

Catching a Dwarf Nova in Outburst: A Single-Night Time Series of SS Cygni

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Time-series photometry of the SS Cygni field — a dwarf nova caught active (in outburst)

Abstract. We present dense single-night, three-color time-series photometry of the dwarf nova SS Cygni with a 60 mm refractor at the Lowell Observatory. Over 6.4 hours (480 Green frames plus sparse B/R color epochs) we caught SS Cyg not in quiescence but ~ 1.4 mag above its Gaia DR3 mean — an active, outburst state. The Green light curve shows a smooth ~ 0.17 mag modulation on a timescale comparable to the 6.6 h orbital period (faintest near transit, so intrinsic rather than an airmass effect), with rapid ~ 52 mmag flickering superimposed and suppressed as expected for an optically-thick outburst disk. The same frames yield light curves for 370 catalogued variables (194 significant); 113 periodic field variables fold coherently onto their VSX catalog ephemerides — clean eclipsing binaries and a high-amplitude δ Scuti among them — independently validating the photometry. The blue band was lost to sparse color sampling, a cadence lesson for future runs.

1 Introduction

SS Cygni is the prototype of the SS Cyg subclass of dwarf novae — a cataclysmic variable in which a white dwarf accretes gas from a close K/M-dwarf companion through an accretion disk. Discovered in 1896, it is one of the brightest and most-monitored variable stars in the sky (~ 114 pc, 6.6-hour orbit). Every ~ 7 – 8 weeks a thermal-viscous instability¹ in the disk triggers a dwarf-nova outburst that brightens it 4–5 magnitudes for one to two weeks before it fades to quiescence; between and during these events the disk and the bright spot where the accretion stream strikes it flicker stochastically on timescales of seconds to minutes — irregular variability that never repeats.²

This run is a dense, single-night monitoring campaign — a continuous ~ 6.4 -hour Green time series to resolve the flickering, plus sparse blue/red color epochs. The target's high proper motion ($\sim 3.2''$ since the J2000 catalog epoch, being only ~ 114 pc away) placed it beyond the standard catalog-match tolerance, so a widened labeling match was used to recover it.

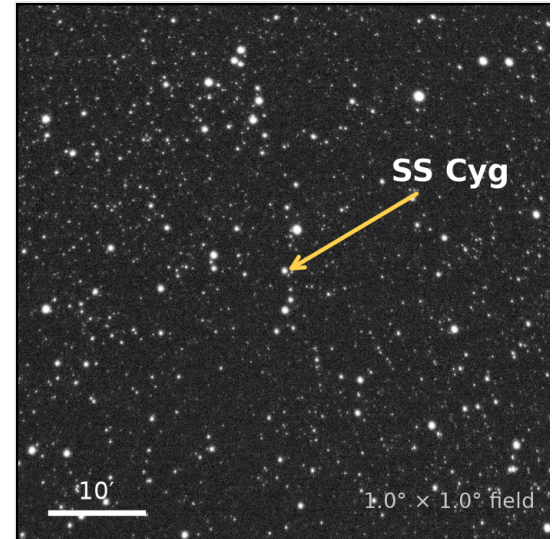


Figure 1. A $\sim 1^\circ$ cutout of the SS Cygni field from a session G-band frame (author's own data; asinh stretch, black background). SS Cyg is arrowed; a $10''$ scale bar is shown. The full sensor field is $2.96^\circ \times 2.01^\circ$ (see Figure 2).

2 Observations & Data Reduction

Equipment. Apertura 60 mm FPL-53 doublet APO refractor (371 mm focal length), ZWO ASI294MM Pro cooled monochrome camera (bin 1, $2.315 \mu\text{m}$ pixels, $1.28''/\text{px}$), ZWO Premium 1.25" LRGB filter set (B, G, R used here). Images acquired at the Lowell Observatory, Flagstaff, AZ (35.20° N, 111.67° W).

Data. 486×30 s frames of the SS Cygni field ($2.96^\circ \times 2.01^\circ$) — 480 in Green plus 3 each in B and R — on 2026-07-09 over ~ 6.4 hours. The sensor cooled from -14.8°C to -19.8°C (the dark-library temperature) across the night, so late frames are better dark-matched than early ones. A German-equatorial meridian flip ~ 5.3 h in rotated the field 180° ; frames on both sides carry their own plate solution and are co-registered in sky coordinates. Calibrated with a master dark; no flats.

Reduction. Source detection (DAOSStarFinder) and aperture photometry with sigma-clipped annulus sky subtraction (photutils³); per-frame astrometry refit against Gaia DR3⁴ positions from the varstar database; per-frame zero points from an ensemble of bright unsaturated field stars present in $\geq 60\%$ of frames, excluding catalogued variables, with iterative high-scatter rejection. Magnitudes are instrumental G anchored to a Gaia-G zero point (not transformed to a standard system). Variables were identified by cross-match against the AAVSO VSX catalog⁵ (10.3 M objects, accessed via VizieR⁶ and enriched with Gaia DR3); coordinate, WCS and time handling use Astropy⁷. Nearby high-proper-motion targets whose J2000 catalog position has drifted required a widened labeling tolerance to recover.

3 Results

- **SS Cyg caught in an active (outburst) state.** 470 continuous G measurements place it ~ 1.4 mag above its Gaia-DR3 mean — caught in outburst/elevated activity, not quiescence. The night shows a smooth ~ 0.17 mag modulation on a timescale comparable to the 6.6 h orbital period, with rapid dwarf-nova flickering (~ 52 mmag, detrended) superimposed.
- **301 catalogued VSX variables measured** in 470 G frames; **120 unsaturated stars show statistically significant variation** (robust scatter $> 2.5\times$ measurement error).
- **Photometric precision floor ≈ 73 mmag** (ensemble stars); no flat-field calibration was available — the dominant systematic.
- **Database consistency: 206/297 unsaturated stars agree with their Gaia DR3 G magnitude to within ± 0.30 mag**; disagreements are flagged Δ in the table and are dominated by stars observed at a different phase of their variation cycle.
- Single-night monitoring; the flickering and its relative amplitude are robust, but absolute magnitudes (hence the outburst-state claim) rest on a Gaia-anchored zero point without flats and are preliminary. The blue band did not survive the sparse color sampling.

Finder chart (reference G frame)

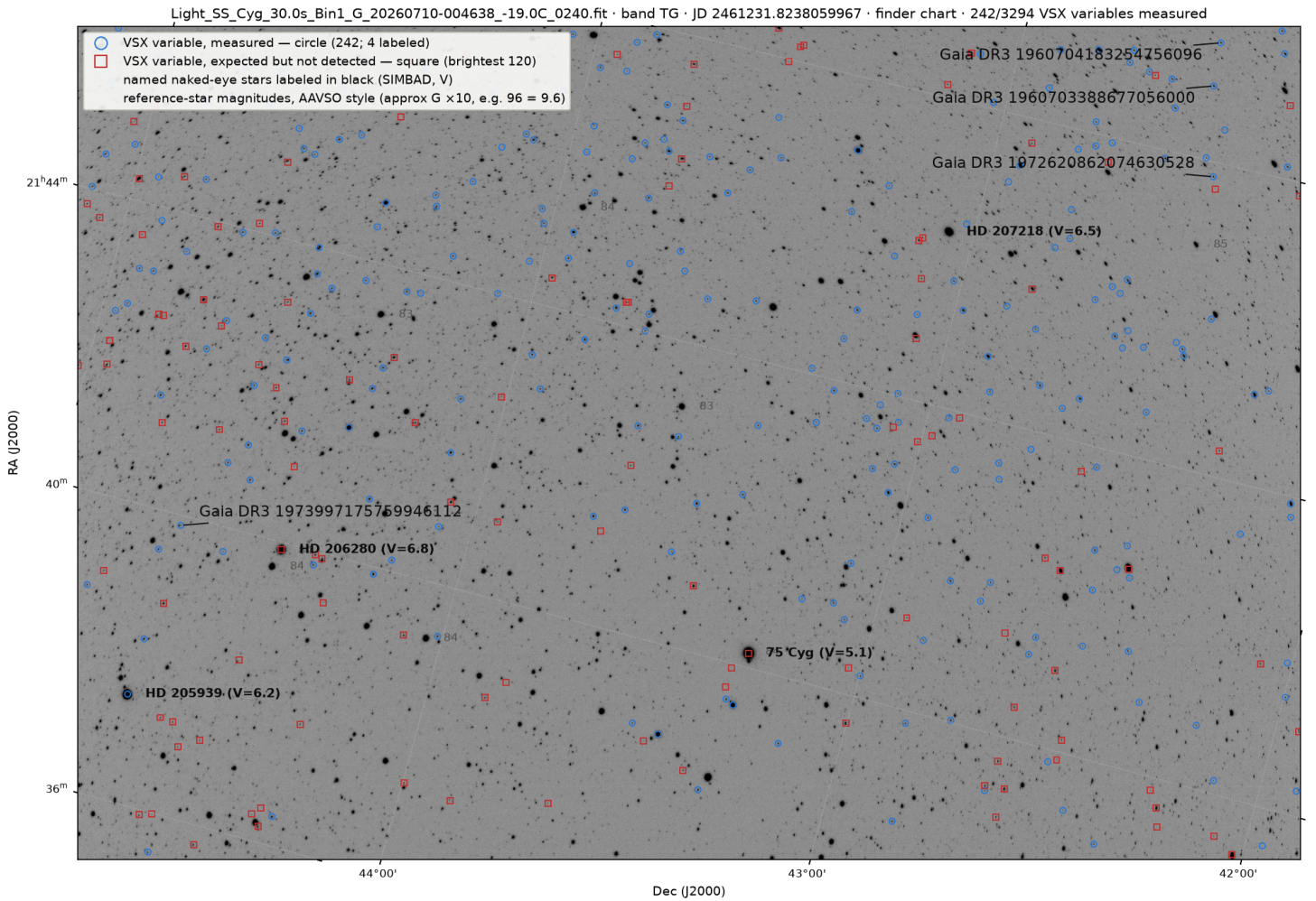


Figure 2. Reference G frame as a finder chart (dark stars on white, RA/Dec J2000 grid). Marker shape distinguishes categories in grayscale: open circles = VSX variables detected and measured (light-curve targets named); open squares = catalogued variables expected but not detected. Bright field stars carry AAVSO-style reference magnitudes (approx. G $\times 10$, decimal dropped; e.g. 96 = 9.6); naked-eye stars named in black for orientation.

Light curves — most significant unsaturated variables (G)

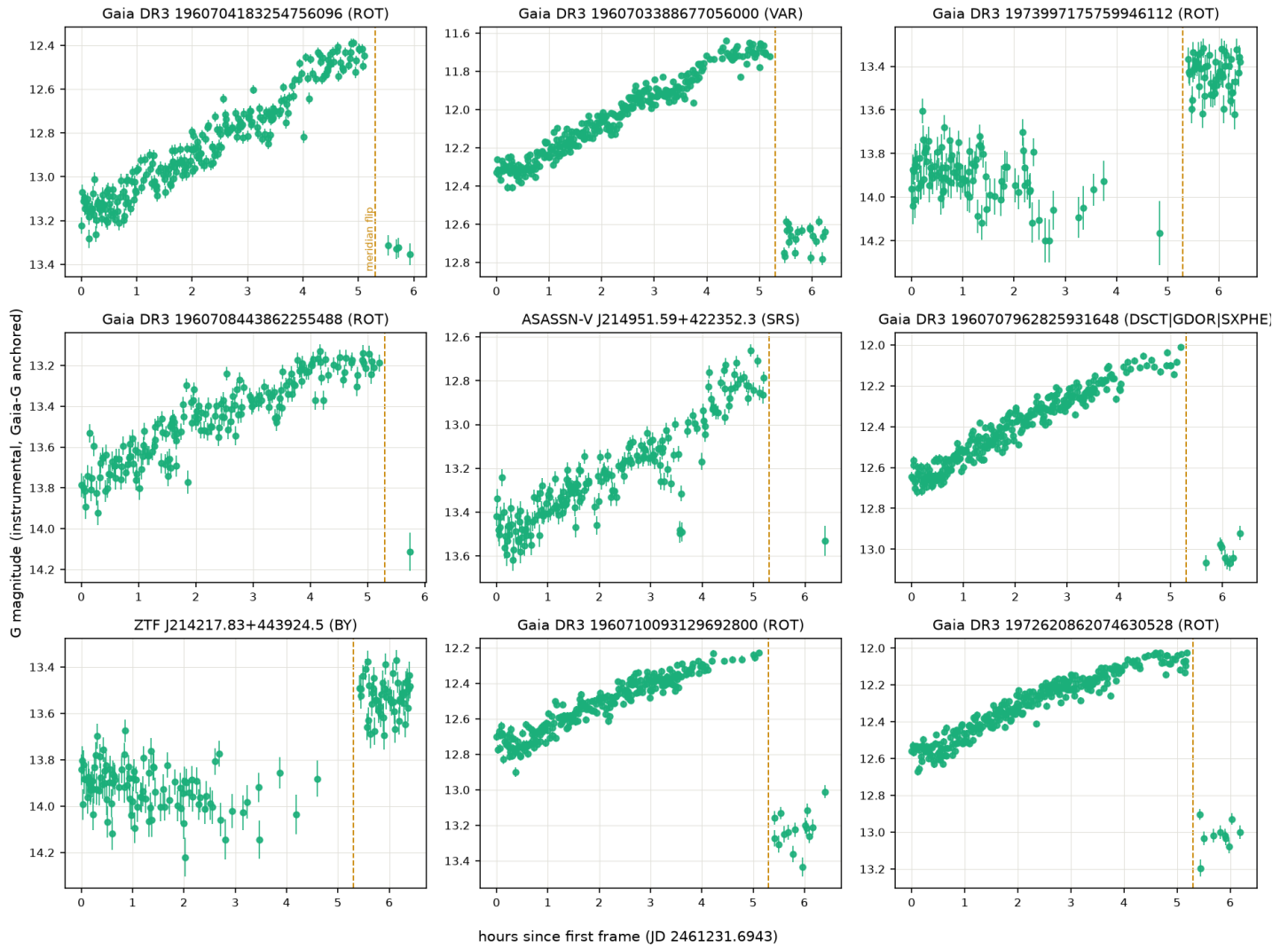


Figure 3. Ensemble differential light curves for the stars labeled on the annotated field: Gaia DR3 1960704183254756096, Gaia DR3 1960703388677056000, Gaia DR3 1973997175759946112, Gaia DR3 1960708443862255488, ASASSN-V J214951.59+422352.3, Gaia DR3 1960707962825931648, ZTF J214217.83+443924.5, Gaia DR3 1960710093129692800, Gaia DR3 1972620862074630528. A meridian flip mid-run (dashed line, where present) can introduce a small per-star magnitude step: the field rotates 180° onto different detector regions whose response is uncorrected without flats, so the per-frame ensemble removes the global shift but a position-dependent residual remains — the dominant systematic in this dataset.

Photometric precision (G)

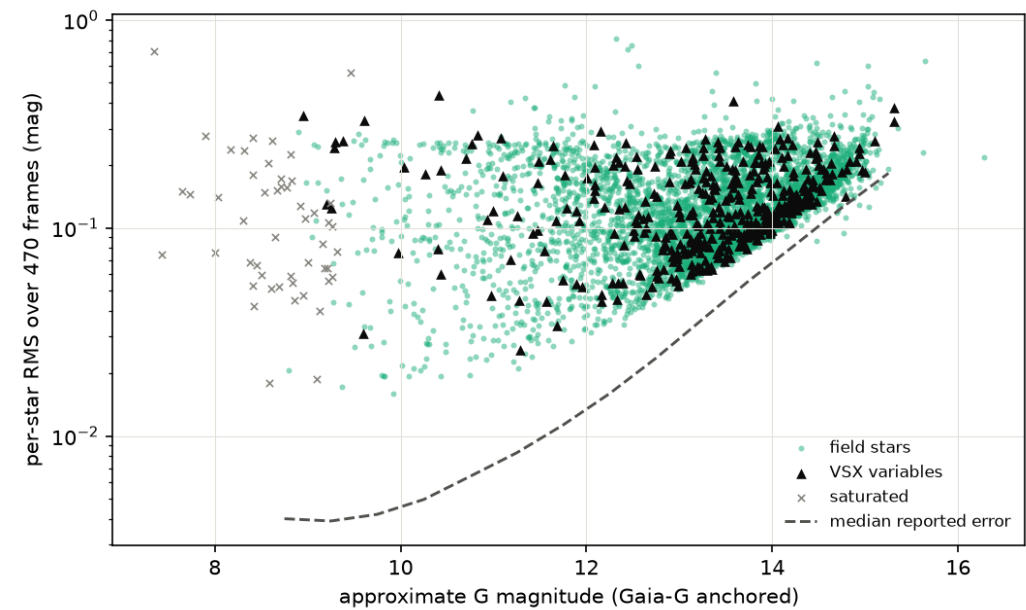


Figure 4. Repeat-measurement RMS vs magnitude for every measured star. The gap between the field-star cloud and the dashed reported-error line at the bright end is the flat-field systematics floor; triangles above the cloud are genuine variables.

Observing yield — measurements by category

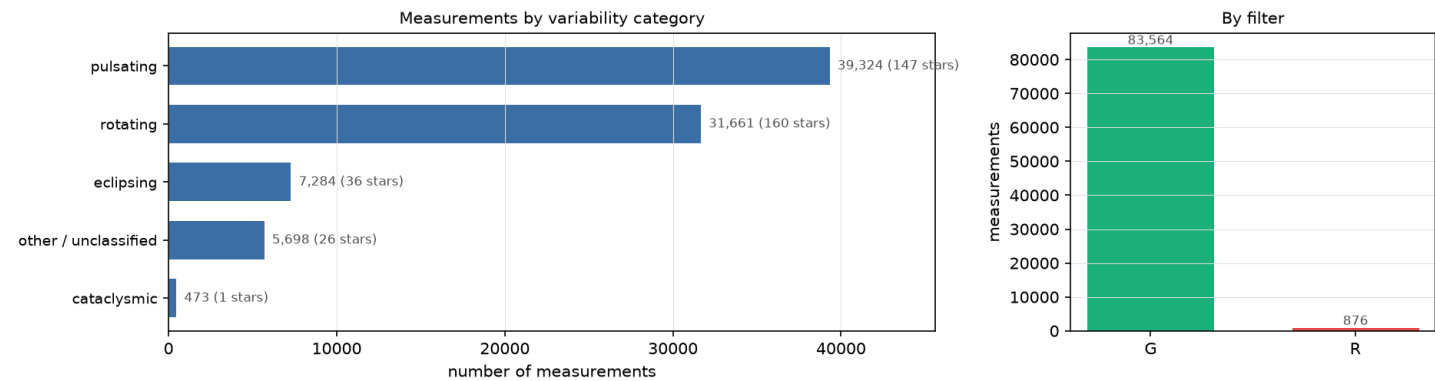


Figure 5. 84,440 ensemble-calibrated measurements across 370 variables. Left: measurements per variability class⁸ (with the number of distinct stars); right: measurements per filter. The raw scientific yield of the run.

Dwarf-nova in outburst (headline)

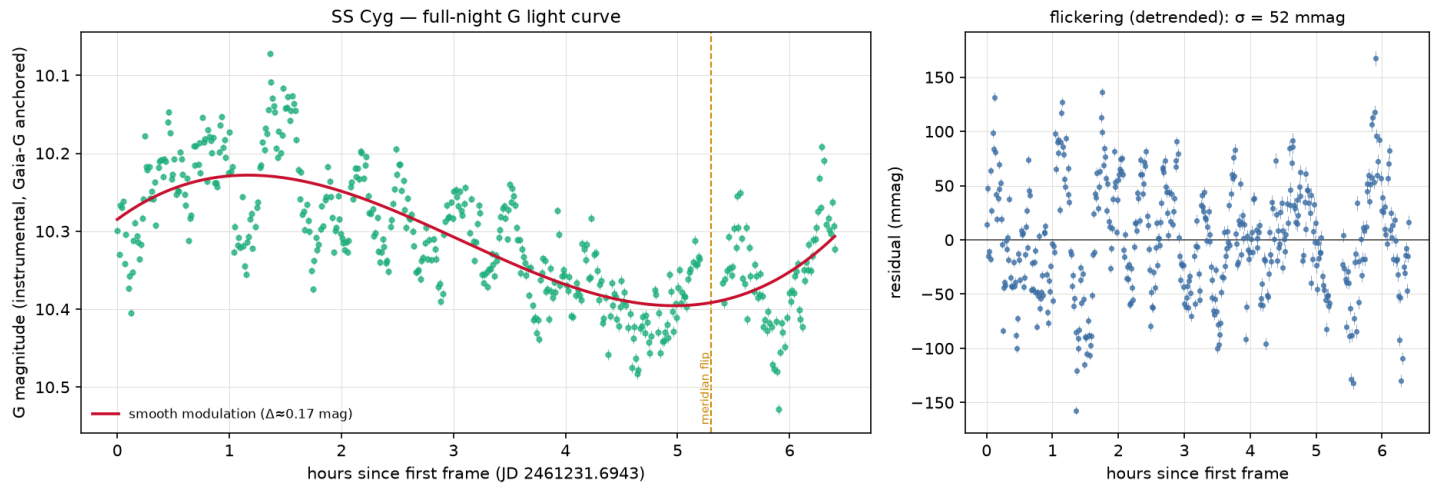


Figure 6. SS Cyg's full-night Green light curve (470 frames, left): the star sits ~ 1.4 mag above its Gaia-DR3 mean (an active/outburst state) and traces a smooth ~ 0.17 mag modulation across the night (red curve) on a timescale close to its 6.6 h orbital period — brightest early, faintest near transit, so not an airmass effect; the meridian flip is marked. Removing that modulation (right) leaves ~ 52 mmag of rapid, stochastic flickering — several times the per-point error, so intrinsic. Flickering is suppressed relative to quiescence, as expected for an outburst disk.

Planned vs. actual framing

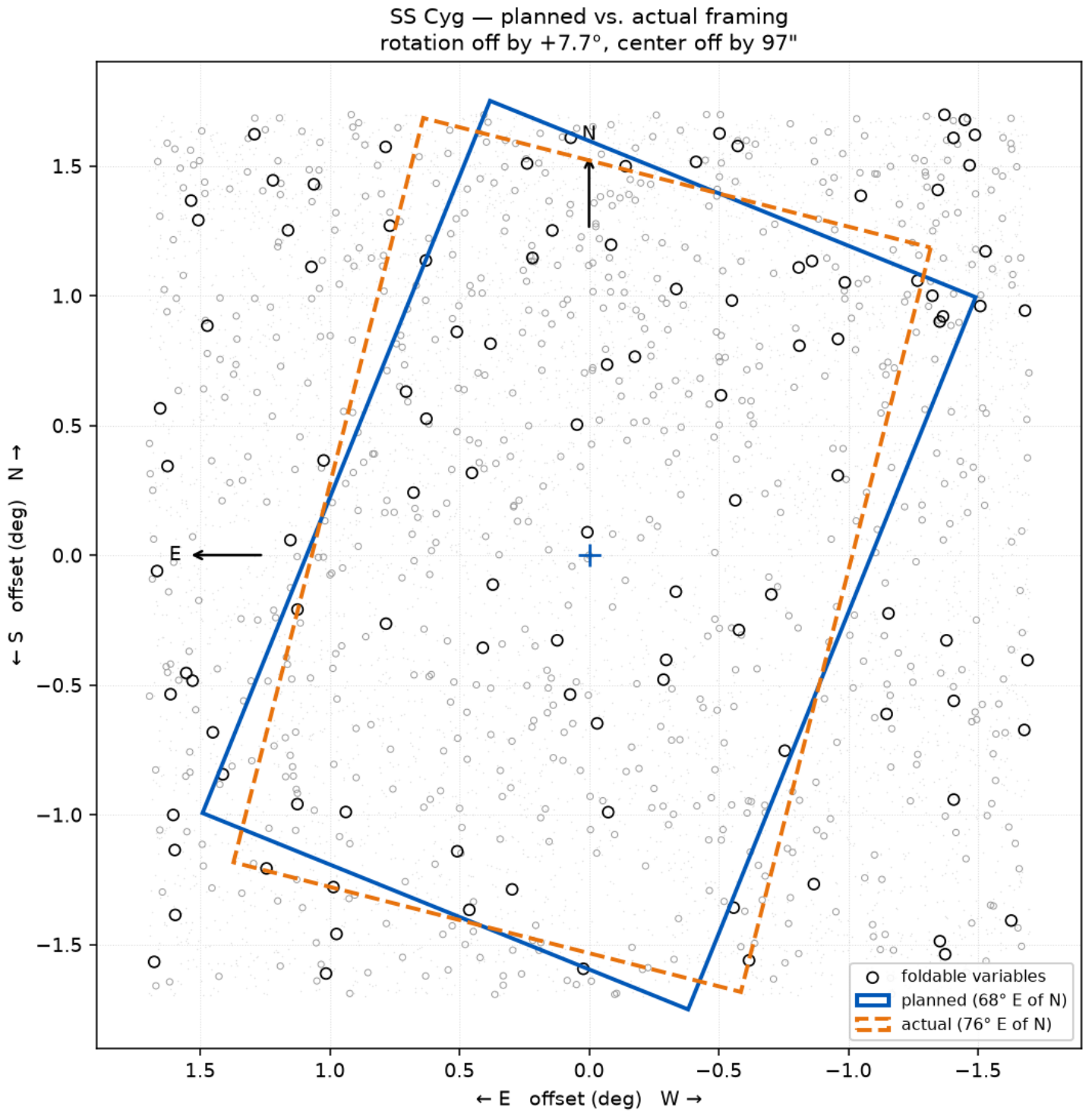


Figure 7. The intended field of view (solid, planned camera angle 68° E of N, centered on SS Cyg's catalog position) versus the achieved footprint recovered from the solved frames (dashed, 75.7°). The rotation landed $\sim 8^\circ$ from plan and the center $\sim 1.6'$ off — close enough that essentially all planned targets were captured, and the photometry is unaffected since every frame is independently plate-solved. Open circles mark the foldable field variables. (A meridian flip maps the rectangle onto itself, so the footprint is unambiguous.)

Phase-folded field variables (validation)

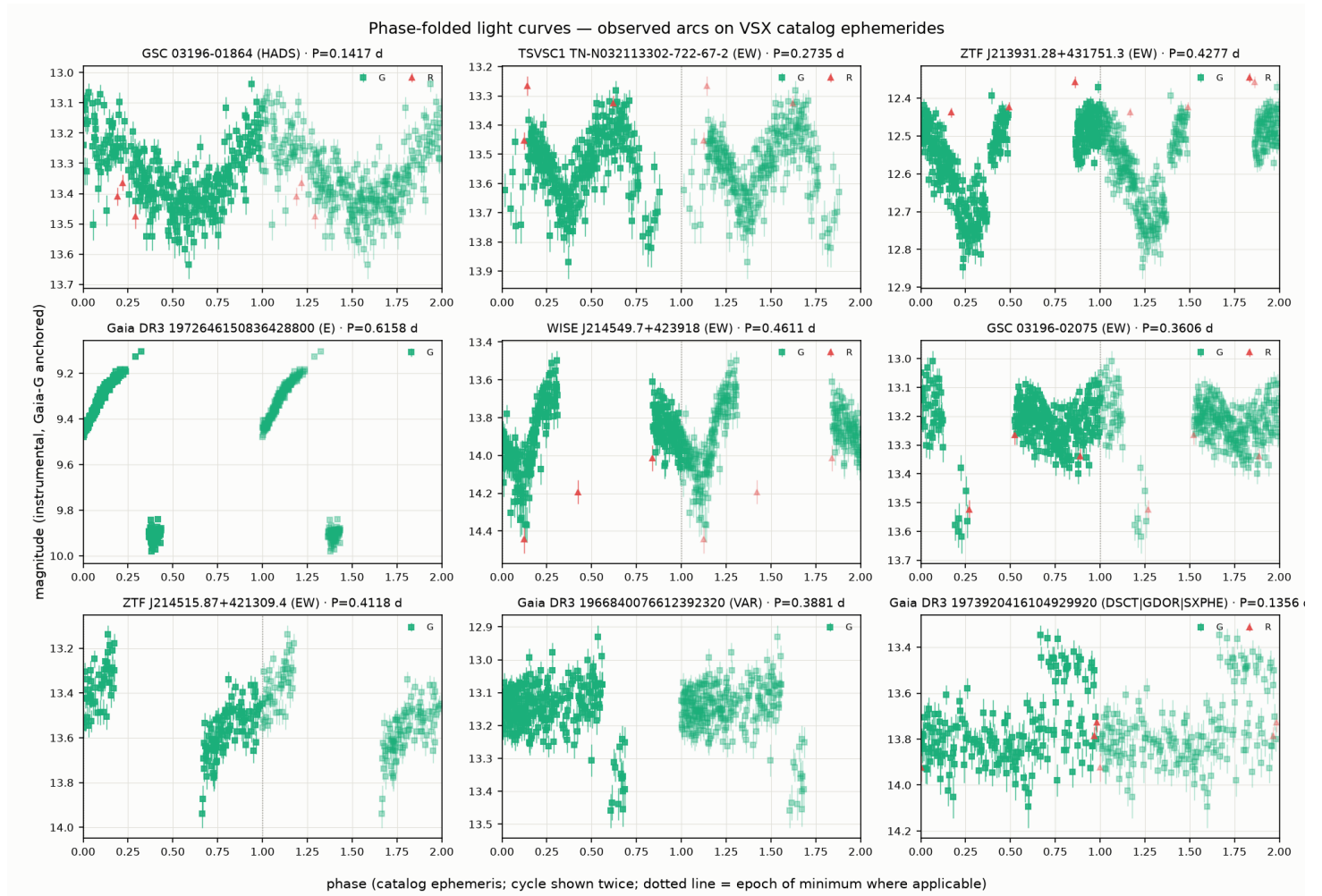


Figure 8. The field's periodic variables with the cleanest folds (ranked by fold coherence $\times$ phase coverage; the irregular target itself excluded), each observed arc laid on its VSX catalog ephemeris. Eclipsing binaries drop into their predicted minima and a high-amplitude δ Scuti closes a full cycle — independent, multi-type confirmation that the pipeline recovers brightness, time and identity correctly. Full statistics in `fold_summary.csv`.

4 Discussion

The orbital-scale modulation

The ~ 0.17 mag smooth modulation recurs on a timescale consistent with the 6.6 h orbital period, pointing to an orbital origin. In quiescent dwarf novae a once-per-orbit hump traces the changing aspect of the bright spot at the stream–disk impact, with secondary contributions from the tidally distorted, irradiated secondary². Its appearance here is notable: in outburst the luminous, optically-thick disk normally dilutes the bright-spot hump, so a modulation of this amplitude during an active state may instead trace large-scale disk asymmetry — a spiral or eccentric/precessing disk of the kind that produces superhumps — rather than the quiescent hot spot. The concurrent ~ 52 mmag flickering is the expected stochastic signature of unsteady accretion, suppressed relative to quiescence as the disk stabilizes; if it shares the bright-spot origin its amplitude may itself vary with orbital phase. A single night spans only $\sim$ one cycle, so the periodicity is provisional — multi-night coverage is needed to establish the period, separate an orbital hump from a superhump (expected a few percent longer than P_{orb}), and localise the modulating structure.

Assessment against observing objectives

Grading the run against the observing plan's stated objectives:

- **Resolve the flickering — MET.** 470 G measurements over 6.4 h resolve the dwarf-nova flickering: after removing the smooth modulation, rapid stochastic variations of ~ 52 mmag remain (consecutive points differ by 0.021 mag, $\sim 4\times$ the 0.005 mag per-point error). The flickering is suppressed relative to quiescence — expected, since the disk was in its optically-thick outburst state.
- **Catch an outburst — MET (the bonus paid off).** SS Cyg sits ~ 1.4 mag above its Gaia-DR3 mean — an active/outburst state, not quiescence — and shows a smooth ~ 0.17 mag modulation across the night on a timescale close to its 6.6 h orbit (brightest early, faintest near transit, so not an

airmass artifact). The opportunistic catch succeeded. (Absolute state rests on a Gaia-anchored zero point without flats — preliminary — but the ~ 1.4 mag offset far exceeds plausible zero-point error.)

- **Track color — NOT met.** The blue band dropped out — SS Cyg cleared the minimum-points floor only in R (3 R epochs, 0 B), so no B–R color was recovered (a blue-bright CV in outburst may also have saturated the few B frames). Lesson: three color epochs leave no margin — take several B/R per epoch next time.
- **Validate the pipeline — MET.** 120 field variables show significant variation and 113 were folded against catalog ephemerides (eclipsing binaries and δ Scuti pulsators) — diverse, independent confirmation that the framework measures and phases correctly, the clockwork counterpoint to the irregular headline target.

Caveats. Single-night monitoring; the flickering and its relative amplitude are robust, but absolute magnitudes (hence the outburst-state claim) rest on a Gaia-anchored zero point without flats and are preliminary. The blue band did not survive the sparse color sampling.

5 Conclusions

A 60 mm telescope caught SS Cygni in an outburst state and resolved both its orbital-scale modulation and its rapid flickering in a single night, while simultaneously delivering validated light curves for hundreds of field variables spanning several variability classes. The opportunistic “catch an outburst” objective succeeded; the color objective did not, for want of margin in the three-epoch B/R sampling. Folding this snapshot into a multi-night campaign would place it on the system’s outburst light curve, and flats plus denser color sampling would remove the two limiting systematics identified here — the meridian-flip step and the missing blue band.

References

1. Cannizzo, J. K. 1993, “The Limit Cycle Instability in Dwarf Nova Accretion Disks,” *ApJ*, 419, 318.
2. Warner, B. 1995, “Cataclysmic Variable Stars,” Cambridge Astrophysics Series 28 (dwarf-nova outbursts and flickering).
3. Bradley, L., et al. 2024, photutils: photometry and related tools for Python (Zenodo, doi:10.5281/zenodo.596036).
4. Gaia Collaboration, Vallenari, A., et al. 2023, “Gaia Data Release 3: Summary of the content and survey properties,” *A&A*, 674, A1.
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8. AAVSO variability-type documentation, vsx.aavso.org/index.php?view=about.vartypes (variability taxonomy).
9. Gaia Collaboration, Prusti, T., et al. 2016, “The Gaia mission,” *A&A*, 595, A1.

Acknowledgements. This work made use of the International Variable Star Index (VSX), operated at AAVSO, Cambridge, MA, USA, and of data from ESA’s Gaia mission⁹, processed by the Gaia DPAC. Observations were acquired at the Lowell Observatory, Flagstaff, AZ. Photometry was produced with the author’s varstar pipeline (vphot / solve_wcs / lightcurve / fold_analysis), developed with Claude (Anthropic).

Appendix A — Per-star measurements

Column definitions

COLUMN	TYPE	UNIT	DEFINITION
name	text	—	Primary VSX identifier (object.name in the varstar database, VSX release 2026-06-28).
vartype	text	—	Variability type as catalogued in VSX (GCVS-style; trailing colon = uncertain classification).
n	integer	frames	Number of G frames in which the star was detected within 2.5" of its catalog position with a valid flux measurement.
measured G	real	mag	Median of the ensemble-corrected instrumental G magnitudes over the series, zero point anchored to Gaia G (not transformed to a standard system).
Gaia G	real	mag	Gaia DR3 broadband G magnitude of the cross-matched source (catalog reference brightness).
Δ	real	mag	measured G – Gaia G. Nonzero values reflect the filter-bandpass difference, calibration systematics, and genuine variability phase.
db	flag	—	Database-consistency verdict: ✓ when $ \Delta \leq 0.30$ mag; Δ-flag when discrepant and worth review.
median_err	real	mag	Median propagated single-measurement uncertainty: $1.0857 \cdot \sigma_F / F$ (source photon noise + sky-annulus noise + aperture terms, gain-scaled).
robust_std	real	mag	Robust standard deviation across frames: $1.4826 \times$ median absolute deviation about the series median; the primary variability statistic.
range	real	mag	Peak-to-peak spread (max – min) over the series; outlier-sensitive by construction.
sig	flag	—	Significant variation: $\text{robust_std} > 2.5 \times \text{median_err}$ and > 0.008 mag during the observation window.
sat	flag	—	Saturated: stellar peak exceeded 90% of detector saturation in ≥ 1 frame; magnitudes unreliable.

Variability summary — one row per star (G band)

Sorted: valid (unsaturated) rows first, significant variation first, then by robust scatter.

NAME	VARTYPE	N	MEASURED G	GAIA G	Δ	DB	MEDIAN_ERR	ROBUST_STD	RANGE	SIG	SAT
Gaia DR3 1960704183254756096	ROT	250	12.88	12.92	-0.05	✓	0.0257	0.2520	0.966	✓	
Gaia DR3 1960703388677056000	VAR	312	12.07	12.25	-0.19	✓	0.0136	0.2490	1.142	✓	
Gaia DR3 1973997175759946112	ROT	150	13.82	13.62	+0.19	✓	0.0653	0.2468	0.883	✓	
Gaia DR3 1960708443862255488	ROT	184	13.45	13.65	-0.19	✓	0.0410	0.2371	0.983	✓	
ASASSN-V J214951.59+422352.3	SRS	196	13.26	11.44	+1.82	Δ	0.0367	0.2216	0.957	✓	
Gaia DR3 1960707962825931648	DSCT GDOR SXPHE	278	12.40	12.68	-0.28	✓	0.0171	0.2214	1.056	✓	
ZTF J214217.83+443924.5	BY	152	13.86	13.71	+0.14	✓	0.0588	0.2026	0.850	✓	
Gaia DR3 1960710093129692800	ROT	266	12.52	12.62	-0.10	✓	0.0191	0.2015	1.207	✓	
Gaia DR3 1972620862074630528	ROT	295	12.31	12.50	-0.19	✓	0.0162	0.2004	1.170	✓	
Gaia DR3 1972720848913164416	ACV roAm roAp SXARI	325	8.99	9.43	-0.44	Δ	0.0033	0.1987	3.289	✓	
Gaia DR3 1960613915919052928	DSCT GDOR SXPHE	275	12.31	12.68	-0.38	Δ	0.0159	0.1973	1.367	✓	
Gaia DR3 1972721707909497472	ROT	319	10.78				0.0060	0.1866	1.096	✓	
Gaia DR3 1972719646322339840	DSCT GDOR SXPHE	212	13.25	13.59	-0.34	Δ	0.0349	0.1852	1.108	✓	
ZTF J214151.88+445832.4	RS	146	13.72	13.83	-0.12	✓	0.0530	0.1743	0.909	✓	
WISE J214549.7+423918	EW	275	13.90	14.08	-0.18	✓	0.0613	0.1737	0.870	✓	
Gaia DR3 1972624190670779264	DSCT GDOR SXPHE	301	11.64	12.04	-0.40	Δ	0.0100	0.1634	1.124	✓	
Gaia DR3 1972724800275689984	ROT	310	9.41				0.0035	0.1576	0.863	✓	
Gaia DR3 1973815721981081856	DSCT GDOR SXPHE	183	13.64	13.61	+0.03	✓	0.0481	0.1527	0.761	✓	
ZTF J214515.87+421309.4	EW	145	13.51	13.60	-0.09	✓	0.0466	0.1444	0.802	✓	
Gaia DR3 1972598253365923712	DSCT GDOR SXPHE	366	9.57	9.97	-0.40	Δ	0.0046	0.1387	4.279	✓	
Gaia DR3 1973808364692049280	ROT	190	13.60	13.54	+0.05	✓	0.0457	0.1383	0.605	✓	
Gaia DR3 1972608423848599936	SR M	430	10.66	9.06	+1.60	Δ	0.0058	0.1376	0.876	✓	

NAME	VARTYPE	N	MEASURED G	GAIA G	Δ	DB	MEDIAN_ERR	ROBUST_STD	RANGE	SIG	SAT
Gaia DR3 1972722944857044608	E	226	13.36	13.76	-0.40	▲	0.0388	0.1372	0.626	✓	
Gaia DR3 1972646150836428800	E	280	9.36	11.67	-2.31	▲	0.0035	0.1353	0.874	✓	
Gaia DR3 1967993326874892544	ROT	266	12.90	12.65	+0.25	✓	0.0325	0.1327	1.715	✓	
Gaia DR3 1974008961149857280	DSCT GDOR SXPHE	280	12.40	12.25	+0.15	✓	0.0179	0.1272	1.233	✓	
Gaia DR3 1972606053026816256	DSCT GDOR SXPHE	325	12.90	13.23	-0.33	▲	0.0271	0.1252	1.108	✓	
Gaia DR3 1974014183830407040	ROT	197	13.46	13.22	+0.23	✓	0.0408	0.1232	1.008	✓	
Gaia DR3 1972634674689244800	VAR	330	12.40	12.71	-0.32	▲	0.0221	0.1227	1.140	✓	
Gaia DR3 1973837471695849344	DSCT GDOR SXPHE	187	13.59	13.68	-0.09	✓	0.0455	0.1222	0.776	✓	
Gaia DR3 1974007483680909824	ROT	185	13.34	13.18	+0.16	✓	0.0368	0.1214	1.014	✓	
ASASSN-V J214531.28+422641.8	EA	406	12.03	12.26	-0.24	✓	0.0134	0.1212	1.088	✓	
TSVSC1 TN-N032113302-722-67-2	EW	274	13.53	13.50	+0.03	✓	0.0432	0.1187	0.588	✓	
Gaia DR3 1967992326135504896	ROT	282	12.33	12.10	+0.23	✓	0.0172	0.1168	1.165	✓	
Gaia DR3 1968052352598418304	ROT	211	13.23	13.06	+0.17	✓	0.0335	0.1149	1.195	✓	
Gaia DR3 1973801290890134656	RS	228	13.19	12.88	+0.31	▲	0.0343	0.1141	0.911	✓	
Gaia DR3 1974007380601663104	DSCT GDOR SXPHE	191	13.32	13.31	+0.01	✓	0.0360	0.1125	1.064	✓	
ASASSN-V J214051.35+443641.4	DSCT	239	13.14	12.99	+0.15	✓	0.0329	0.1122	0.829	✓	
GSC 03196-01864	HADS	303	13.35	13.43	-0.08	✓	0.0386	0.1107	0.599	✓	
PMAK V17	SRS	275	13.11	11.28	+1.83	▲	0.0300	0.1088	0.724	✓	
Gaia DR3 1973761158714377472	DSCT GDOR SXPHE	226	13.39	13.50	-0.11	✓	0.0384	0.1060	0.720	✓	
Gaia DR3 1972658863947499264	L	436	11.43	11.42	+0.01	✓	0.0088	0.1059	0.931	✓	
Gaia DR3 1973787546994831104	DSCT GDOR SXPHE	375	12.01	11.98	+0.03	✓	0.0130	0.1053	0.710	✓	
ASASSN-V J214406.87+444100.7	SRS	277	13.49	12.56	+0.93	▲	0.0420	0.1050	0.628	✓	
ASASSN-V J214127.48+415947.2	SRS	192	12.96	11.85	+1.11	▲	0.0283	0.1037	1.611	✓	
Gaia DR3 1973822559569232896	DSCT GDOR SXPHE	215	13.33	13.33	-0.00	✓	0.0396	0.1033	0.822	✓	
Gaia DR3 1973815584542205312	DSCT GDOR SXPHE	235	13.21	13.17	+0.04	✓	0.0347	0.1017	0.770	✓	
Gaia DR3 1966648314913432320	ROT	236	13.00	13.17	-0.17	✓	0.0287	0.1011	0.771	✓	
ASASSN-V J213957.09+442059.2	SR	321	12.77	10.60	+2.17	▲	0.0228	0.1005	0.862	✓	
Gaia DR3 1974018130892038656	DSCT GDOR SXPHE	220	13.10	13.03	+0.07	✓	0.0308	0.1005	0.899	✓	
Gaia DR3 1973772806666477824	ROT	264	13.35	13.28	+0.08	✓	0.0371	0.1000	0.703	✓	
ZTF J213931.28+431751.3	EW	369	12.54	12.33	+0.21	✓	0.0203	0.0987	0.476	✓	
ASASSN-V J214048.49+421107.7	L	234	13.14	11.54	+1.60	▲	0.0313	0.0947	0.723	✓	
Gaia DR3 1972745038171824384	ROT	201	10.90	11.10	-0.20	✓	0.0061	0.0940	1.165	✓	
Gaia DR3 1973791154767214464	ROT	276	12.92	12.71	+0.21	✓	0.0269	0.0936	0.931	✓	
Gaia DR3 1973825063527186816	VAR	258	13.12	13.09	+0.03	✓	0.0312	0.0922	0.717	✓	
Gaia DR3 1967710919878952448	DSCT GDOR SXPHE	234	13.30	13.17	+0.13	✓	0.0356	0.0903	0.557	✓	
Gaia DR3 1973829014892090624	DSCT GDOR SXPHE	272	12.53	12.53	+0.00	✓	0.0200	0.0881	0.770	✓	
Gaia DR3 1972682430427309568	ROT	330	13.04	13.23	-0.19	✓	0.0292	0.0876	1.055	✓	
Gaia DR3 1973940997588409472	ROT	157	13.13	13.10	+0.03	✓	0.0314	0.0872	1.041	✓	
ASASSN-V J214052.29+441530.0	SRS	391	12.09	10.33	+1.76	▲	0.0138	0.0843	0.791	✓	
SS Cyg	UGSS	470	10.31				0.0049	0.0813	0.456	✓	
Gaia DR3 1973778957060114688	E	290	12.79	12.67	+0.12	✓	0.0239	0.0801	0.712	✓	
Gaia DR3 1973745731192006784	ROT	343	12.88	12.82	+0.05	✓	0.0268	0.0800	0.501	✓	
ASASSN-V J214838.91+430644.8	SR	243	11.13	10.90	+0.23	✓	0.0068	0.0793	0.877	✓	
Gaia DR3 1973765522401486208	DSCT GDOR SXPHE	372	12.63	12.69	-0.06	✓	0.0212	0.0789	0.598	✓	

NAME	VARTYPE	N	MEASURED G	GAIA G	Δ	DB	MEDIAN_ERR	ROBUST_STD	RANGE	SIG	SAT
ASASSN-V J214436.17+424521.5	SR	441	11.70	10.59	+1.11	▲	0.0105	0.0789	0.795	✓	
Gaia DR3 1966664807588194560	DSCT GDOR SXPHE	345	12.08	12.23	-0.15	✓	0.0134	0.0767	0.643	✓	
Gaia DR3 1967704911228099968	ROT	324	12.59	12.58	+0.01	✓	0.0207	0.0757	0.477	✓	
ASASSN-V J214106.86+440356.6	SRS	428	11.78	10.61	+1.16	▲	0.0111	0.0737	0.534	✓	
Gaia DR3 1973772359989886592	ROT	355	12.54	12.43	+0.12	✓	0.0217	0.0701	0.592	✓	
NSV 25768	LB:	365	12.38	11.07	+1.31	▲	0.0174	0.0695	0.597	✓	
ASASSN-V J214342.98+441753.3	SR	392	12.85	11.45	+1.40	▲	0.0270	0.0689	0.451	✓	
Gaia DR3 1973810602379940864	DSCT GDOR SXPHE	406	9.20	9.34	-0.14	✓	0.0044	0.0683	0.484	✓	
Gaia DR3 1972680682379923968	VAR	454	10.20	10.48	-0.28	✓	0.0048	0.0683	0.771	✓	
ZTF J214717.18+435834.1	BY	316	12.87	12.93	-0.06	✓	0.0263	0.0678	0.644	✓	
Gaia DR3 1973762876704281472	DSCT GDOR SXPHE	381	11.88	12.10	-0.22	✓	0.0121	0.0668	0.692	✓	
PMak V8	SR	450	11.65	10.40	+1.25	▲	0.0103	0.0657	0.463	✓	
Gaia DR3 1972662192541411840	ROT	336	12.37	12.59	-0.22	✓	0.0216	0.0649	0.576	✓	
Gaia DR3 1973765350602814592	DSCT GDOR SXPHE	421	11.45	11.52	-0.07	✓	0.0093	0.0617	0.485	✓	
GSC 03196-00641	RS:	423	11.90	11.60	+0.29	✓	0.0120	0.0615	0.540	✓	
Gaia DR3 1972701916699386112	DSCT GDOR SXPHE	449	11.03	12.16	-1.14	▲	0.0069	0.0610	0.761	✓	
Gaia DR3 1972816815663946624	L	215	10.10	8.34	+1.76	▲	0.0041	0.0598	0.599	✓	
Gaia DR3 1966862096906324480	RS	341	12.49	12.35	+0.14	✓	0.0187	0.0583	0.520	✓	
ASASSN-V J214318.97+435757.5	L	383	12.69	11.30	+1.39	▲	0.0229	0.0582	0.408	✓	
Gaia DR3 1973007237334027520	ROT	304	12.19	12.28	-0.09	✓	0.0147	0.0565	0.595	✓	
Gaia DR3 1972709918218032000	ROT	267	11.63	11.80	-0.18	✓	0.0096	0.0563	0.751	✓	
Gaia DR3 1967715665820165376	S	427	9.94	16.19	-6.25	▲	0.0046	0.0562	0.375	✓	
ASASSN-V J214811.76+433059.0	ROT	181	12.36	12.20	+0.16	✓	0.0159	0.0558	1.040	✓	
Gaia DR3 1972703321151759616	ROT	321	12.59	12.84	-0.25	✓	0.0202	0.0554	0.794	✓	
Gaia DR3 1973009470717039872	E	260	11.50	11.81	-0.31	▲	0.0087	0.0549	0.734	✓	
Gaia DR3 1972687588688499584	VAR	286	10.45	10.93	-0.48	▲	0.0058	0.0546	0.961	✓	
V2167 Cyg	SPB	186	9.31	9.38	-0.07	✓	0.0044	0.0544	0.696	✓	
Gaia DR3 1973711543251798784	ROT	413	12.24	12.09	+0.15	✓	0.0157	0.0508	0.369	✓	
Gaia DR3 1973704911813040128	S	421	11.87	17.39	-5.53	▲	0.0131	0.0505	0.355	✓	
V0654 Cyg	SR	255	12.52	11.18	+1.34	▲	0.0196	0.0495	0.509	✓	
NSVS J2143518+431408	L:	417	12.45	10.75	+1.71	▲	0.0183	0.0486	0.657	✓	
Gaia DR3 1966913911391779712	E	326	12.36	12.35	+0.01	✓	0.0169	0.0469	0.324	✓	
Gaia DR3 1972985281458624128	RS	431	12.08	11.77	+0.31	▲	0.0141	0.0468	0.236	✓	
Gaia DR3 1966871786352537600	DSCT GDOR SXPHE	388	12.25	12.46	-0.21	✓	0.0161	0.0460	0.467	✓	
Gaia DR3 1972952089954410752	DSCT GDOR SXPHE	433	11.46	11.63	-0.16	✓	0.0094	0.0459	0.239	✓	
Gaia DR3 1972897075711560192	DSCT GDOR SXPHE	392	12.03	12.23	-0.20	✓	0.0133	0.0457	0.713	✓	
ASASSN-V J214101.19+423250.5	SR	297	11.42	10.34	+1.08	▲	0.0091	0.0454	0.451	✓	
Gaia DR3 1972992668806793216	DSCT GDOR SXPHE	425	12.25	12.33	-0.08	✓	0.0160	0.0419	0.284	✓	
GSC 03196-00831	DSCT	424	12.10	12.11	-0.01	✓	0.0144	0.0418	0.289	✓	
Gaia DR3 1966853786148791680	DSCT GDOR SXPHE	323	9.29	9.71	-0.42	▲	0.0037	0.0414	3.635	✓	
Gaia DR3 1966826985551804288	DSCT GDOR SXPHE	193	10.47	10.79	-0.32	▲	0.0048	0.0414	6.114	✓	
Vend14	SRB	381	12.23	9.30	+2.92	▲	0.0160	0.0401	0.316	✓	
Gaia DR3 1973019057074790912	DSCT GDOR SXPHE	356	10.96	11.18	-0.23	✓	0.0064	0.0394	0.569	✓	
Gaia DR3 1972978134637287168	VAR	439	11.82	12.03	-0.21	✓	0.0132	0.0390	0.333	✓	

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ZTF J214607.59+440527.8	SR	372	11.71	10.92	+0.79	▲	0.0106	0.0362	0.345	✓	
ASASSN-V J214338.76+443107.7	SR	378	11.52	10.27	+1.24	▲	0.0099	0.0339	0.418	✓	
PMAK V30	SRS	459	11.59	9.96	+1.64	▲	0.0099	0.0336	0.212	✓	
ASASSN-V J213920.74+423532.0	SR	270	11.29	10.22	+1.07	▲	0.0078	0.0297	0.258	✓	
Gaia DR3 1973882787885122688	VAR	156	11.31	11.42	-0.12	✓	0.0090	0.0282	1.101	✓	
Gaia DR3 1966933191505330176	ROT	365	11.24	11.35	-0.11	✓	0.0079	0.0262	0.183	✓	
Gaia DR3 1972879522185619968	DSCT GDOR SXPHE	447	10.85	11.07	-0.22	✓	0.0064	0.0257	0.474	✓	
ASASSN-V J214503.15+435634.0	SR	448	10.90	10.54	+0.36	▲	0.0065	0.0248	0.270	✓	
Gaia DR3 1973861935827824384	L	412	10.39	8.61	+1.78	▲	0.0056	0.0215	0.355	✓	
Gaia DR3 1973847126780968064	DSCT GDOR SXPHE	418	9.53	9.69	-0.17	✓	0.0045	0.0184	0.188	✓	
ASASSN-V J214547.71+431026.4	CWB	193	14.33	14.31	+0.02	✓	0.0902	0.1661	0.835		
ASASSN-V J214609.54+443138.0	ROT	153	14.20	14.01	+0.19	✓	0.0812	0.1521	0.864		
ASASSN-V J214703.83+434459.6	L	173	14.25	12.15	+2.10	▲	0.0817	0.1388	0.729		
Gaia DR3 1966595057317996288	RS	153	13.87	13.81	+0.07	✓	0.0655	0.1368	0.757		
Gaia DR3 1972667797477917440	ROT	259	14.21	14.17	+0.05	✓	0.1062	0.1327	0.821		
Gaia DR3 1972794035157184000	E	205	13.66	13.86	-0.20	✓	0.0593	0.1320	0.608		
Gaia DR3 1972686557895812864	ROT	162	14.31	14.36	-0.05	✓	0.0906	0.1286	0.844		
Gaia DR3 1972698515084917376	ROT	179	14.19	14.33	-0.13	✓	0.0823	0.1274	0.832		
Gaia DR3 1972717275502142464	ROT	155	14.37	14.51	-0.14	✓	0.0926	0.1268	0.832		
ASASSN-V J214611.05+444723.1	EA	194	13.86	14.63	-0.77	▲	0.0594	0.1257	0.749		
ASASSN-V J214020.74+430151.7	L	149	14.16	13.28	+0.88	▲	0.0778	0.1257	0.734		
Gaia DR3 1973000468465317248	DSCT GDOR SXPHE	174	14.19	14.46	-0.27	✓	0.0769	0.1254	0.660		
Gaia DR3 1972813276610753152	ROT	184	14.23	14.32	-0.10	✓	0.0815	0.1249	0.650		
Gaia DR3 1972791217658807808	E	168	14.19	14.48	-0.29	✓	0.0887	0.1239	0.870		
Gaia DR3 1973859736805242752	ROT	149	14.16	14.18	-0.01	✓	0.0761	0.1222	0.681		
Gaia DR3 1973869426250962688	ROT	205	13.76	13.74	+0.03	✓	0.0545	0.1209	0.922		
Gaia DR3 1973083412875579904	ROT	156	14.15	14.13	+0.02	✓	0.0759	0.1205	0.731		
Gaia DR3 1973765522401491968	DSCT GDOR SXPHE	144	13.85	13.94	-0.09	✓	0.0586	0.1179	0.738		
Gaia DR3 1966846020847506048	DSCT GDOR SXPHE	216	13.80	14.03	-0.23	✓	0.0571	0.1176	0.679		
Gaia DR3 1972688619479895424	ROT	277	14.03	13.92	+0.11	✓	0.0711	0.1168	0.645		
Gaia DR3 1973869391891225856	DSCT GDOR SXPHE	155	13.96	13.97	-0.01	✓	0.0911	0.1165	1.242		
ASASSN-V J214101.17+435638.9	L	213	13.59	10.72	+2.86	▲	0.0485	0.1157	0.615		
Gaia DR3 1973769675632910848	ROT	264	13.42	12.98	+0.44	▲	0.0551	0.1153	0.716		
Gaia DR3 1973015857327251072	RS	211	14.06	13.34	+0.72	▲	0.0706	0.1151	1.001		
ASASSN-V J214336.04+425843.3	SRS	252	14.13	13.03	+1.10	▲	0.0772	0.1149	0.568		
Gaia DR3 1973801050371974528	ROT	229	13.22	13.14	+0.08	✓	0.0478	0.1119	0.695		
Gaia DR3 1973920416104929920	DSCT GDOR SXPHE	179	13.80	13.83	-0.03	✓	0.0542	0.1115	0.746		
Gaia DR3 1973027440860300928	DSCT GDOR SXPHE	158	14.17	14.47	-0.30	▲	0.0759	0.1105	0.547		
Gaia DR3 1966915530599896960	E	162	14.15	14.12	+0.04	✓	0.0757	0.1103	0.620		
Gaia DR3 1966663261399819008	ROT	198	14.22	14.35	-0.13	✓	0.0911	0.1102	0.728		
NSVS 5925047	L	164	14.05	11.19	+2.86	▲	0.0684	0.1100	0.521		
Gaia DR3 1972670614976243968	ROT	256	13.80	14.17	-0.37	▲	0.0556	0.1093	0.747		
Gaia DR3 1973762223866340864	ROT	174	13.66	13.55	+0.12	✓	0.0484	0.1087	0.686		
Gaia DR3 1973723363001591808	ROT	147	13.77	13.60	+0.17	✓	0.0546	0.1086	0.679		

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Gaia DR3 1973909386627817728	VAR	146	13.59	13.76	-0.17	✓	0.0489	0.1084	1.056		
ASASSN-V J214353.44+425657.2	L	282	14.00	13.32	+0.68	Δ	0.0740	0.1079	0.725		
Gaia DR3 1972635568042431744	VAR	242	13.91	13.36	+0.55	Δ	0.0648	0.1077	0.701		
Gaia DR3 1973090731499637632	VAR	191	13.94	13.91	+0.04	✓	0.0629	0.1074	0.595		
Gaia DR3 1972790839701689600	ROT	194	13.67	13.88	-0.21	✓	0.0492	0.1070	0.783		
Gaia DR3 1966663639357106560	ROT	247	13.90	14.11	-0.21	✓	0.0616	0.1057	0.665		
Gaia DR3 1973023248971903104	DSCT GDOR SXPHE	179	14.08	14.27	-0.19	✓	0.0713	0.1046	0.697		
Gaia DR3 1972925942193079680	ROT	184	13.99	13.95	+0.04	✓	0.0645	0.1037	0.588		
ZTF J214104.25+431056.7	EW	171	13.98	13.97	+0.01	✓	0.0669	0.1034	0.641		
Gaia DR3 1966840729447408896	ROT	219	13.84	13.88	-0.05	✓	0.0586	0.1033	0.509		
Gaia DR3 1973019263242285184	ROT	173	14.19	14.21	-0.01	✓	0.0780	0.1032	0.673		
Gaia DR3 1972706280385338752	VAR	309	13.71	13.93	-0.22	✓	0.0519	0.1023	0.543		
Gaia DR3 1972820595235135360	DSCT GDOR SXPHE	208	13.97	14.12	-0.15	✓	0.0650	0.1014	0.551		
Gaia DR3 1966891616221352320	E	173	14.04	13.90	+0.14	✓	0.0679	0.1010	0.637		
UCAC4 673-106048	SR	214	13.90	11.82	+2.09	Δ	0.0625	0.1007	0.563		
Gaia DR3 1973015140073976576	ROT	245	13.89	14.00	-0.11	✓	0.0614	0.1004	1.026		
ZTF J214758.94+431410.3	RS	197	13.86	13.84	+0.03	✓	0.0586	0.0996	1.232		
Gaia DR3 1966932195072934144	ROT	174	14.04	13.91	+0.14	✓	0.0722	0.0994	0.497		
ZTF J214422.93+424123.0	SR	346	13.58	12.61	+0.97	Δ	0.0466	0.0989	0.812		
Gaia DR3 1973110213471932160	ROT	202	14.03	13.91	+0.11	✓	0.0737	0.0982	0.562		
WISE J213935.8+434749	EW	173	13.54	13.38	+0.16	✓	0.0444	0.0981	0.681		
Gaia DR3 1973030017840497152	DSCT GDOR SXPHE	194	14.17	14.27	-0.09	✓	0.0822	0.0976	0.694		
ZTF J214611.70+443404.5	BY	243	13.81	13.49	+0.32	Δ	0.0577	0.0971	0.613		
Gaia DR3 1972922987255619328	DSCT GDOR SXPHE	166	13.53	14.19	-0.66	Δ	0.0504	0.0969	0.549		
Gaia DR3 1972813792006826752	ROT	223	13.67	14.06	-0.38	Δ	0.0500	0.0968	0.447		
Gaia DR3 1967995972574904960	ROT	145	13.51	13.41	+0.10	✓	0.0423	0.0965	0.958		
Gaia DR3 1966840660727935872	ROT	221	13.94	14.06	-0.12	✓	0.0626	0.0954	0.535		
Gaia DR3 1973883822982365184	ROT	272	13.73	13.68	+0.05	✓	0.0550	0.0954	0.619		
Gaia DR3 1973122101941398272	RS	249	13.77	13.37	+0.39	Δ	0.0552	0.0949	0.518		
Gaia DR3 1972899107237138944	RS	249	13.93	14.11	-0.18	✓	0.0615	0.0947	0.568		
Gaia DR3 1973857228544209280	DSCT GDOR SXPHE	234	13.80	13.97	-0.16	✓	0.0612	0.0944	0.549		
Gaia DR3 1973926325980549504	DSCT GDOR SXPHE	223	13.64	13.72	-0.08	✓	0.0486	0.0941	0.724		
Gaia DR3 1973867639544632448	DSCT GDOR SXPHE	277	13.52	13.56	-0.04	✓	0.0458	0.0940	0.728		
ASASSN-V J214210.10+423032.9	ROT	291	13.81	13.48	+0.33	Δ	0.0593	0.0935	0.576		
ZTF J213741.38+441635.2	SR	191	13.40	11.62	+1.78	Δ	0.0386	0.0934	0.897		
Gaia DR3 1973930483508832128	DSCT GDOR SXPHE	209	13.39	13.55	-0.16	✓	0.0442	0.0931	0.746		
Gaia DR3 1973820394905752192	ROT	241	13.40	13.31	+0.09	✓	0.0396	0.0930	0.764		
Gaia DR3 1973027921896623616	ROT	279	13.57	13.62	-0.05	✓	0.0510	0.0930	0.704		
Gaia DR3 1967705460983906560	E	235	13.44	13.08	+0.36	Δ	0.0413	0.0930	0.982		
ASASSN-V J214532.55+445255.7	SR	260	13.69	11.25	+2.44	Δ	0.0515	0.0929	0.787		
Gaia DR3 1966845024415249280	DSCT GDOR SXPHE	251	13.34	13.77	-0.43	Δ	0.0408	0.0928	0.886		
Gaia DR3 1973856988026031616	DSCT GDOR SXPHE	211	13.84	13.87	-0.03	✓	0.0574	0.0925	0.656		
Gaia DR3 1966912094625931264	ROT	230	13.74	13.76	-0.03	✓	0.0673	0.0924	0.545		
Gaia DR3 1967970340210030592	ROT	170	13.34	13.18	+0.16	✓	0.0382	0.0924	0.982		

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Gaia DR3 1972667900556958336	ROT	317	13.63	13.78	-0.15	✓	0.0502	0.0919	0.521		
V0638 Cyg	L	167	13.26	10.50	+2.76	Δ	0.0375	0.0919	1.509		
Gaia DR3 1966921749712900352	SR M	266	13.70	11.96	+1.74	Δ	0.0518	0.0906	0.414		
Gaia DR3 1972866431125351680	ROT	254	13.94	13.79	+0.15	✓	0.0627	0.0904	0.598		
Gaia DR3 1972860040213873536	ROT	295	13.84	13.85	-0.01	✓	0.0580	0.0896	0.590		
ASASSN-V J214419.27+434619.3	L	217	13.79	13.13	+0.66	Δ	0.0608	0.0895	0.567		
Gaia DR3 1966921852791943296	DSCT GDOR SXPHE	250	13.76	13.89	-0.13	✓	0.0542	0.0890	0.652		
Gaia DR3 1972665220497261952	ROT	316	13.55	13.68	-0.13	✓	0.0485	0.0889	0.821		
Gaia DR3 1967772118877925632	DSCT GDOR SXPHE	180	13.37	13.27	+0.09	✓	0.0406	0.0884	0.676		
ZTF J214314.67+425411.6	SR	295	13.71	13.68	+0.03	✓	0.0531	0.0882	0.773		
NSVS J2148047+430152	SR	206	13.49	11.55	+1.94	Δ	0.0419	0.0867	0.469		
Gaia DR3 1972886978249045760	ROT	281	13.66	13.73	-0.07	✓	0.0494	0.0863	0.449		
Gaia DR3 1966921165597184256	DSCT GDOR SXPHE	270	13.68	13.83	-0.15	✓	0.0531	0.0860	0.647		
Gaia DR3 1972716485227976448	ROT	254	13.64	13.78	-0.14	✓	0.0522	0.0852	0.560		
Gaia DR3 1972980024423103616	ROT	233	13.68	13.64	+0.05	✓	0.0495	0.0847	0.407		
ZTF J214402.16+430500.8	RS	297	13.66	13.55	+0.11	✓	0.0499	0.0844	0.684		
Gaia DR3 1972912129577951104	ROT	248	13.83	13.88	-0.04	✓	0.0558	0.0832	0.525		
ASASSN-V J214323.52+431528.0	EA	228	13.87	13.91	-0.05	✓	0.0603	0.0825	0.568		
Gaia DR3 1966821694152259328	ROT	235	13.26	13.46	-0.20	✓	0.0349	0.0815	2.453		
Gaia DR3 1966832757987788672	ROT	224	13.54	13.63	-0.09	✓	0.0449	0.0810	0.557		
ASASSN-V J214328.55+424819.2	L	332	13.43	11.65	+1.78	Δ	0.0404	0.0806	0.592		
GSC 03192-01123	SRB	354	13.22	11.86	+1.35	Δ	0.0369	0.0800	0.556		
Gaia DR3 1972957690592232960	DSCT GDOR SXPHE	226	13.45	13.68	-0.22	✓	0.0462	0.0791	0.418		
Gaia DR3 1973070184376040320	ROT	259	13.69	13.71	-0.03	✓	0.0616	0.0789	0.446		
Gaia DR3 1973081763608151424	ROT	256	13.67	13.66	+0.01	✓	0.0511	0.0789	0.507		
Gaia DR3 1973086294789681024	DSCT GDOR SXPHE	314	13.37	13.63	-0.26	✓	0.0389	0.0782	0.477		
Gaia DR3 1972644329775822976	ROT	230	13.27	13.48	-0.21	✓	0.0347	0.0775	0.449		
ZTF J214343.44+442403.1	BY	309	13.32	13.38	-0.06	✓	0.0372	0.0774	0.473		
ASASSN-V J214518.35+445948.2	L	253	13.30	12.29	+1.01	Δ	0.0388	0.0767	0.582		
Gaia DR3 1972909483878609920	ROT	279	13.51	13.64	-0.13	✓	0.0430	0.0767	0.448		
Gaia DR3 1972709372762209792	DSCT GDOR SXPHE	246	13.47	13.72	-0.25	✓	0.0425	0.0763	0.505		
Gaia DR3 1973862038907038464	DSCT GDOR SXPHE	322	13.12	13.20	-0.08	✓	0.0331	0.0762	0.582		
Gaia DR3 1973824243196605696	DSCT GDOR SXPHE	243	13.26	13.18	+0.08	✓	0.0360	0.0759	0.774		
Gaia DR3 1972645601086289152	ROT	208	13.15	13.32	-0.18	✓	0.0314	0.0759	0.891		
Gaia DR3 1966854404624080000	ROT	329	13.49	13.57	-0.08	✓	0.0432	0.0757	0.851		
Gaia DR3 1972788159643673728	S	206	13.45	17.82	-4.37	Δ	0.0403	0.0753	0.965		
ZTF J214421.38+425209.0	BY	358	13.37	13.52	-0.14	✓	0.0411	0.0747	0.433		
Gaia DR3 1973127943096873344	DSCT GDOR SXPHE	285	13.51	13.83	-0.33	Δ	0.0465	0.0744	0.476		
Gaia DR3 1973053176304682112	DSCT GDOR SXPHE	148	13.25	13.47	-0.22	✓	0.0341	0.0743	0.726		
ASASSN-V J213832.64+424957.2	EA	276	13.21	13.12	+0.09	✓	0.0376	0.0736	0.427		
Gaia DR3 1973074960379608832	DSCT GDOR SXPHE	326	13.40	13.44	-0.04	✓	0.0424	0.0728	0.408		
Gaia DR3 1972925289358061696	ROT	302	13.30	13.39	-0.09	✓	0.0361	0.0722	0.567		
2MASS J21461073+4406418	EA	291	13.40	13.43	-0.03	✓	0.0394	0.0721	0.492		
GSC 03196-02075	EW	292	13.22	13.36	-0.14	✓	0.0340	0.0715	0.609		

NAME	VARTYPE	N	MEASURED G	GAIA G	Δ	DB	MEDIAN_ERR	ROBUST_STD	RANGE	SIG	SAT
Gaia DR3 1966927865746272128	DSCT GDOR SXPHE	358	12.99	13.02	-0.02	✓	0.0310	0.0711	0.552		
Gaia DR3 1973011875898843136	ROT	272	13.20	13.00	+0.20	✓	0.0349	0.0689	0.744		
Gaia DR3 1973899800260631040	RS	277	13.17	12.80	+0.37	⚠	0.0333	0.0689	0.495		
Gaia DR3 1973076197330193152	ROT	316	13.42	13.39	+0.02	✓	0.0398	0.0686	0.581		
Gaia DR3 1973875812858236928	VAR	262	13.18	13.27	-0.08	✓	0.0330	0.0685	0.588		
Gaia DR3 1972707036299785728	ROT	306	13.15	13.25	-0.11	✓	0.0320	0.0685	0.892		
Gaia DR3 1972743182743142400	RS	180	13.14	12.96	+0.18	✓	0.0307	0.0684	0.892		
Gaia DR3 1972997788407747328	ROT	307	13.27	13.27	+0.00	✓	0.0353	0.0684	0.406		
Gaia DR3 1973003801359937280	DSCT GDOR SXPHE	266	13.18	13.45	-0.27	✓	0.0326	0.0674	0.499		
Gaia DR3 1966854503404144256	ROT	320	13.14	13.33	-0.19	✓	0.0343	0.0667	0.656		
Gaia DR3 1972977310003579264	VAR	318	13.15	13.27	-0.12	✓	0.0338	0.0659	0.524		
Gaia DR3 1972872577218086784	E	342	13.31	13.38	-0.07	✓	0.0366	0.0653	0.365		
Gaia DR3 1973869185732804992	DSCT GDOR SXPHE	305	12.97	13.03	-0.06	✓	0.0280	0.0653	0.599		
Gaia DR3 1972709922517822080	ROT	265	13.11	13.35	-0.25	✓	0.0311	0.0648	0.831		
Gaia DR3 1972999506392656896	ROT	256	13.47	13.58	-0.11	✓	0.0441	0.0645	0.412		
Gaia DR3 1972961848120401536	ROT	238	13.33	13.34	-0.02	✓	0.0363	0.0644	0.326		
Gaia DR3 1973125503555614976	DSCT GDOR SXPHE	170	12.86	13.07	-0.21	✓	0.0301	0.0626	0.640		
Gaia DR3 1973075303976995712	DSCT GDOR SXPHE	327	13.25	13.45	-0.20	✓	0.0344	0.0623	0.397		
Gaia DR3 1973052729628034304	DSCT GDOR SXPHE	273	13.20	13.55	-0.36	⚠	0.0338	0.0623	0.672		
Gaia DR3 1973093926955280768	DSCT GDOR SXPHE	288	13.47	13.55	-0.09	✓	0.0435	0.0616	0.447		
ASASSN-V J214232.46+425615.6	EA	365	13.00	13.07	-0.07	✓	0.0285	0.0604	0.705		
ASASSN-V J214420.43+441239.8	SRS	404	12.88	11.70	+1.18	⚠	0.0263	0.0596	0.345		
Gaia DR3 1972899485194263936	ROT	341	13.20	13.29	-0.09	✓	0.0336	0.0596	0.338		
Gaia DR3 1966840076612392320	VAR	257	13.14	13.30	-0.16	✓	0.0322	0.0596	0.528		
Gaia DR3 1972942842883059328	ROT	392	12.79	12.44	+0.36	⚠	0.0247	0.0593	0.362		
Gaia DR3 1966918416817884288	ROT	319	13.17	13.23	-0.06	✓	0.0357	0.0592	0.342		
Vend4	SR	320	13.09	10.75	+2.34	⚠	0.0309	0.0589	0.327		
Gaia DR3 1972969372904277888	E	303	13.13	17.57	-4.45	⚠	0.0309	0.0586	0.361		
Gaia DR3 1972971228329649664	RS	353	12.89	12.86	+0.03	✓	0.0263	0.0585	0.455		
Gaia DR3 1973857469062369408	ROT	369	12.97	12.99	-0.03	✓	0.0308	0.0585	0.527		
Gaia DR3 1972929618685633408	DSCT GDOR SXPHE	343	13.10	13.32	-0.22	✓	0.0310	0.0580	0.505		
Gaia DR3 1972973908389504768	ROT	364	12.93	12.92	+0.02	✓	0.0274	0.0580	0.508		
Gaia DR3 1973923164884371328	ROT	237	12.83	12.67	+0.16	✓	0.0269	0.0569	0.591		
Gaia DR3 1967687074221628800	ROT	354	12.70	12.56	+0.14	✓	0.0227	0.0565	0.367		
Gaia DR3 1966862268705015808	RS	305	13.06	13.17	-0.11	✓	0.0297	0.0560	0.593		
Gaia DR3 1966928449861830144	RS	306	13.31	13.19	+0.12	✓	0.0375	0.0560	0.347		
Gaia DR3 1973094545430398720	DSCT GDOR SXPHE	367	12.91	13.01	-0.10	✓	0.0324	0.0552	0.332		
ZTF J214634.40+441036.1	RS	328	12.73	13.00	-0.27	✓	0.0226	0.0538	0.384		
PMak V20	SRS	397	12.85	11.48	+1.38	⚠	0.0260	0.0537	0.413		
ZTF J214155.36+424507.3	SR	348	12.94	11.52	+1.42	⚠	0.0267	0.0537	0.587		
ASASSN-V J214445.79+432820.8	EA	362	12.81	13.13	-0.32	⚠	0.0239	0.0530	0.564		
Gaia DR3 1973021286162747904	DSCT GDOR SXPHE	363	12.95	13.14	-0.19	✓	0.0300	0.0524	0.490		
Gaia DR3 1972939991029278464	ROT	320	13.20	13.05	+0.15	✓	0.0335	0.0522	0.378		
Gaia DR3 1966864472027059584	DSCT GDOR SXPHE	315	12.76	12.97	-0.21	✓	0.0236	0.0516	0.515		

NAME	VARTYPE	N	MEASURED G	GAIA G	Δ	DB	MEDIAN_ERR	ROBUST_STD	RANGE	SIG	SAT
ASASSN-V J214017.03+425954.8	SR	363	12.94	11.51	+1.43	⚠	0.0273	0.0506	0.343		
Gaia DR3 1973105776759361152	DSCT GDOR SXPHE	294	12.55	12.72	-0.17	✓	0.0203	0.0503	0.375		
Gaia DR3 1973880180849962880	DSCT GDOR SXPHE	325	12.54	12.68	-0.14	✓	0.0199	0.0485	0.375		
Gaia DR3 1972885878737211264	DSCT GDOR SXPHE	376	12.86	13.13	-0.27	✓	0.0257	0.0475	0.581		
ASASSN-V J214641.58+442314.6	SR	317	12.61	11.43	+1.18	⚠	0.0207	0.0471	0.253		
V0639 Cyg	LB	280	12.70	10.70	+2.00	⚠	0.0218	0.0469	0.353		
Gaia DR3 1972821660387139712	ROT	148	12.54	12.73	-0.19	✓	0.0188	0.0462	0.842		
Gaia DR3 1973004656049382528	RS	355	12.71	13.04	-0.33	⚠	0.0229	0.0454	0.627		
PMAK V18	EA	406	12.44	12.61	-0.17	✓	0.0198	0.0424	0.626		
Gaia DR3 1972885260262133632	DSCT GDOR SXPHE	374	12.93	13.16	-0.22	✓	0.0272	0.0414	0.686		
Gaia DR3 1966889417198306688	ROT	284	12.15	12.30	-0.15	✓	0.0142	0.0354	4.956		
CP Cyg	CST	201	7.34	6.16	+1.18	⚠	0.0115	0.1592	5.581	✓	sat
V2839 Cyg	DSCT	251	8.11	8.31	-0.20	✓	0.0033	0.0948	0.557	✓	sat
Gaia DR3 1967707522568311168	DSCT GDOR SXPHE	391	8.78	8.87	-0.09	✓	0.0037	0.0522	0.333	✓	sat
UU Cyg	CST	423	8.57	8.88	-0.31	⚠	0.0037	0.0395	3.130	✓	sat