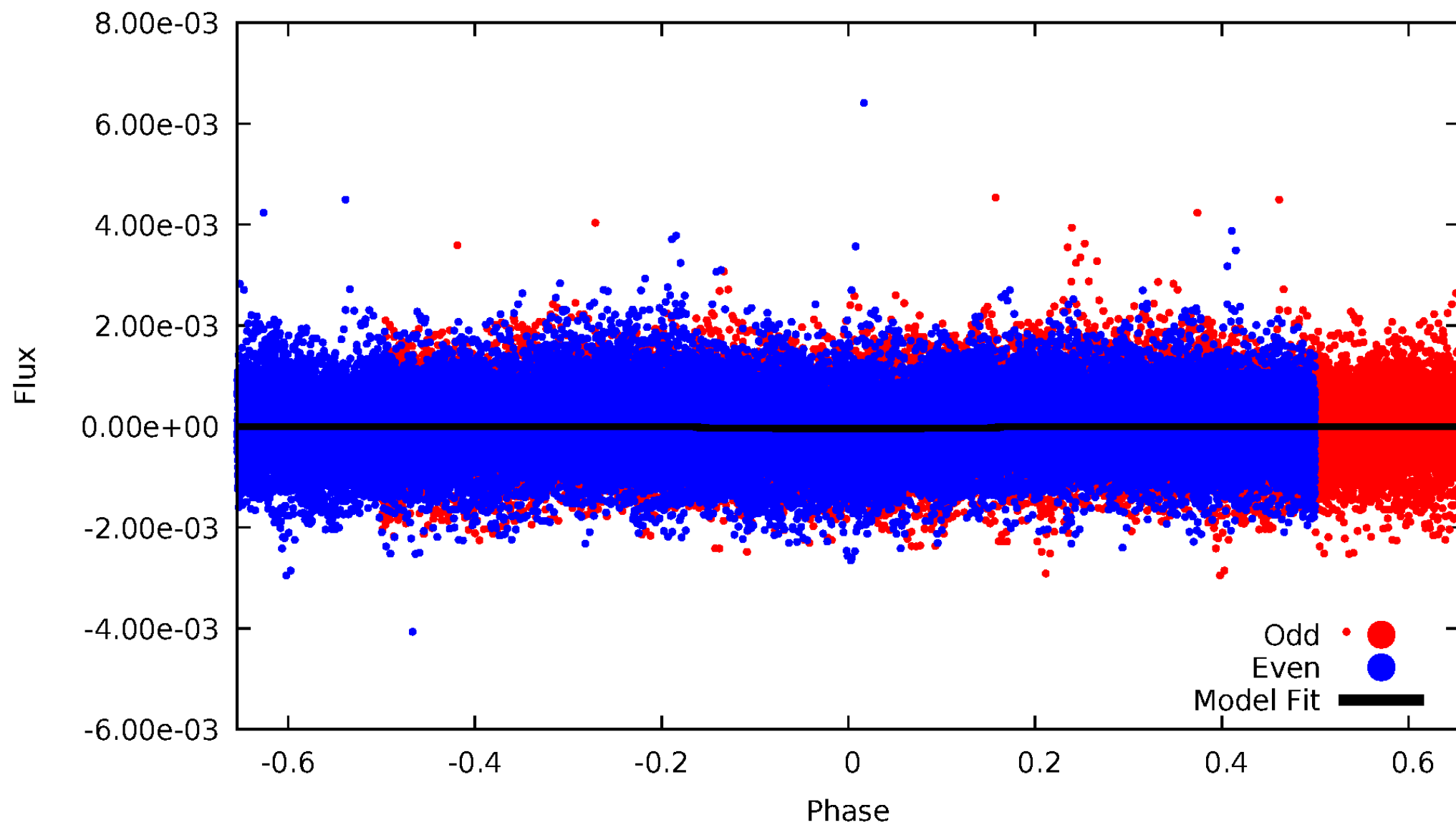


TCE 006922995-01



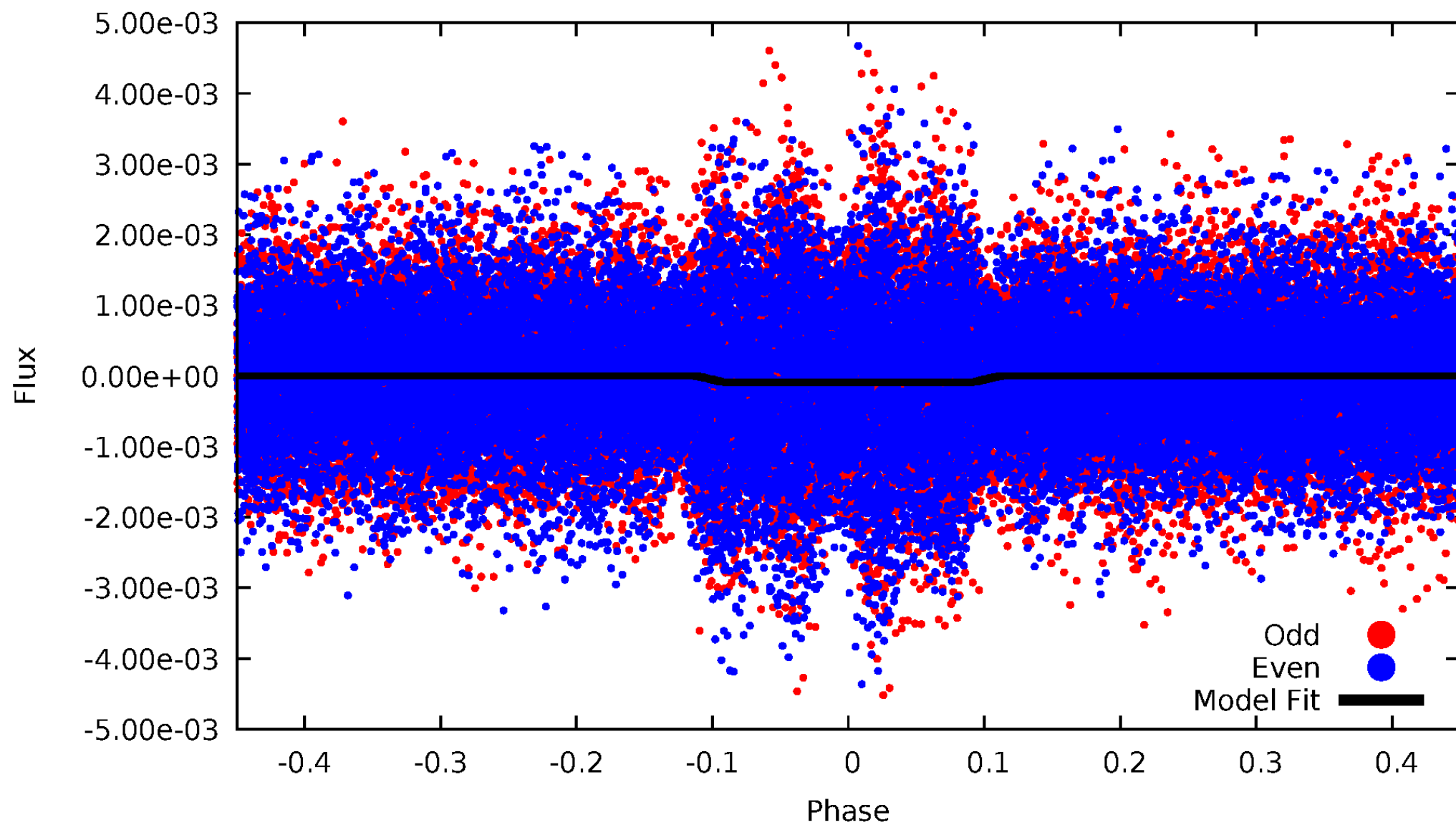
DV Odd/Even

TCE 006922995-01



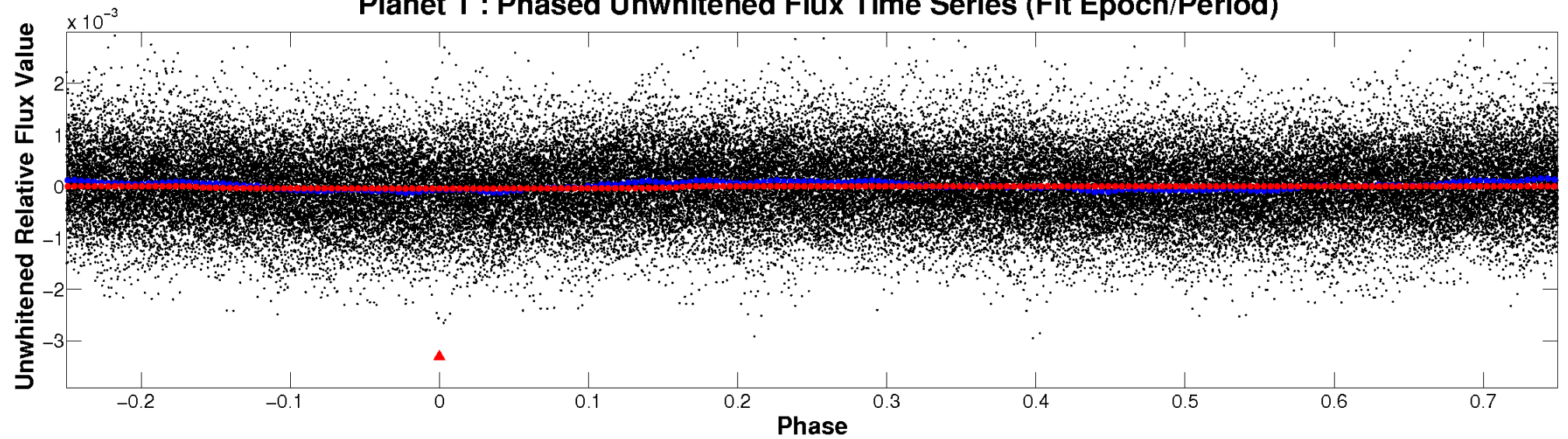
ALT Odd/Even

TCE 006922995-01

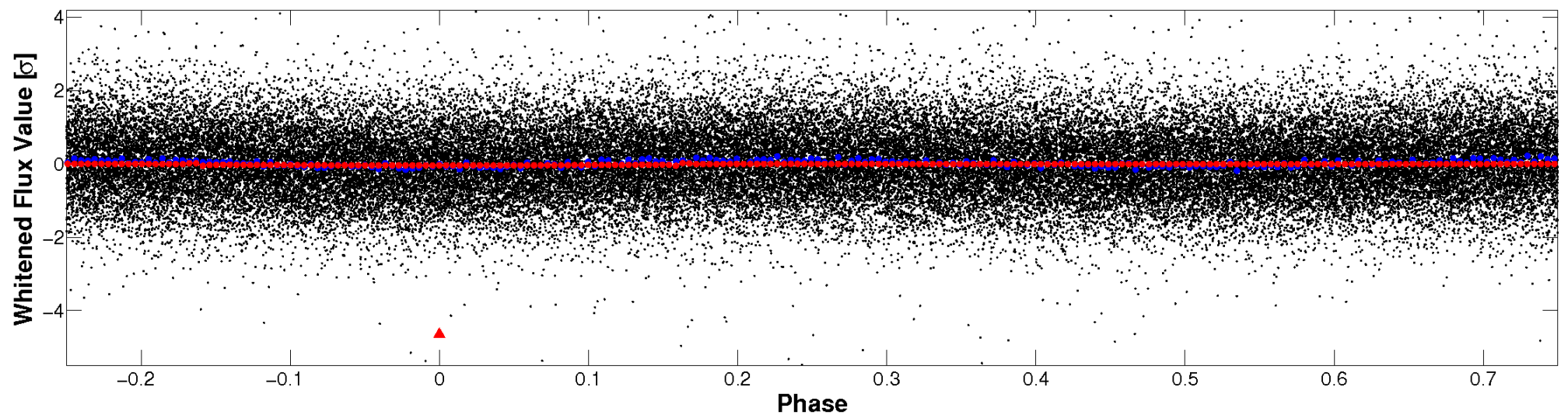


Non-Whitened Vs. Whitened Light Curve

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

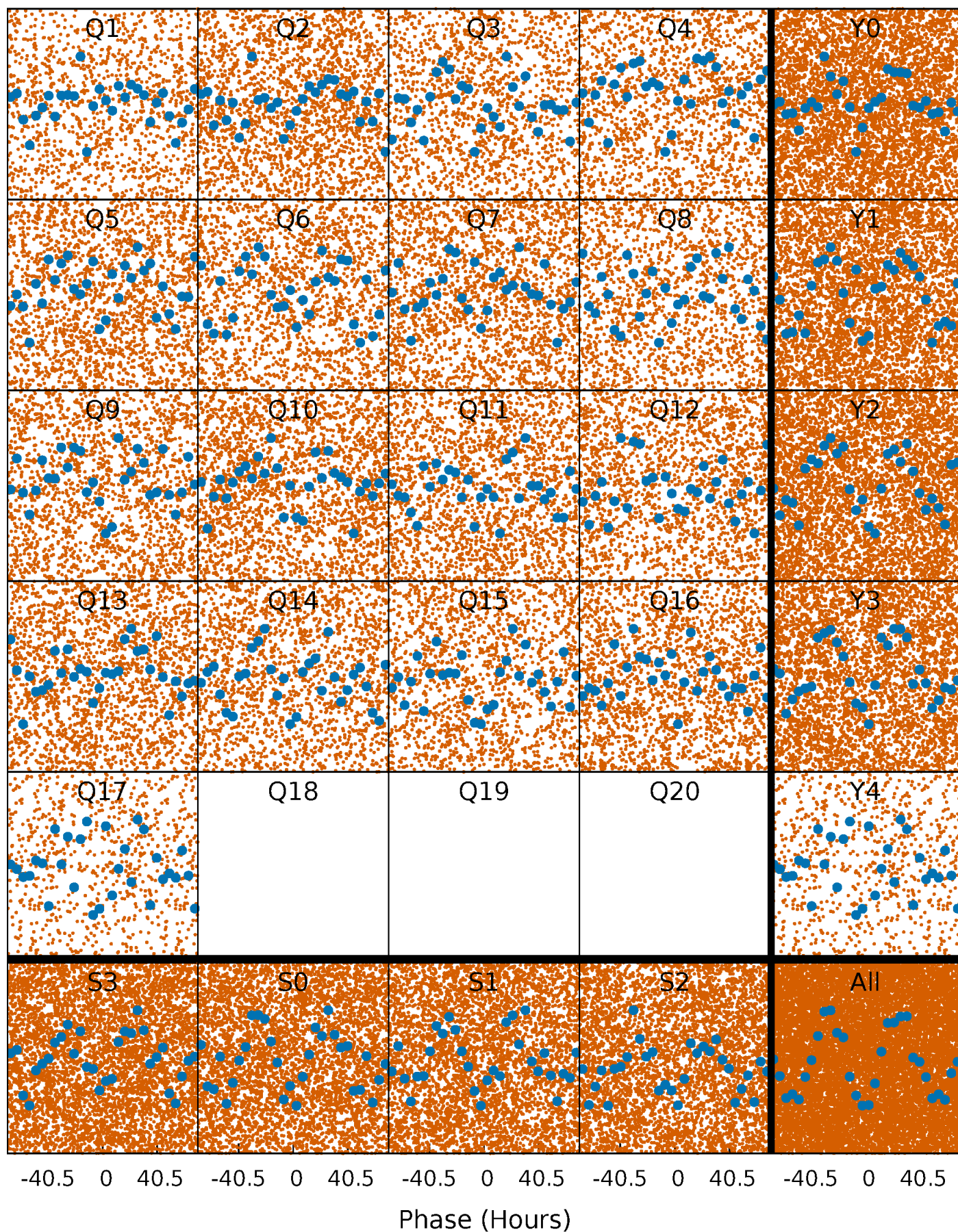


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



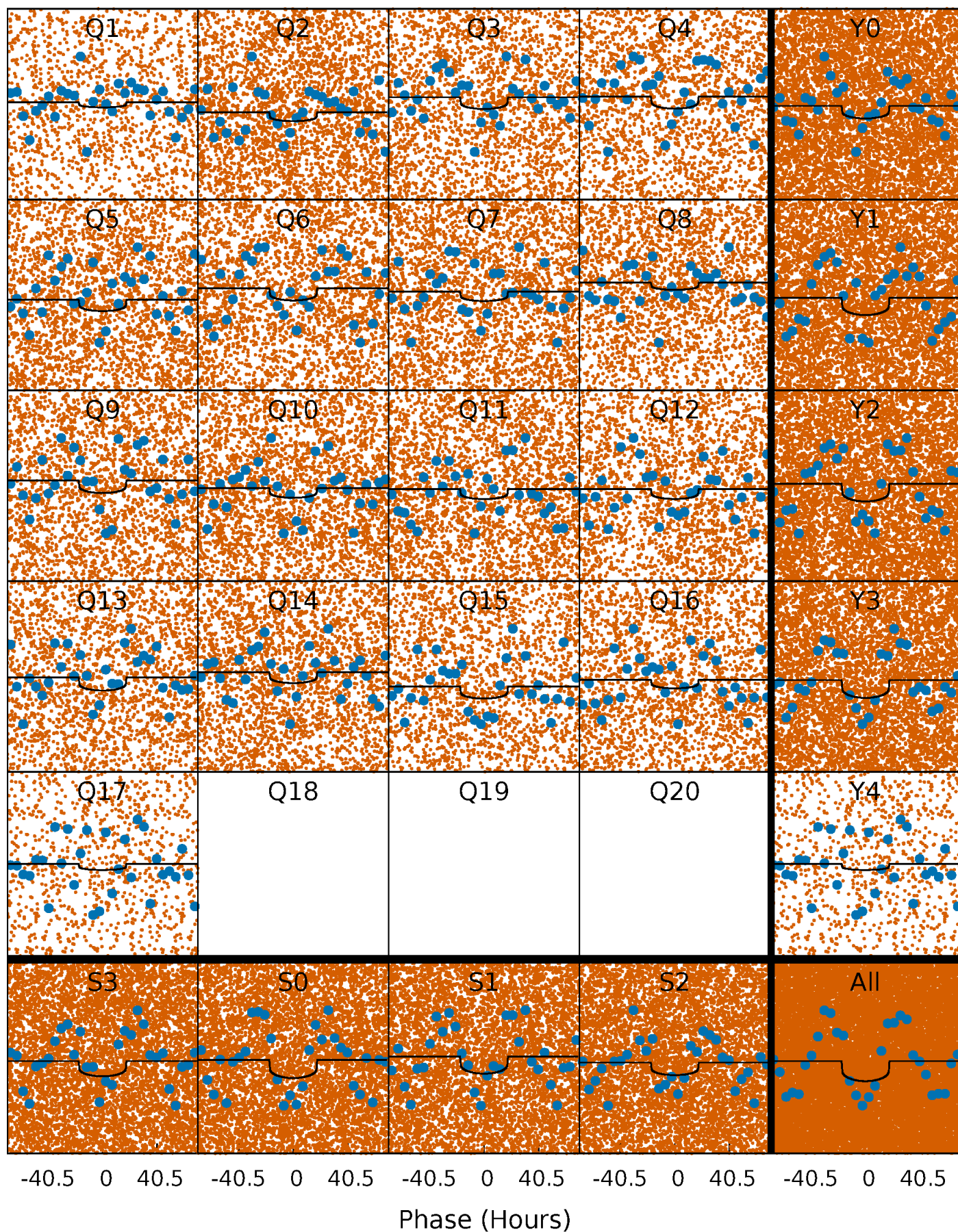
PDC Quarter-Phased Transit Curves

TCE 006922995-01 P= 4.508817 Days $T_0=135.467720$ (BKJD)



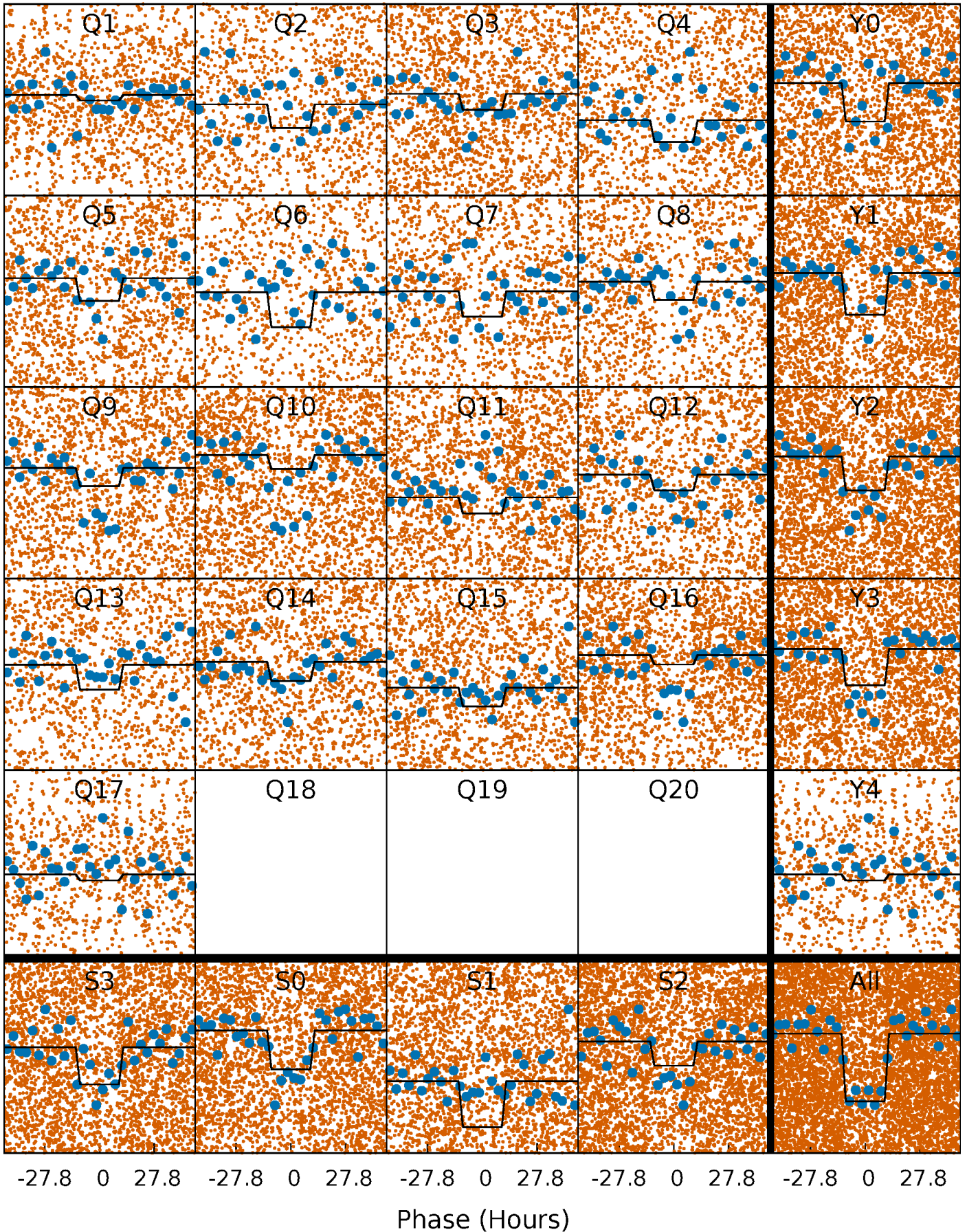
DV Quarter-Phased Transit Curves

TCE 006922995-01 P= 4.508817 Days $T_0=135.467720$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

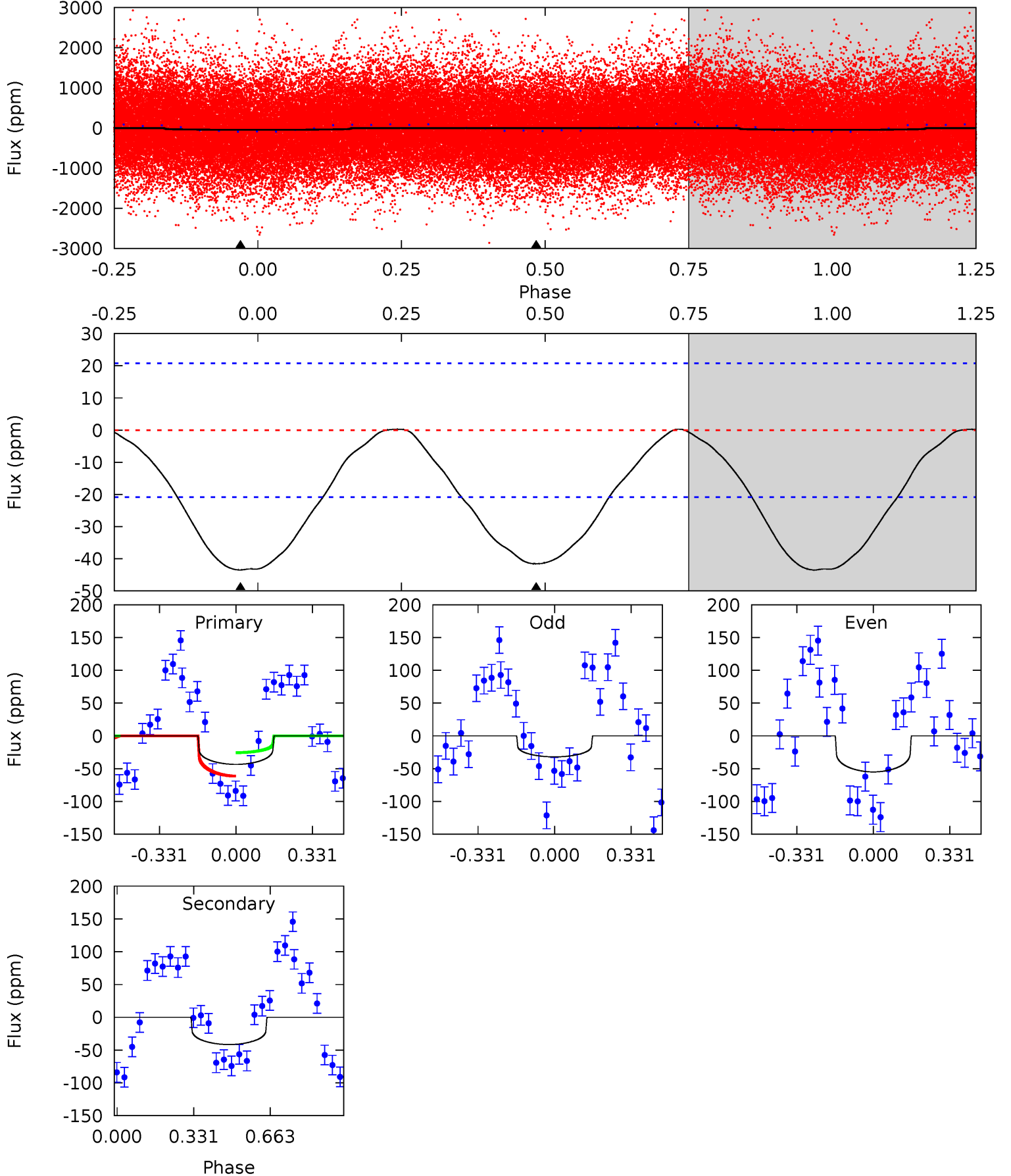
TCE 006922995-01 P= 4.508624 Days $T_0=135.478510$ (BKJD)



DV Model-Shift Uniqueness Test

006922995-01, P = 4.508817 Days, E = 130.958903 Days

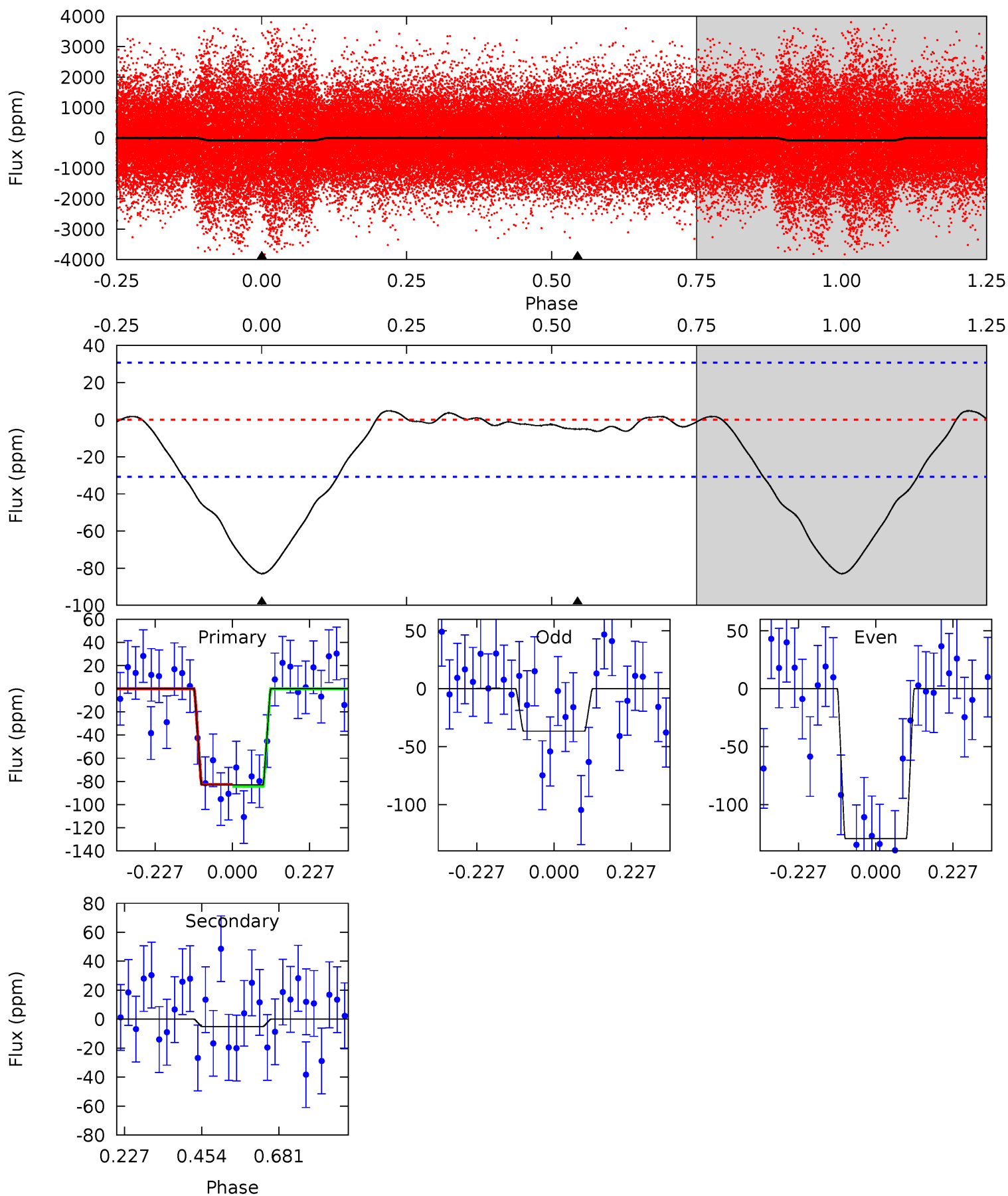
| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|-----|-----|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|------|-------|------|
| 9.01 | 8.61 | 0 | 0 | 4.31 | 0.97 | 0.18 | 9.01 | 9.01 | 8.61 | 8.61 | 2.42 | 1.47 | 0.01 | 3.78 |



Alt Model-Shift Uniqueness Test

006922995-01, P = 4.508624 Days, E = 130.969886 Days

| Pri | Sec | Ter | Pos | FA ₁ | FA ₂ | F _{Red} | Pri-Ter | Pri-Pos | Sec-Ter | Sec-Pos | Odd-Evn | DMM | Shape | TAT |
|------|------|-----|-----|-----------------|-----------------|------------------|---------|---------|---------|---------|---------|--------|-------|------|
| 11.9 | 0.72 | 0 | 0 | 4.39 | 1.21 | 0.29 | 11.9 | 11.9 | 0.72 | 0.72 | 6.50 | -126.1 | 0.05 | 0.11 |



Stellar Parameters For KIC 006922995

| | $T_{\text{eff}} (K)$ | $\log(g)$ | $[\text{Fe}/\text{H}]$ | $R (R_{\odot})$ | $M (M_{\odot})$ | $p_{\star} (\text{g}\cdot\text{cm}^{-3})$ |
|--------|----------------------|---------------------------|---------------------------|---------------------------|---------------------------|---|
| | 6768^{+190}_{-262} | $3.999^{+0.231}_{-0.189}$ | $0.100^{+0.250}_{-0.300}$ | $2.073^{+0.650}_{-0.650}$ | $1.563^{+0.210}_{-0.289}$ | $0.247^{+0.389}_{-0.115}$ |
| | +3%/-4% | +6%/-5% | +250%/-300% | +31%/-31% | +13%/-18% | +157%/-46% |
| 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 006922995-01 / KOI

| Detrend | Depth (ppm) | $R_p (R_{\oplus})$ | $T_{max} (K)$ | $T_{obs} (K)$ | A_{obs} |
|---------|-------------|------------------------|----------------------|------------------------|---------------------------|
| DV | -42 ± 5 | $1.34^{+0.72}_{-0.63}$ | 2401^{+200}_{-199} | 6990^{+3483}_{-1335} | 48^{+121}_{-27} |
| Alt. | -5 ± 7 | $2.10^{+0.81}_{-0.69}$ | 2406^{+194}_{-197} | 3577^{+896}_{-6881} | $2.159^{+5.027}_{-2.894}$ |

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 $A_{obs} \gg 1.0$

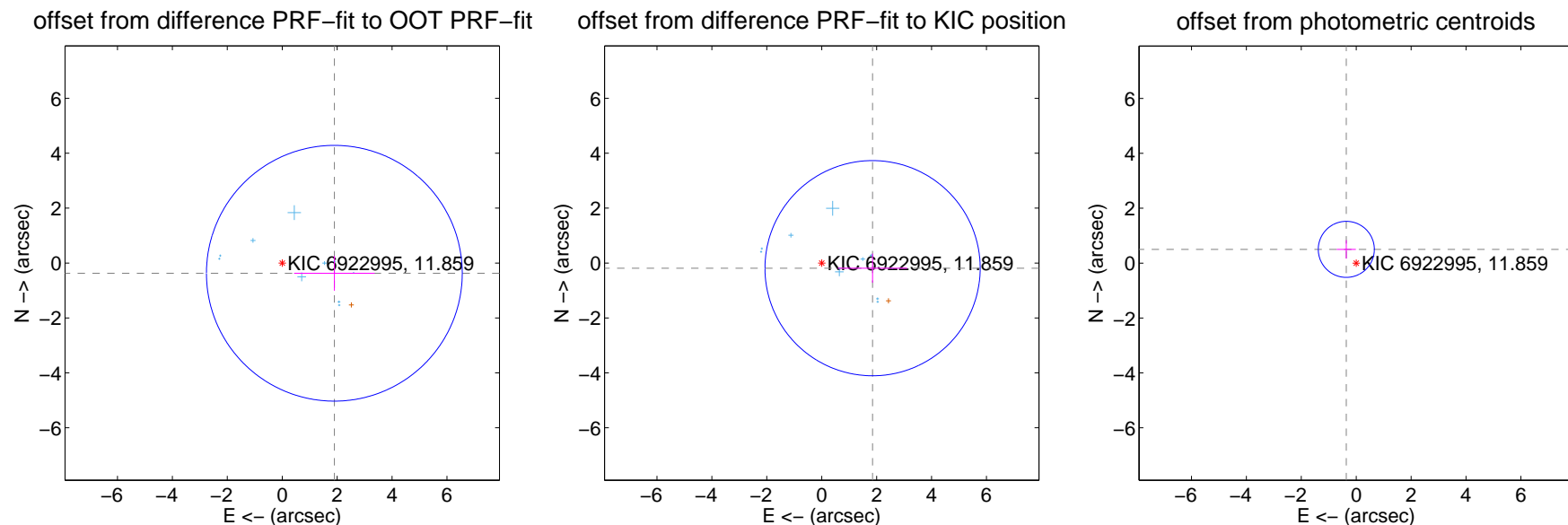
DV Centroid Data

Supplemental centroid analysis for 006922995-01. **Kepler magnitude: 11.86.** Transit SNR 5.47

There are 10 quarters with good PRF difference image offsets

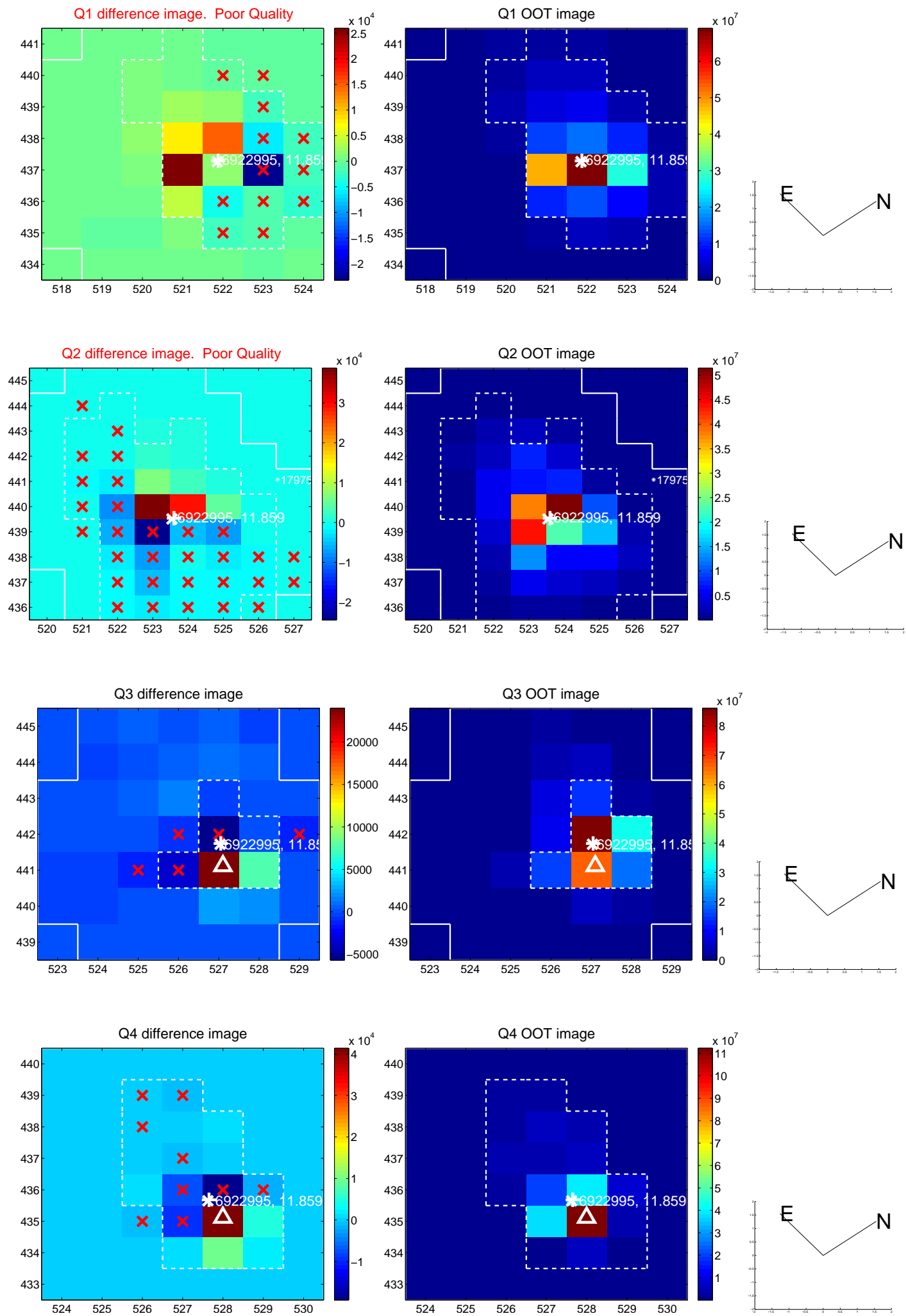
The direct PRF centroid is offset from the target star catalog position by about 0.23 arcsec

| | Distance in arcsec | Distance / σ | Δ RA | Δ Dec |
|---|--------------------|---------------------|--------------------|--------------------|
| PRF-fit source offset from OOT | 1.935 ± 1.553 | 1.25 | -1.899 ± 1.466 | -0.372 ± 0.636 |
| PRF-fit source offset from KIC position | 1.862 ± 1.306 | 1.43 | -1.852 ± 1.265 | -0.188 ± 0.531 |
| photometric centroid source offset | 0.62 ± 0.34 | 1.81 | 0.36 ± 0.35 | 0.50 ± 0.34 |

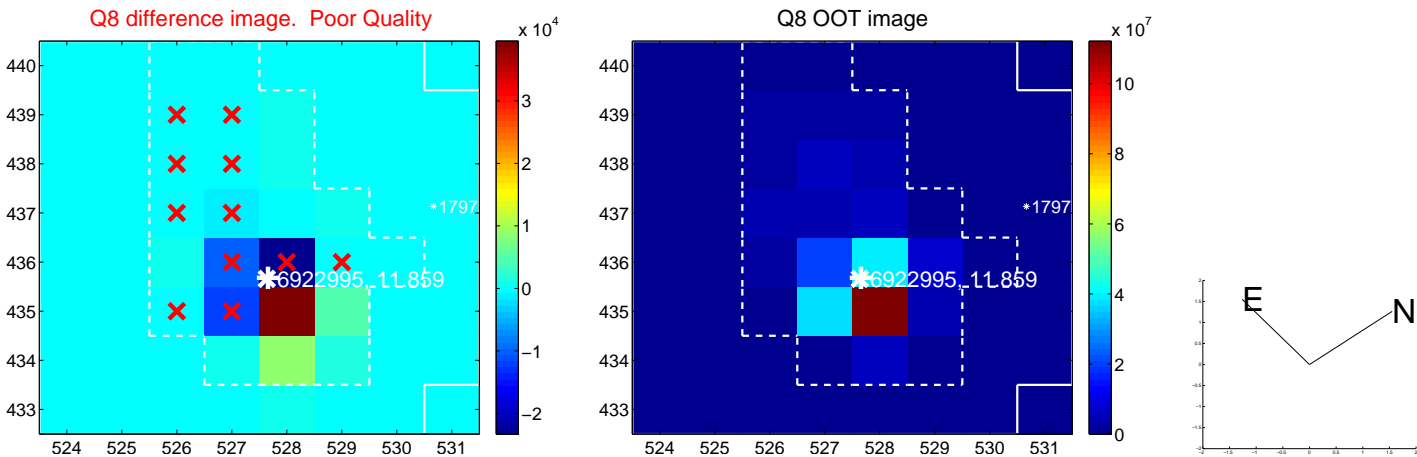
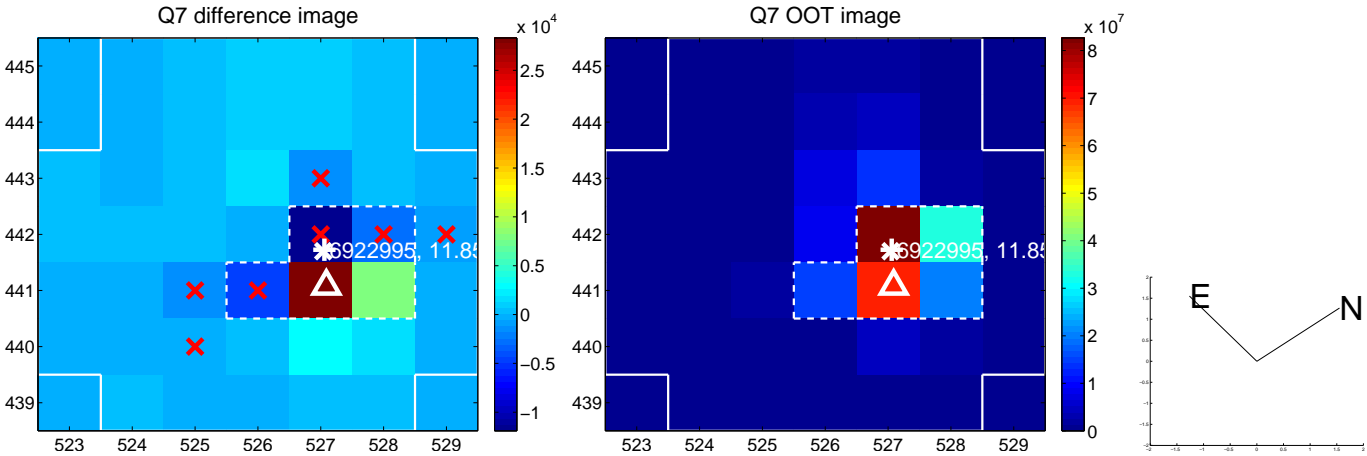
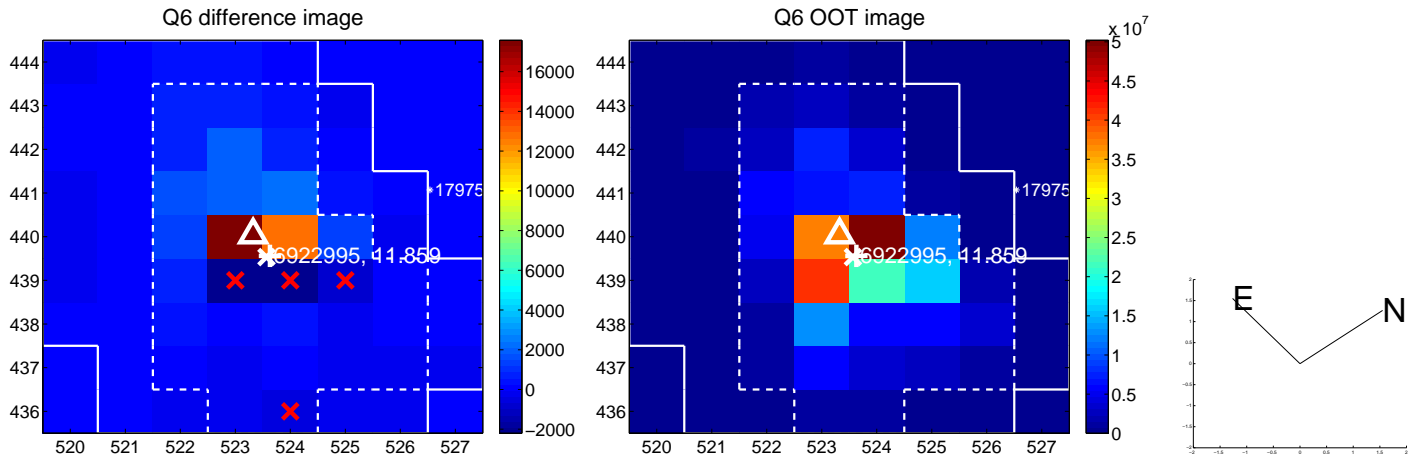
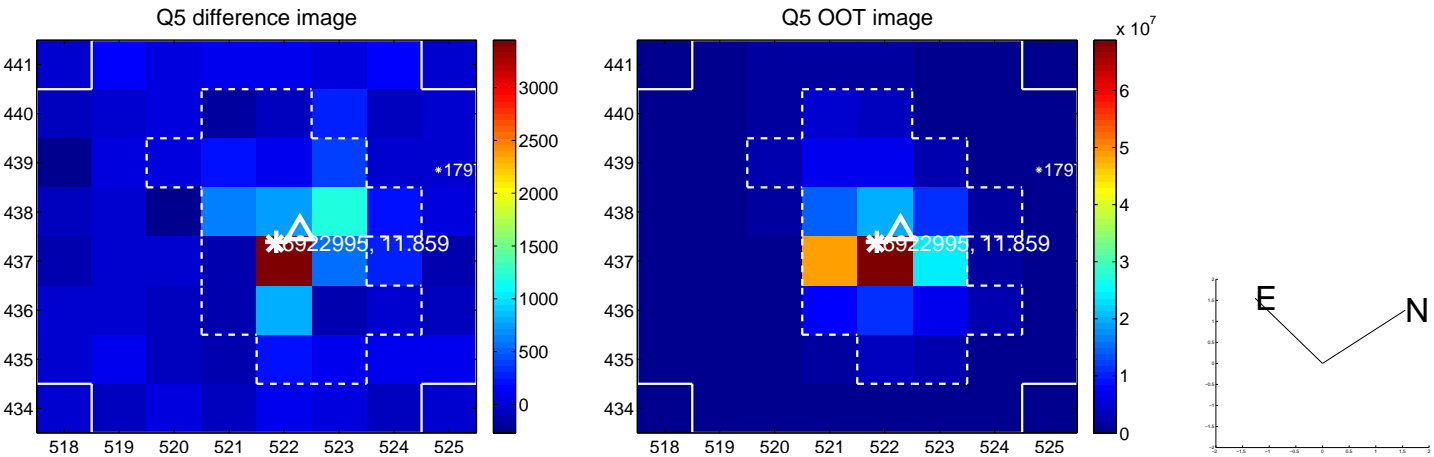


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

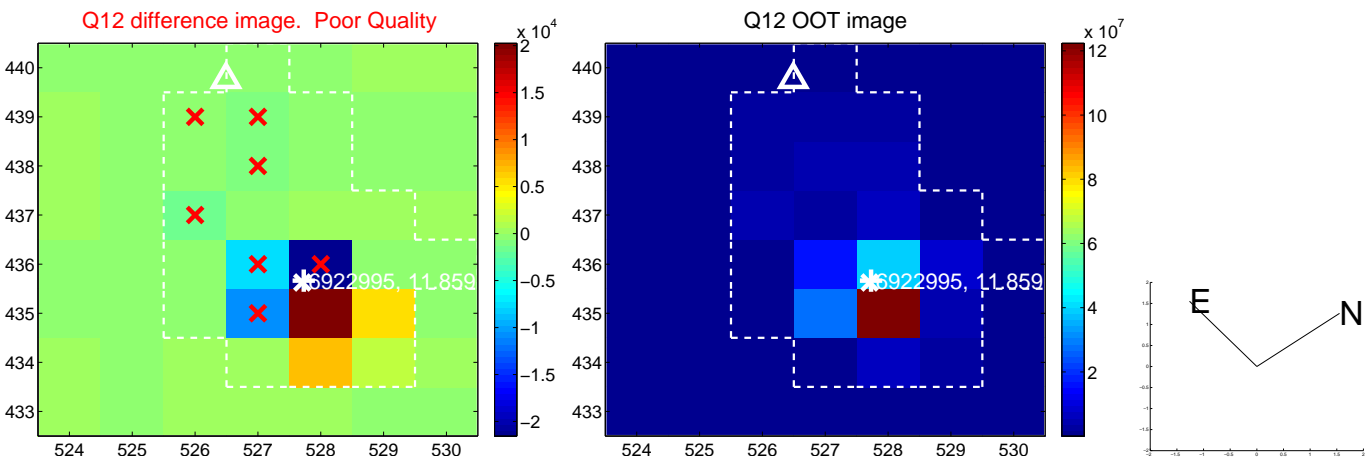
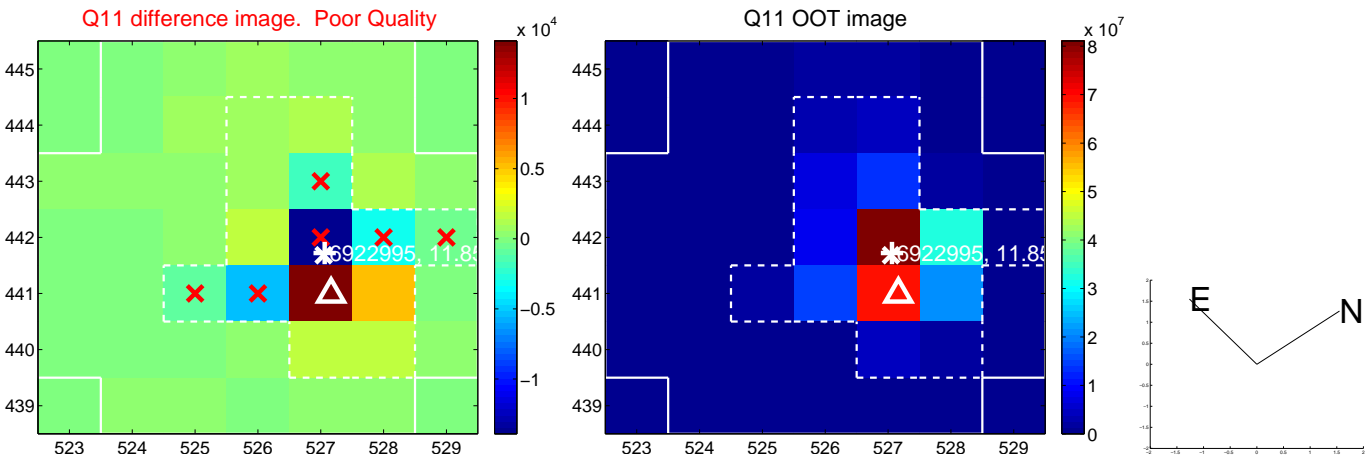
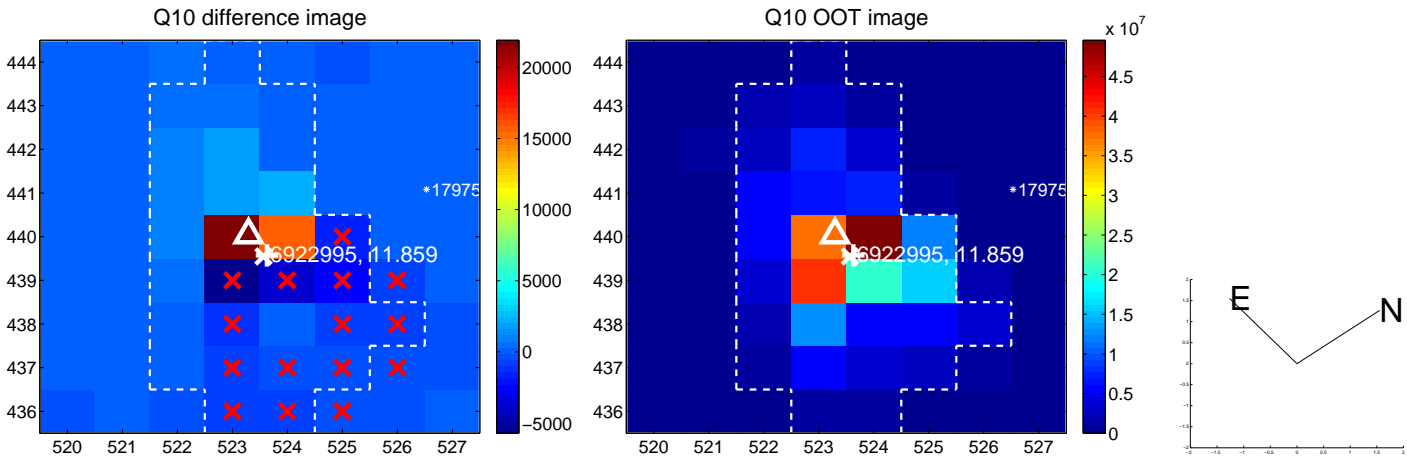
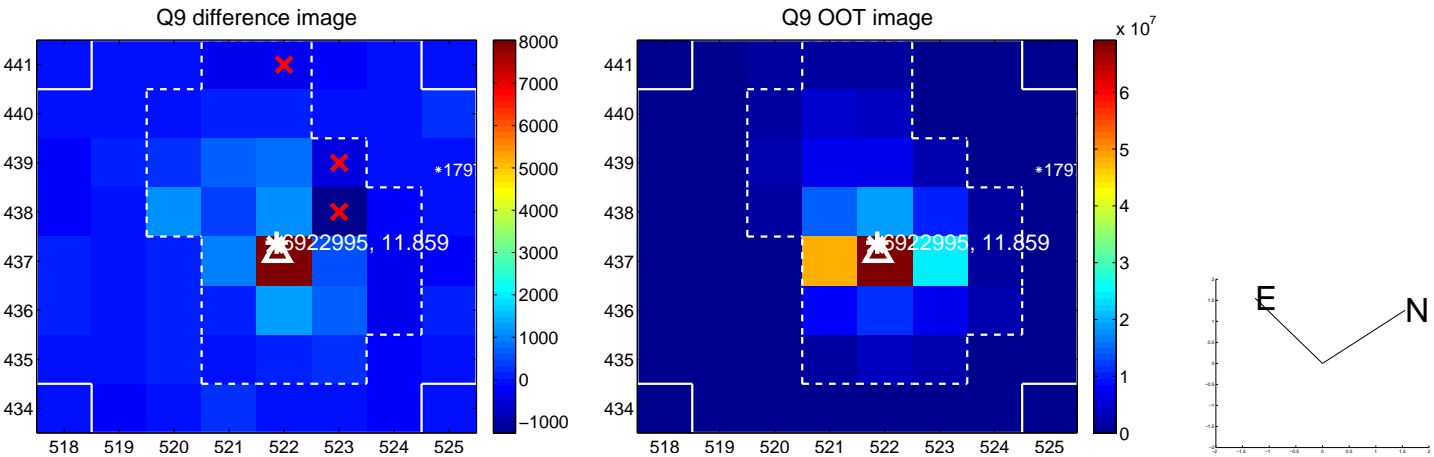
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



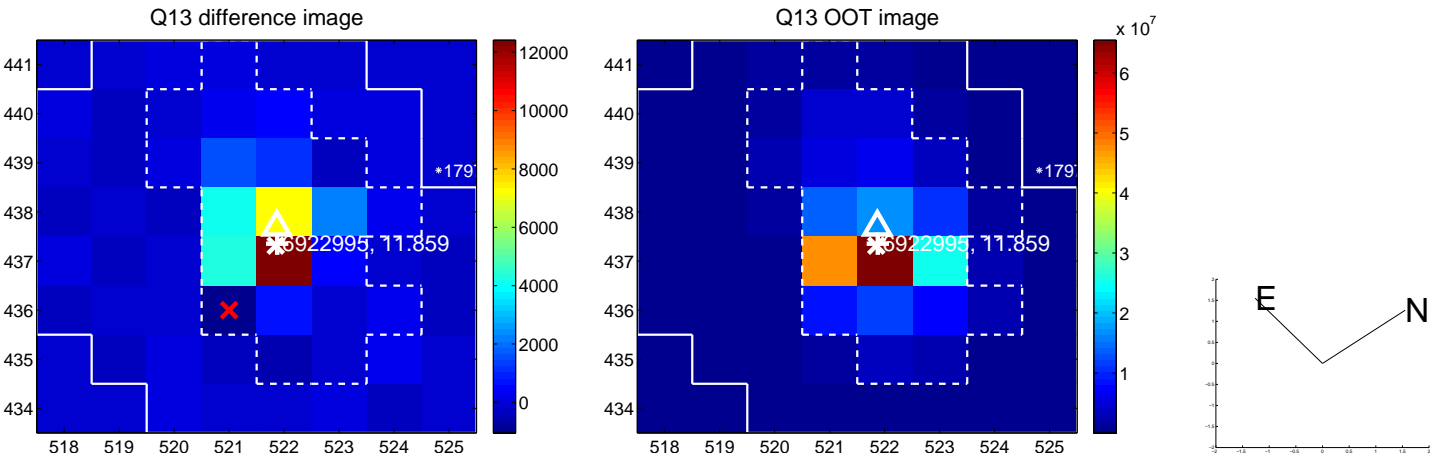
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

