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The bibliographical entries for *Individual Stars* and *Collections of Data*, as well as a few *General* entries, are categorized according to the following coding scheme. Data from archives or databases, or previously published, are identified with an asterisk. The observation codes in the first four groups may be followed by one of the following wavelength codes.

- g. γ -ray. i. infrared. m. microwave. o. optical
 r. radio u. ultraviolet x. x-ray

1. Photometric data

- a. CCD b. Photoelectric c. Photographic d. Visual

2. Spectroscopic data

- a. Radial velocities b. Spectral classification c. Line identification d. Spectrophotometry

3. Polarimetry

- a. Broad-band b. Spectropolarimetry

4. Astrometry

- a. Positions and proper motions b. Relative positions only c. Interferometry

5. Derived results

- a. Times of minima b. New or improved ephemeris, period variations
 c. Parameters derivable from light curves d. Elements derivable from velocity curves
 e. Absolute dimensions, masses f. Apsidal motion and structure constants
 g. Physical properties of stellar atmospheres h. Chemical abundances
 i. Accretion disks and accretion phenomena j. Mass loss and mass exchange
 k. Rotational velocities

6. Catalogues, discoveries, charts

- a. Catalogues b. Discoveries of new binaries and novae
 c. Identification of optical counterparts of γ -ray, x-ray, IR, or radio sources d. Finding charts

7. Observational techniques

- a. New instrument development b. Observing techniques
 c. Reduction procedures d. Data-analysis techniques

8. Theoretical investigations

- a. Structure of binary systems b. Circumstellar and circumbinary matter
 c. Evolutionary models d. Loss or exchange of mass and/or angular momentum

9. Statistical investigations

10. Miscellaneous

- a. Abstract b. Addenda or errata

Abbreviations

AD	accretion disk	IP	intermediate polar	RV	radial velocity
BH	black hole	LC	light curve	SB	spectroscopic binary
CB	close binary	LMXB	low-mass x-ray binary	WD	white dwarf
CV	cataclysmic variable	NS	neutron star	WR	Wolf-Rayet star
EB	eclipsing binary	PSR	pulsar	GW	gravitational wave
HMXB	high-mass x-ray binary	QPO	quasi-periodic oscillation		

Individual Stars

- XZ And *Yuan, J.-Z., Qian, S.-B.* 2019, RAA 19, 128. (1ao, 5abe) A strange phenomenon: two Keplerian periods with a 1:3 ratio.
- CN And *Cai, J.-T. et al.* (4 authors) 2019, RAA 19, 106. (5ab) Mass transfer and possible third-body effect on the period of the near-contact binary.
- DS And *Milone, E.F. et al.* (4 authors) 2019, AJ 158, 82. (1ao, 2ao, 5abcde) Eclipsing SB2 in cluster NGC 752.
- V348 And *Zasche, P. et al.* (8 authors) 2019, AJ 158, 95. (1ao, 2ao, 5abcde) Eccentric EB in triple system.
- V1333 Aql
(Aql X-1) *Kubota, M. et al.* (7 authors) 2019, PASJ 71, 33. (2dx, 5ij) An enigmatic hump around 30 keV in Suzaku spectra of the LMXB in the hard state.
Qiao, E., Liu, B.F. 2019, MNRAS 487, 1626. (1rx, 5cgi) A model for the radio/X-ray correlation.
- V1343 Aql
(SS 433) *Cherepashchuk, A.M., Postnov, K.A., Belinski, A.A.* 2019, MNRAS, 485, 2638. (4i, 5e, 8bd) Mass ratio based on GRAVITY VLTI measurements of mass and angular momentum outflow through a circumbinary disc.
Khabibullin, I.I., Sazonov, S.Yu. 2019, AstL 45, 282. (1x, 5) Constraints on the collimated X-ray emission from molecular cloud reflection.
Medvedev, P.S., Khabibullin, I.I., Sazonov, S.Yu. 2019, AstL 45, 299. (2x, 5g) X-ray jet parameters from high-resolution Chandra spectroscopy.
Rasul, K. et al. (4 authors) 2019, MNRAS, 485, 2970. (1g, 2dg, 5ij) Evidence of periodicity in the γ -ray emission from 9 year Fermi-LAT data.
Waisberg, I. et al. (5 authors) 2019, A&A 624, A127. (4co, 5ij) Collimated radiation in the microquasar.
- V1405 Aql
(XB 1916–053) *Gambino, A.F. et al.* (9 authors) 2019, A&A 625, A92. (2dx, 5i) Spectral analysis of the dipping LMXB.
- V1828 Aql
(NSVS 14256825) *Zhu, L.-Y. et al.* (5 authors) 2019, RAA 19, 134. (1ao, 5abe) A close-in substellar object orbiting the sdOB-type EB.
- V1838 Aql *Echevarria, J. et al.* (18 authors) 2019, RMxAA 55, 21. (1ao, 5ab) Detailed study of superhumps and orbital period during 2013 superoutburst.
Hernández, J.V. et al. (18 authors) 2019, MNRAS 486, 2631. (1x, 2abc, 5cdg) Spectroscopic evolution from outburst to quiescence.
- V801 Ara *van der Wateren, E., Watts, A.L., Ootes, L.S.* 2019, ApJ 876, 11. (2dx) Unsuccessful search for the 835 Hz superburst oscillation signal.
- V821 Ara
(GX 339-4) *Aneesha, U, Mandal, S., Sreehari, H.* 2019, MNRAS 486, 2705. (1x*, 5cgi, 8a) Long-term evolution of the accretion dynamics.
Arur, K., Maccarone, T.J. 2019, MNRAS 486, 3451. (1x*, 5cgi, 8a) Non-linear variability of QPOs.
Connors, R.M.T. et al. (9 authors) 2019, MNRAS 485, 3696. (1irx, 5cgi) Timing characteristics and physical broad-band spectral modeling.
Dzieltak, M.A. et al. (6 authors) 2019, MNRAS 485, 3845. (5gi,8a) Models of disc truncation in the hard spectral state of an outburst.
Jiang, J. et al. (8 authors) 2019, MNRAS, 484, 1972. (1x, 2dx, 5hij) Modeling of *NuSTAR* and *Swift* observations with a high-density reflection model.
Mahmood, R.D., Done, C., De Marco, B. 2019, MNRAS 486, 137. (5egi, 8a) Reverberation reveals the truncated disc in the hard state.

Marcel, G. et al. (11 authors) 2019, A&A 626, A115. (2dx, 4cr, 5i, 8b) A unified accretion-ejection paradigm for BH XBs: Replication of the 2010-2011 activity cycle.

Zdziarski, A.A., Ziolkowski, J., Mikolajewska, J. 2019, MNRAS 488, 1026. (1x*, 5cegi, 8ad) Detailed evolutionary models for the donor.

RY Aur *Khaliullina, A.I.* 2019, ARep 63, 739. (5b) Orbital period variations of the EB.

QZ Aur *Schaefer, B.E. et al.* (10 authors) 2019, MNRAS 487, 1120. (1c, 5bcg) Precise measures of orbital period, before and after eruption.

V808 Aur *Zhilkin, A.G. et al.* (4 authors) 2019, ARep 63, 751. (5c, 8a). 3D numerical simulations of the flow structure in the eclipsing polar.

DW Cnc *Nucita, A.A., Conversi, L., Licchelli, D.* 2019, MNRAS, 484, 3119. (1x, 2cdx, 5b) XMM-Newton observations confirm this star is an accreting IP.

IU Cnc *Yuan, H.-Y., Dai, H.-F., Yang, Y.-G.* 2019, RAA 19, 85. (1ao, 5abcj) A solar-type contact binary with mass transfer.

EZ CMa *Schmutz, W., Knigsberger, G.* 2019, A&A 624, L3. (1a, 5abf) Very fast apsidal motion of the WR system.

η Car *Damineli, A. et al.* (17 authors) 2019, MNRAS, 484, 1325. (1aiou, 5abc) Using HST and La Plata Observatory observations to distinguish circumstellar from stellar photometric variability.

Kashi, A. 2019, MNRAS 486, 926. (5i, 8bd) Simulating the response of the secondary star to mass accretion at periastron passage.

V430 Car (HD 96446) *González, J.F. et al.* (17 authors) 2019, A&A 626, A94. (2ao, 5dg) Long-period binary with a strongly magnetic He-rich primary with β Cephei pulsations.

UU Cas *Gorda, S.Yu.* 2019, AstBu 74, 246. (10b) Erratum to 2017, AstBu 72, 321.

AL Cas *Wang, Y.-H. et al.* (4 authors) 2019, RAA 19, 108. (1ao, 5abce) From multicolor-photometric observations to the mass of the EB.

BH Cas *Liu, J. et al.* (13 authors) 2019, PASP 131, 084202. (1aoi, 1x, 2b, 5abcg) Multicolour photometry plus x-ray study of W UMa system.

GG Cas *Khaliullina, A.I.* 2019, ARep 63, 739. (5b) Orbital period variations of the EB.

MQ Cen *Bakış V. et al.* (9 authors) 2019, Ap&SS 364, 162. (1ao, 2ao, 5e) EB in OB association Crux OB1.

V779 Cen (Cen X-3) *Ji, L. et al.* (6 authors) 2019, MNRAS, 484, 3797. (1x, 2x, 5i) Long-term evolution of the cyclotron line energies.

CW Cep *Johnston, C., Pavlovski, K., Tkachenko, A.* 2019, A&A 628, A25. (2ao, 5de, 8c) Dynamical mass, core boundary mixing, and core mass of the B-type binary.

BR Cir (Cir X-1) *Coriat, M. et al.* (6 authors) 2019, MNRAS, 484, 1672. (1mr) Spatially resolved jet structures from sub-arcsecond to arcminute angular scales.

TV Col *Lopes de Oliveira, R., Mukai, K.* 2019, ApJ 880, 128. (2dx*) X-Ray study of the IP.

LL Com *Hu, K. et al.* (5 authors) 2019, AJ 158, 104. (1ao, 5abc) Near-contact totally eclipsing EB.

V691 CrA (XB 1822–371) (Sgr X-7) *Mazzola, S.M. et al.* (9 authors) 2019, A&A 625, L12. (2dx, 5b) LMXB stable orbit expansion over 40 years.

T CrB	<i>Evans, A. et al.</i> (12 authors) 2019, MNRAS 486, 3498. (1io, 2bc, 5cdg, 8b) Gas phase SiO in the circumstellar environment.
SV Crt (HD 98088)	<i>Vidal, J. et al.</i> (4 authors) 2019, A&A 629, A142. (8c) Fossil field decay due to nonlinear tides in the massive binary.
TV Crt (HD 98800)	<i>Franchini, A., Lubow, S.H., Martin, R.G.</i> 2019, ApJL 880, L18. (8ad) The inner radius of the circumbinary disk in the BaBb system of the quadruple is a diagnostic for disk-binary misalignment.
DF Cyg	<i>Manick, R. et al.</i> (10 authors) 2019, A&A 628, A40. (1ao, 2ao, 4ao, 5cd) SB.
V404 Cyg (GS 2023+338)	<i>Casares, J. et al.</i> (8 authors) 2019, MNRAS 488, 1356. (1ox, 5abcegi) Accretion and outflow in the system. <i>Lipunov, V.M. et al.</i> (26 authors) 2019, ARep 63, 534. (1ax, 3, 5c) Monitoring in the optical with robotic telescopes of the MASTER global network during the 2015 superburst. <i>Miller-Jones, J.C.A. et al.</i> (21 authors) 2019, Nature 569, 374. (2dx, 4cr, 5ij) A rapidly changing jet orientation in the stellar-mass BH XB.
V729 Cyg (Cyg OB5)	<i>Raww, G., Nazé, Y., Campos, F.</i> 2019, A&A 627, A2. (1aox, 2aox, 5bcd) Quest for the tertiary component in Cyg OB2 #5.
V1357 Cyg (Cyg X-1)	<i>Hirsch, M. et al.</i> (12 authors) (2dx, 5j) Chandra X-ray spectroscopy of focused wind. <i>Magbool, B. et al.</i> (11 authors) 2019, MNRAS 486, 2964. (1x, 5cgi, 8a) A stochastic propagation model to the energy dependent rapid temporal behaviour. <i>Mastroserio, G., Ingram, A., van der Klis, M.</i> 2019, MNRAS 488, 348. (1x, 5cgi, 8a) An X-ray reverberation mass measurement. <i>Tetarenko, A.J. et al.</i> (8 authors) 2019, MNRAS, 484, 2987. (1rx, 5i) Radio frequency timing analysis of the compact jet in the BH HMXB.
V2647 Cyg	<i>Kravtsova, A.S., Volkov, I.M., Chochol, D.</i> 2019, ARep 63, 495. (1ab, 5abce) EB physical parameters.
LT Del	<i>Ikonnikova, N.P., Komissarova, G.V., Arkhipova, V.P.</i> 2019, AstL 45, 361. (1b,5c) Second outburst of the yellow symbiotic star. <i>Ikonnikova, N.P. et al.</i> (4 authors) 2019, AstL 45, 217. (2d, 5g) Spectrum of the yellow symbiotic star before, during, and after the 2017 outburst.
V339 Del (Nova Del 2013)	<i>Jack, D., Schröder, K.P.</i> 2019, RMxAA 55, 141. (2doi) Optical and near infrared features of interstellar absorption in nova spectrum. <i>Skopal, A.</i> 2019, ApJ 878, 28. (1*aoi) SED multiwavelength modeling.
RW Dor	<i>Sarotsakulchai, T. et al.</i> (12 authors) 2019, PASJ 71, 34. (1ao, 5abce) A solar-type shallow contact binary with a new orbital period investigation.
AG Dra	<i>Lee, Y.-M. et al.</i> (4 authors) 2019, MNRAS 487, 2166. (2abc, 5dgij, 8a) Stellar-wind accretion and Raman-scattered O VI features.
EX Dra	<i>Khruzina, T.S. et al.</i> (5 authors) 2019, ARep 63, 571. (1a, 5c) Parameter determination of the long-period eclipsing dwarf nova from photometric observations during different activity states.
TZ Eri	<i>Wang, Z.-H. et al.</i> (4 authors) 2019, RAA 19, 107. (1ao, 5abej) Period investigation of the Algol system.
TU Her	<i>Wang, Z.-H. et al.</i> (4 authors) 2019, RAA 19, 107. (1ao, 5abej) Period investigation of the Algol system.
TX Her	<i>Zhu, L.-Y. et al.</i> (5 authors) 2019, RAA 19, 94. (1u, 5abc) Photometric investigation of the EB observed by LUT.

HZ Her (Her X-1)	<i>Ji, L. et al.</i> (6 authors) 2019, MNRAS, 484, 3797. (1x, 2x, 5i) Long-term evolution of the cyclotron line energies.
V1033 Her	<i>Long, L. et al.</i> (6 authors) 2019, MNRAS 487, 5520. (1ao, 2a, 5abcdeg) Spectroscopic and photometric study.
V1062 Her	<i>Long, L. et al.</i> (6 authors) 2019, MNRAS 487, 5520. (1ao, 2a, 5abcdeg) Spectroscopic and photometric study.
V1187 Her	<i>Caton, D. et al.</i> (7 authors) 2019, PASP 131, 054203. (1ao, 2c, 5abc) Extreme mass ratio W UMa EB.
RS Lep	<i>Khaliullina, A.I.</i> 2019, ARep 63, 739. (5b) Orbital period variations of the EB.
VZ Lib	<i>Liao, W.-P., Qian, S.-B., Sarotsakulchai, T.</i> 2019, AJ 157, 207. (1ao, 2ao, 5abcde) Third body information from light-time effect. <i>Yue, Q. et al.</i> (6 authors) 2019, RAA 19, 97. (1ao, 2co, 5abcgh) Orbital parameters and period variation of the short-period EB.
ϵ Lup	<i>Vidal, J. et al.</i> (4 authors) 2019, A&A 629, A142. (8c) Fossil field decay due to nonlinear tides in the massive binary.
IL Lup	<i>Banerjee, S., Chakraborty, C., Bhattacharyya, S.</i> 2019, MNRAS 487, 3488. (5gi, 8a) Alignment and precession of a BH misaligned with its AD.
V400 Lyr	<i>Long, L. et al.</i> (6 authors) 2019, MNRAS 487, 5520. (1ao, 2a, 5abcdeg) Spectroscopic and photometric study.
V574 Lyr	<i>Long, L. et al.</i> (6 authors) 2019, MNRAS 487, 5520. (1ao, 2a, 5abcdeg) Spectroscopic and photometric study.
V616 Mon (1A 0620–00)	<i>Chen, W.-C., Podsiadlowski, P.</i> 2019, ApJL 876, L11. (5i) Fast orbital shrinkage may be driven by the circumbinary disk. <i>Gallo, E. et al.</i> (10 authors) 2019, MNRAS 488, 191. (1r, 5cgi, 8bd) Clues on the nature of quiescent BH XB jets.
GU Mus	<i>Chen, W.-C., Podsiadlowski, P.</i> 2019, ApJL 876, L11. (5i) Fast orbital shrinkage may be driven by the circumbinary disk.
QX Nor (4U 1608–52)	<i>du Buisson, L., Motta, S., Fender, R.</i> 2019, MNRAS 486, 4485. (1x, 5bceg) Mass and spin measurements through the relativistic precession model.
V381 Nor (XTE J1550–564)	<i>Banerjee, S., Chakraborty, C., Bhattacharyya, S.</i> 2019, MNRAS 487, 3488. (5gi, 8a) Alignment and precession of a BH misaligned with its AD. <i>Connors, M.T. et al.</i> (10 Authors) 2019, ApJ 882, 179. (1x, 2x) Disk inclination estimates.
U Oph	<i>Johnston, C., Pavlovski, K., Tkachenko, A.</i> 2019, A&A 628, A25. (2ao, 5de, 8c) Dynamical mass, core boundary mixing, and core mass of the B-type binary.
V2134 Oph (MXB 1659–29)	<i>Parikh, A.S. et al.</i> (13 authors) 2019, A&A 624, A84. (2dx, 5i) Accretion-induced heating of the NS crust during outbursts. <i>Pondi, G. et al.</i> (6 authors) 2019, MNRAS 487, 858. (1x, 5cgi) Evolution of the disc atmosphere.
V2293 Oph (GRS 1716–249)	<i>Bharali, P. et al.</i> (7 authors) 2019, MNRAS 487, 3150. (1x, 5bcgi) Spectral and temporal analysis of observations during the 2016-2017 outburst.
V2400 Oph	<i>Joshi, A. Pandey, J.C., Singh, H.P.</i> 2019, AJ 158, 11. (1x*, 2x*, 5cgi) X-ray study of the IP.
V2731 Oph	<i>Lopes de Oliveira, R., Mukai, K.</i> 2019, ApJ 880, 128. (2dx*) X-ray study of the IP.

22 Ori (HD 35039)	<i>Şahin, T., Dervişoğlu, A.</i> 2019, <i>AstL</i> 45, 528. (2cdo, 5h). B-type abundance standard candidate in Ori OB1.
V643 Ori	<i>Andersen, J., Torres, G., Clausen, J.V.</i> 2019, <i>A&A</i> 624, A88. (1bo, 2ao, 5cde, 8c) Evolved, post-mass exchange detached EB.
V1853 Ori	<i>He, J.-J. et al.</i> (6 authors) 2019, <i>RAA</i> 19, 56. (1ao, 4a, 5abcej) New photometric investigation of the low-mass-ratio contact binary.
V2787 Ori	<i>Tian, X., Zhu, L., Wang, Z.</i> 2019, <i>PASP</i> 131, 084203. (1ao, 2bd, 5cg) Am-type contact binary with low mass ratio.
V572 Per	<i>Zasche, P. et al.</i> (8 authors) 2019, <i>AJ</i> 158, 95. (1ao, 2ao, 5abcde) Eccentric EB in triple system.
V723 Per	<i>Tian, X.-M., Zhu, L.-Y.</i> 2019, <i>PASJ</i> 71, 66. (1ao, 2abo, 5abcegj) A short-period Algol-like near-contact binary.
V1009 Per	<i>Michel, R. et al.</i> (4 authors) 2019, <i>RMxAA</i> 55, 65. (1ao, 5abc) High-inclination W UMa system.
YZ Phe	<i>Sarotsakulchai, T. et al.</i> (10 authors) 2019, <i>PASJ</i> 71, 81. (1ao, 5abcj) A very short period K-type contact binary with variation of the O'Connell effect and orbital period change.
VZ Psc	<i>Yue, Q. et al.</i> (6 authors) 2019, <i>RAA</i> 19, 97. (1ao, 2co, 5abcgh) Orbital parameters and period variation of the short-period EB.
DV Psc	<i>Gazeas, K., Palafouta, S.</i> 2019, <i>AcA</i> 69, 261. (5abce) Magnetically active hierarchical triple system. <i>Pi, Q.-F. et al.</i> (8 authors) 2019, <i>ApJ</i> 877, 75. (1bio, 2cdio) Magnetic and orbital period study.
V4046 Sgr	<i>Ruiz-Rodriguez, D. et al.</i> (6 authors) 2019, <i>AJ</i> 157, 237. (1i*, 1m, 5i, 8b) Constraints on possible planet's effect on circumbinary disc.
V5512 Sgr	<i>Maiolino, T. et al.</i> (5 authors) 2019, <i>A&A</i> 625, A8. (2dx, 5j) Red-skewed Fe K α lines in the LMXB.
V5668 Sgr	<i>Jack, D., Schröder, K.P.</i> 2019, <i>RMxAA</i> 55, 141. (2doi) Optical and near infrared features of interstellar absorption in nova spectrum.
AR Sco	<i>Peterson, E., Littlefield, C., Garnavich, P.</i> 2019, <i>AJ</i> 158, 131. (1ao*, 1ao, 2ao, 5cde) Long-term study shows lack of accretion or precession.
V1309 Sco	<i>Ferreira, T. et al.</i> (7 authors) 2019, <i>MNRAS</i> 486, 1220. (1i, 5bcg, 8a) A study about 10 yr after the outburst.
FG Sct	<i>Yue, Q. et al.</i> (6 authors) 2019, <i>RAA</i> 19, 97. (1ao, 2co, 5abcgh) Orbital parameters and period variation of the short-period EB.
MY Ser (HD 167971)	<i>Sanchez-Bermudez, J. et al.</i> (10 authors) 2019, <i>A&A</i> 624, A55. (4cr, 5j) The wind-wind collision region in the massive binary.
NY Ser	<i>Kato, T. et al.</i> (43 authors) 2019, <i>PASJ</i> 71, L1. (1ao, 5ij) Discovery of standstills in the SU UMa-type dwarf nova.
AY Sex (PSR J1023+0038)	<i>Papitto, A. et al.</i> (25 authors) 2019, <i>ApJ</i> 882, 104. (1oix) Simultaneous high time resolution observations. <i>Shahbaz, T. et al.</i> (4 authors) 2019, <i>MNRAS</i> 488, 198. (2abc, 5degi) Time-resolved optical spectroscopy.
RV Tau	<i>Manick, R. et al.</i> (10 authors) 2019, <i>A&A</i> 628, A40. (1ao, 2ao, 4ao, 5cd) SB.
CM Tau	<i>Tuo, Y.-L. et al.</i> (6 authors) 2019, <i>RAA</i> 19, 87. (1x, 5i) Insight-HXMT observations of the Crab PSR.

DQ Tau	<i>Muzerolle, J. et al.</i> (5 authors) 2019, ApJ 877, 29. (1io, 2io, 5i) Accretion flow in inner disk.
RV Tri	<i>Khaliullina, A.I.</i> 2019, ARep 63, 739. (5b) EB orbital period variations.
ER UMa	<i>Guzman, G., Sion, E.M., Godon, P.</i> 2019, AJ 158, 99. (2du, 5gi) IUE and FUSE observations of the active dwarf nova.
KV UMa	<i>Chen, W.-C., Podsiadlowski, P.</i> 2019, ApJL 876, L11. (5i) Fast orbital shrinkage may be driven by the circumbinary disk.
PZ UMa	<i>Zhou, X., Soonthornthum, B.</i> 2019, PASJ 71, 39. (1ao, 5abceg) A W-subtype active contact binary with a possible more massive tertiary.
GP Vel (Vel X-1)	<i>Ji, L. et al.</i> (6 authors) 2019, MNRAS, 484, 3797. (1x, 2x, 5i) Long-term evolution of the cyclotron line energies.
HU Vel (PSR B0833–45)	<i>Lu, F.-W. et al.</i> (4 authors) 2019, A&A 624, A144. (8bd) PSR wind nebula radiative properties.
HX Vel	<i>Blackford, M.G. et al.</i> (7 authors) 2019, MNRAS 487, 161. (1ao, 2a, 5abcdeg) Determination of absolute parameters.
NY Vir	<i>Preece, H.P., Tout, C.A., Jeffery, C.S.</i> 2019, MNRAS, 485, 2889. (8ac) Convection physics and tidal synchronization of the subdwarf binary using the Cambridge STARS code. <i>Song, S. et al.</i> (6 authors) 2019, AJ 157, 184. (1ao, 5ab) Times of minima yield properties of circumbinary planets.
CK Vul	<i>Tylenda, R., Kamiński, T., Mehner, A.</i> 2019, A&A 628, A124. (2ac, 5h) Elemental abundances in the ancient eruption remnant.
V378 Vul (WR 125)	<i>Midooka, T., Sugawara, Y., & Ebisawa, K.</i> 2019, MNRAS, 484, 2229. (2dx) Long-term X-ray variation of the colliding-wind WR binary.
V382 Vul	<i>Takeda, L., Diaz, M.</i> 2019, PASP 131, 054205. (1ao, 5g) Detection and imaging of nova shell.

HR, HD, HDE, BD, CoD, CPD, SAO Objects

HD 5980	<i>Hillier, D.J. et al.</i> (6 authors) 2019, MNRAS 486, 725. (1ou, 5cegj, 8a) Enigmatic system.
HD 34954 (TIC 309658221)	<i>Lee, J.W., Kristiansen, M.H., Hong, K.</i> 2019, AJ 157, 223. (1ao, 5abc) Close EB with a pulsating component.
HD 35039	(see 22 Ori)
HD 50169	<i>Mathys, G. et al.</i> (8 authors) 2019, A&A 624, A32. (2da, 3b, 5d) Ap star magnetic field variations and updated orbital elements of the SB.
HD 81357	<i>Koubský, P. et al.</i> (13 authors) 2019, A&A 629, A105. (1ao, 2abco,5e) The binary nature, light variability, physical elements, and emission-line changes of the Be star.
HD 93162	<i>Arora, B., Pandey, J.C., De Becker, M.</i> 2019, MNRAS 487, 2624. (1x*, 5cdeg) The colliding wind WN+O binary.
HD 96446	(see V430 Car)
HD 98088	(see SV Crt)
HD 98800	(see TV Crt)
HD 121212	<i>Scarfe, C.D.</i> 2019, RMxAA 55, 131. (2ao, 5d) RVs and orbit of SB1.
HD 130948 BC	<i>Breisemeister, Z.W. et al.</i> (9 authors) 2019, AJ 157, 244. (2ai, 8ac) Study of brown-dwarf binary.

HD 148434	<i>Scarfe, C.D.</i> 2019, RMxAA 55, 131. (2ao, 5d) RVs and orbit of SB1.
HD 148912	<i>Scarfe, C.D.</i> 2019, RMxAA 55, 131. (2ao, 5d) RVs and orbit of SB1.
HD 156324	<i>Vidal, J. et al.</i> (4 authors) 2019, A&A 629, A142. (8c) Fossil field decay due to nonlinear tides in the massive binary.
HD 159062	<i>Hirsch, L.A. et al.</i> (14 authors) 2019, ApJ 878, 50. (1ai, 2ai) Discovery of a WD companion.
HD 167971	(see MY Ser)
HD 200031	<i>Griffin, R.F.</i> 2019, Observatory 139, 111. (2ao, 5d) RVs and orbit of SB1 with 63-year period.
HD 221613 (HIP 116259) (GJ 9830)	<i>Masda, S.G., Al-Wardat, M.A., Pathan, J.M.</i> 2019, RAA 19, 105. (1ao, 5ce) Orbital and physical parameters of the CB.
HD 224355	<i>Lester, K.V. et al.</i> (8 authors) 2019, AJ 157, 140. (2ad, 4c, 5deghk) SB masses and distance from spectroscopic and CHARA astrometric orbits.
BD +11°3569	<i>Williams, S.J. et al.</i> (7 authors) 2019, AJ 158, 118. (1ao*, 1ao, 2ao, 5cde) B-type EB.

Objects with names including RA and DEC

IPHAS J005311.21+673002.1	<i>Gvaramadze, V.V. et al.</i> (7 authors) 2019, Nature 569, 684. (1ao, 2cdio, 5ghj, 6b) A massive WD merger product before final collapse.
SDSS J0222–0313	<i>Caffau, E. et al.</i> (12 authors) 2019, A&A 628, A46. (2co, 5h) The first evidence of proton ingestion in a very low-metallicity CEMP star?
Swift J0243.6+6124	<i>van den Eijnden, J. et al.</i> (11 authors) 2019, MNRAS 487, 4355. (1x, 5cgi) A possible ultrafast outflow in the super-Eddington Be/XB.
CRTS J031642.2+332639	<i>Michel, R. et al.</i> (4 authors) 2019, RMxAA 55, 65. (1ao, 5abc, 6d) New W UMa system in same field as V1009 Per.
CRTS J035010.7+323230	<i>Mason, P.A. et al.</i> (5 authors) 2019, MNRAS 488, 2881. (1ao, 2abc, 5abcegi, 6b) A new eclipsing polar in the CV period gap.
1A 0538–66	<i>Ducci, L., Mereghetti, S., Santangelo, A.</i> 2019, ApJL 881, L17. (1x, 2x) Fast-spinning accreting of the Be/X-ray PSR. <i>Ducci, L. et al.</i> (5 authors) 2019, A&A 624, A9. (2dx*, 5i, 8b) X-ray reprocessing and irradiation in the Be/XB outbursts.
MASTER OT J061451.70–272535.5 1A 0620–00	<i>Breytenbach, H. et al.</i> (12 authors) 2019, MNRAS, 484, 3831. (1o, 2abcd, 5bcei, 6cd) Discovery, observations, and modeling of a new eclipsing polar. (see V616 Mon)
Swift J0746.3–1608	<i>Bernardini, F. et al.</i> (4 authors) 2019, MNRAS, 484, 101. (1ox, 2dx, 5cik) Identification as a possible magnetic CV of the IP type.
MASTER OT J075353.88+174907.6 2MASS J08255189+2427045 (NSVS 7394765)	<i>Perikh, A.S. et al.</i> (4 authors) 2019, RMxAA 55, 55. (1ao, 2d) Follow-up observations suggest transient event was superoutburst of dwarf nova. <i>Healy, B.F. et al.</i> (7 authors) 2019, AJ 158, 89. (1ao, 1ao*, 2ai, 5abcde) New solution using high-resolution IR spectra, without magnetic hyperinflation.
PSR B0833–45	(see HU Vel)
GRO J1008–57	<i>Xing, Y., Wang, Z.</i> 2019, ApJ 882, 112. (1x) Likely Fermi detection of the Be HMXB.
PSR J1023+0038	(see AY Sex)

2MASS J10274572+0629104	<i>Paudel, R.R. et al.</i> (4 authors) 2019, MNRAS 486, 4144. (1ao, 2a, 5bcdeg) A very short period young M6 dwarf binary.
XTE J1118+480	(see KV UMa)
PSR J1231–1411	<i>Ray, P.S. et al.</i> (13 authors) 2019, ApJL 878, L22. (2dx) Flux is dominated by hot spot(s) on the NS.
PSR J1306–40	<i>Swihart, S.J. et al.</i> (4 authors) 2019, ApJ 876, 8. (1bio, 2bdio, 5e) Redback minimum NS mass of $1.75 M_{\odot}$.
Swift J1357.2–0933	<i>Beri, A. et al.</i> (11 authors) 2019, MNRAS 485, 3064. (1x, 5cgi) Correlation between the simultaneous X-ray and ultraviolet/optical data.
Swift J1357.2–0933	<i>Paice, J.A. et al.</i> (16 authors) 2019, MNRAS 488, 512. (1orx, 5cgi, 8a) Multiwavelength photometry.
1RXS J152506.9–032647	<i>Gabdeev, M.M. et al.</i> (6 authors) 2019, Astroph. Bul. 2019, 308. (1a, 2ac, 5bcd) Spectroscopic and photometric study of the Polar.
MAXI J1535–571	<i>Bhargava, Y. et al.</i> (4 authors) 2019, MNRAS 488, 720. (1x, 5cegi) Spectro-timing analysis of the XB.
MAXI J1535–571	<i>Parikh, A.S. et al.</i> (6 authors) 2019, ApJL 878, L28. (1x, 2x) Disk-jet coupling during re-brightenings in the BH transient. <i>Sreehari, H. et al.</i> (7 authors) 2019, MNRAS 487, 928. (1x, 5bcegi) Broad-band spectro-temporal features. <i>Sridhar, N. et al.</i> (4 authors) 2019, MNRAS 487, 4221. (1x, 5cegi) Estimation of BH mass and spin.
ZTF J153932.16+502738.8	<i>Burdge, K.B. et al.</i> (26 authors) 2019, Nature 571, 528. (1aoi, 2ao, 5abcde) General relativistic orbital decay in a seven-minute-orbital-period EB. <i>Littenberg, T.B., Cornish, N.J.</i> 2019, ApJL 881, L43. (8ad) LISA prospects for GW measurement of the system.
4U 1543–47	(see IL Lup)
XTE J1550–564	(see V381 Nor)
2MASS J16072787+1213590 (NSVS 10653195)	<i>Iglesias-Marzoa, R. et al.</i> (6 authors) 2019, A&A 627, A153. (1ao, 2ao, 5e) Absolute dimensions of the low-mass EB.
4U 1608–52	(see QX Nor)
4U 1636–536	(see V801 Ara)
IGR J16493–4348	<i>Coley, J.B. et al.</i> (7 authors) 2019, ApJ 879, 34. (1x, 2x) 20-day superorbital modulation in the HMXB.
Swift J1658.2–4242	<i>Yanjun, X. et al.</i> (9 authors) 2019, ApJ 879, 93. (1x, 2x) Rapid flux variation and the turn-on of a transient QPO.
MXB 1659–298	(see V2134 Oph)
CXOU J171405.7–381031	<i>Watanabe, H. et al.</i> (4 authors) 2019, PASJ 71, 84. (2dx, 5i) XMM-Newton spectrum of the magnetar.
GRS 1716–249	(see V2293 Oph)
4U 1728–34 (GX 354-00)	<i>Lyu, M. et al.</i> (4 authors) 2019, MNRAS, 484, 3434. (1x, 2dx, 5ij) The ionization state of the AD in the NS LMXB. <i>Mahmoodifar, S. et al.</i> (10 authors) 2019, ApJ 878, 145. (1x, 2x) NICER observation of large-amplitude X-ray burst oscillations. <i>Qiao, E., Liu, B.F.</i> 2019, MNRAS 487, 1626. (1rx, 5cgi) A model for the radio/X-ray correlation. <i>Wang, Y. et al.</i> (10 authors) 2019, MNRAS, 484, 3004. (1x, 2dx, 5) X-ray properties from the soft-to-hard state. X-ray spectra fitted with reflection models.

PSR B1737–30	<i>Liu, J. et al.</i> (8 authors) 2019, RAA 19, 73. (1r, 5b) One large glitch detected with the Shanghai Tian Ma Radio Telescope (TMRT).
IGR J17379–3747	<i>Bult, P. et al.</i> (10 authors) 2019, ApJ 877, 70. (2dx) Properties explained by favorable viewing geometry and misaligned magnetic angle.
H 1743–322	<i>Banerjee, S., Chakraborty, C., Bhattacharyya, S.</i> 2019, MNRAS 487, 3488. (5gi, 8a) Alignment and precession of BH misaligned with its AD. <i>Ghosh, A., Chakraborty, S.K.</i> 2019, MNRAS 485, 4045. (1x, 5cgi) Anomalous outbursts.
GRO J1744–28	<i>Mönkkönen, J. et al.</i> (6 authors) 2019, A&A 626, A106. (2dx, 5i) Radiation-pressure dominated AD in bursting PSR from timing analysis.
EXO 1745–248	<i>Qiao, E., Liu, B.F.</i> 2019, MNRAS 487, 1626. (1rx, 5cgi) A model for the radio/X-ray correlation.
CXOGBS J174623.5–310550	<i>Torres, M.A.P. et al.</i> (15 authors) 2019, MNRAS 487, 2296. (1io, 2ab, 5cdeg) Constraining the nature of the accreting binary.
1RXS J174755.8–263352 (GX 3+1) (Sgr X-1)	<i>Mondal, A.S., Dewangan, G.C., Raychaudhuri, B.</i> 2019, MNRAS 487, 5441. (1x, 5cegi) The LMXB reflection spectrum.
IGR J17480–2446	<i>Ootes, L.S. et al.</i> (13 authors) 2019, MNRAS 487, 1447. (1x, 5cg) Continued cooling of the accretion-heated NS crust.
GRO J1750–27	<i>Lutovinov, A.A. et al.</i> (5 authors) 2019, MNRAS, 485, 770. (1ix, 2dix, 6cd) XB PSR located far behind the Galactic Centre, which makes it one of the furthest Galactic XBs known.
IGR J17503–2636	Ferrigno, C. et al. (7 authors) 2019, A&A 624, A142. (2dx Supergiant fast X-ray transient.
IGR J17591–2342	<i>Nowak, M.A. et al.</i> (8 authors) 2019, ApJ 874, 69. (2cdx) System may be a NS LMXB.
1RXS J180108.7–250444 (GX 5-1)	<i>Bhulla, Y. et al.</i> (4 authors) 2019, RAA 19, 114. (1x, 2dx, 5i) AstroSat observation and spectral and timing evolution.
MAXI J1807+132	<i>Jiménez-Ibarra, F. et al.</i> (9 authors) 2019, MNRAS, 484, 2078. (1ox, 2bc-dox) Optical and X-ray monitoring from outburst to quiescence. Reflares with a quasi-periodic recurrence time of ~ 6.5 d. No donor star detection.
XMMU J181227.8–181234	<i>Goodwin, A.J. et al.</i> (6 authors) 2019, MNRAS 486, 4149. (1x, 5cegi) A new ultracompact X-ray binary candidate.
MAXI J1813–095	<i>Padilla, M.A. et al.</i> (8 authors) 2019, MNRAS 485, 5235. (1ox, 5bcgi) Multiwavelength spectroscopy during outburst.
4U 1820–30 (Sgr X-4)	<i>Strohmayer, T.E. et al.</i> (17 authors) 2019, ApJL 878, L27. (2dx) Spectral evidence for burst-driven winds.
MAXI J1820+070 (ASASSN-18ey)	<i>Bharali, P., Chauhan, J., Boruah, K.</i> 2019, MNRAS 487, 5946. (1x, 5cgi) Broad-band spectral study. <i>Muñoz-Darias, T. et al.</i> (19 authors) 2019, ApJL 879, L4. (2o) Hard-state BH AD winds. <i>Torres, M.A.P. et al.</i> (7 Authors) 2019, ApJ 882, L21. (2ao, 5d) Dynamical confirmation of a BH in the LMXB.
XB 1822–371	(V691 CrA)
PSR J1836–2354A	<i>Amato, R. et al.</i> (8 authors) 2019, MNRAS 486, 3992. (1gox, 5ceg) Search for multiwavelength emission in the binary millisecond PSR.
2MASS J18500799+4404247	<i>Masuda, K. et al.</i> (7 Authors) 2019, ApJL 881, L3. (1a, 2ab, 5d) Self-lensing binary with a $0.2 M_{\odot}$ WD and a Sun-like star.

2MASS J19060913+5027500 (KIC 12004834) 4U 1907+09	<i>Yoldas, E., Dal, H.A.</i> 2019, RMxAA 55, 73. (1ao*, 5abcg) EB with spots and flares.
PSR J1909–3744	<i>Varun, P.P. et al.</i> (4 authors) 2019, ApJ 880, 61. (1x, 2x) Pulse phase variation of the cyclotron line in the HMXB.
IRAS 19108+1541 (Hen 2-428) XB 1916–053	<i>Webb, N.A. et al.</i> (9 authors) 2019, A&A 627, A141. (2cx, 5e) Thermal X-ray emission identified from the millisecond PSR.
2MASS J19260597+3827210 (KOI-3278)	<i>Wu, D.-H., Liu, D.-D., Wang, B.</i> 2019, RAA 19, 57. (8cd) Past and future of the central double-degenerate PN core.
2MASS J19333970+4255021	(see V1405 Aql)
2MASS J19342636+4501070	<i>Yahalom, D.A. et al.</i> (13 authors) 2019, ApJ 880, 33. (2ai, 5d) The mass of the WD companion in the self-lensing binary.
2MASS J19423720+4745486 (KIC 10544976) AX J1949.8+2534	<i>Wang, K. et al.</i> (4 authors) 2019, MNRAS 486, 2462. (1ao, 2a, 5abce, 6b) A new R CMa-type EB.
PSR J1949+3106	<i>Wang, K. et al.</i> (4 authors) 2019, MNRAS 486, 2462. (1ao, 2a, 5abce, 6b) A new R CMa-type EB.
2MASS J19505785+4259459 PSR J1950+2414	<i>Almeida, L.A. et al.</i> (9 authors) 2019, AJ 157, 150. (1ao, 5ab) Eclipse timing variations due to Applegate mechanism or light-time effect?
MAXI J1957+032	<i>Hare, J. et al.</i> (6 authors) 2019, ApJ 878, 15. (1ao, 2cgox, 6c) Optical counterpart is B-type Ia.
GS 2023+338 PSR J2055+3829	<i>Zhu, W.W. et al.</i> (18 authors) 2019, ApJ 880, 128. (1r) Mass of the binary PSR discovered in the PALFA survey.
1E 2259+586	<i>Guo, Z., Li, G.</i> 2019, ApJL 882, L5. (1o*, 9) γ Dor pulsator in the EB.
CS 22876–032	<i>Zhu, W.W. et al.</i> (18 authors) 2019, ApJ 880, 128. (1r) Mass of the binary PSR discovered in the PALFA survey.
	<i>Beri, A. et al.</i> (6 authors) 2019, MNRAS 486, 1620. (1x, 5cg) Unveiling the nature of the compact object in the LMXB.
	(see V404 Cyg)
	<i>Guillemot, L. et al.</i> (8 authors) 2019, A&A 629, A92. (15, 5c) Timing of the eclipsing black widow PSR discovered with the Nançay Radio Telescope.
	<i>Pizzicato, D. et al.</i> (10 authors) 2019, A&A 626, A39. (2dx) X-ray spectroscopy of the HMXB magnetar.
	<i>González Hernández, J.I. et al.</i> (7 authors) 2019, A&A 628, A111. (2co, 5h) The $^6\text{Li}/^7\text{Li}$ isotopic ratio in the metal-poor binary.

X-ray sources with constellation or galaxy names

Aql X-1	(see V1333 Aql)
Cen X-3	(see V779 Cen)
Cir X-1	(see BR Cir)
Cyg X-1	(see V1357 Cyg)
Her X-1	(see HZ Her)
Sgr X-1	(see 1RXS J174755.8–263352)
Sgr X-4	(see 4U 1820–30)
Sgr X-7	(see V691 CrA)
Vel X-1	(see GP Vel)

SMC X-1

(see 2MASS J01170514–7326360)

Objects with other designations

ASASSN-16oh

Hillman, Y. et al (6 authors) 2019 ApJL 879, L5. (2x) Thermonuclear runaway without mass ejection.

ASASSN-18ey

(see MAXI J1820+070)

AT 2017jfs

Pastorello, A. et al. (46 authors) 2019, A&A 625, L8. (1aio, 2cdio) Luminous red nova in NGC 4470.

CDF-S XT2

Xiao, D., Zhang, B.B., Dai, Z.-G. 2019 ApJL 879, L7. (2x) Properties of a newborn magnetar powering the X-ray transient.

Xue, Y.Q. et al. (17 authors) 2019, Nature 568, 198. (2dx) A magnetar-powered X-ray transient as the aftermath of a binary NS merger.

EPIC 202843107

Ou, J.-W., Yang, M., Zhou, J.-L. 2019, RAA 19, 112. (1ao, 5abcg, 6b) A close EB containing a δ Scuti variable.

EPIC 212036875

Persson, C.M. et al. (58 authors) 2019, A&A 628, A64. (1ao, 2ao, 5e) Greening of the brown-dwarf desert: the b component is a 51 M_J object in a 5-day orbit around an F7 V star.

Gaia 14aae

Green, M.J. et al. (11 authors) 2019, MNRAS, 485, 1947. (2abco, 5dij) Phase-resolved spectroscopy of the AM CVn binary with total eclipses of the central WD. Line emission from near the WD surface.

GAIA 3029912407273360512

Richer, H.B. et al. (7 authors) 2019, ApJ 880, 75. (1*, 2o) A massive magnetic He atmosphere WD binary in M47.

GJ 9830

(see HD 221613)

GW170817

Goldstein, D. A. et al. (20 Authors) 2019, ApJL 881, L7. (1i) Failed search for the NS-BH merger counterpart.

(AT 2017gfo)

Lin, H., Totani, T., Kiuchi, K. 2019, MNRAS, 485, 2155. The non-thermal afterglow of the binary NS merger considering a more natural modelling of electron energy distribution.

Lourenço, O. et al. (6 authors) 2019, ApJ 882, 67. (8ad) A density-dependent van der Waals model gives consistent results.

Motta, T.F. et al. (6 Authors) 2019, ApJ 878, 159. (8ac) NS isovector effects on radii and system constraints.

Oliver, M. et al. (5 authors) 2019, MNRAS, 485, 843. (8ad) Matched-filter study and energy budget suggest no detectable GW extended emission.

Waxman, E., Ofek, E.O., Kushnir, D. 2019, ApJ 878, 93. (8ac) Late-time LCs.

Wu, Y., MacFadyen, A. 2019, ApJL 880, L23. (1g) Afterglow reveals that short γ -ray bursts are NS mergers.

GX 3+1

(see 1RXS J174755.8–263352)

GX 5-1

(see 1RXS J180108.7–250444)

GX 339-4

(see V821 Ara)

GX 354-00

(see 4U 1728–34)

Hen 2-428

(see IRAS 19108+1541)

Herschel 36 A

Campillay, A.R. et al. (6 authors) 2019, MNRAS, 484, 2137. (1ao, 2abc, 5bde) Orbital properties of the extremely young O-type triple system in the Hourglass nebula.

HIP 116259

(see HD 221613)

KIC 7368103	(see 2MASS J19333970+4255021)
KIC 7385478	(see 2MASS J19505785+4259459)
KIC 8145411	(see 2MASS J18500799+4404247)
KIC 8823397	(see 2MASS J19342636+4501070)
KIC 10544976	(see 2MASS J19423720+4745486)
KIC 12004834	(see 2MASS J19060913+5027500)
KOI-3278	(see 2MASS J19260597+3827210)
KSP-OT-201611a	<i>Lee, Y. et al.</i> (6 authors) 2019, ApJ 880, 109. (1o) Discovery of a Population II dwarf nova candidate.
L1448 IRS 2	<i>Kwon, W. et al.</i> (7 authors) 2019, ApJ 879, 25. (1x, 2x) Hourglass shaped magnetic fields in the Class 0 protobinary system.
L1551 IRS 5	<i>Cruz-Sáenz de Miera, F. et al.</i> (5 authors) 2019, ApJL 882, L4. (8ad) Resolved ALMA continuum image of the circumbinary ring and circumstellar disks.
LIGO/Virgo S190425z	<i>Hosseinzadeh, G. et al.</i> (25 authors) 2019, ApJL 880, L4. (1aoi, 2do) Likely binary NS merger. <i>Song, H.-R. et al.</i> (6 Authors) 2019, ApJL 881, L40. (2dg, 8ad) Viewing angle constraints on GW/ γ -ray detection fractions for the binary NS merger.
LIGO/Virgo S190426c	<i>Hosseinzadeh, G. et al.</i> (25 authors) 2019, ApJL 880, L4. (1aoi, 2do) Possibly the first BH-NS merger ever detected. <i>Song, H.-R. et al.</i> (6 Authors) 2019, ApJL 881, L40. (2dg, 8ad) Viewing angle constraints on GW/ γ -ray detection fractions for the binary NS merger.
LMC S154	<i>Ikiewicz, K. et al.</i> (6 authors) 2019, A&A 624, A133. (1ao, 2dou,) Symbiotic recurrent nova.
M51 ULX-8	<i>Middleton, M.J. et al.</i> (7 authors) 2019, MNRAS 486, 2. (5gi, 8a) The magnetic field of the system.
Melnick 34	<i>Tehrani, K.A. et al.</i> (7 authors) 2019, MNRAS, 484, 2692. (2abcdo, 5bde, 6d) Orbital solution for the SB2 WN5h+WN5h binary system, and one of the most massive systems known.
N604-WRX	<i>Garofali, K. et al.</i> (4 authors) 2019, ApJ 880, 8. (1x, 2xo) First candidate colliding-wind WR+O binary in M33.
NGC 2392	<i>Miszalski, B. et al.</i> (4 authors) 2019, PASA 36, e018. (2ao, 2dx, 5bdeij) The post-common-envelope XB nucleus of the PN.
NLTT 5306	<i>Longstaff, E.S. et al.</i> (7 authors) 2019, MNRAS, 484, 2566. (1iou, 2abdiox, 5bdegi) Signs of accretion in the WD+brown dwarf binary.
Nova Del 2013	(see V339 Del)
Nova Mus 1991	(see GU Mus)
NSV 1440	<i>Isogai, K. et al.</i> (8 authors) 2019, PASJ 71, 48. (1ao, 5i) The first WZ Sge-type object in AM CVn stars and candidates.
NSVS 7394765	(see 2MASS J08255189+2427045)
NSVS 10653195	(see 2MASS J16072787+1213590)
NSVS 14256825	(see V1828 Aql)
OGLE-2018-BLG-0022	<i>Street, R.A. et al.</i> (35 authors) 2019, AJ 157, 215. (1ao, 2b) Lensing object is a close binary with M3+M7 components at about 1 kpc distance.

OGLE-UCXB-01	<i>Pietrukowicz, P. et al.</i> (5 Authors) 2019, ApJL 881, L41. (1o*i*) Discovery of a 12.8 minute ultracompact XB.
SS 433	(see V1343 Aql)
SXP 4.78	<i>Monageng, I.M. et al.</i> (9 authors) 2019, MNRAS 485, 4617. (1ox, 5bcg, 6c) Type II outburst and the identification of the optical counterpart.
SXP 5.05	<i>Brown, R.O. et al.</i> (4 authors) 2019, MNRAS 486, 3078. (1x, 5cgj, 8b) Modelling the observable behaviour.
SXP 348	<i>Cappallo, R. et al.</i> (5 authors) 2019, MNRAS 486, 3248. (1x*, 5cgi, 8ab) On the geometry of the X-ray emission.
TIC 309658221	(see HD 34954)
VFTS 352	<i>Abdul-Masih, M.</i> (13 authors) 2019, ApJ 880, 115. (2cuo, 5bdi) Anomalous abundances and component temperatures for the massive contact binary.
WOCS 1007	<i>Sindhu, N. et al.</i> (10 authors) 2019, ApJ 882, 43. (1uoi, 2u*) Detection of WD companion to a Blue Straggler in M67.
WOCS 7782	<i>Portegies Zwart, S., Leigh, N.W.C.</i> 2019, ApJL 876, L33. (8b) Explains the double blue straggler via mass transfer from a tertiary star.
WR 25	(see HD 93162)
WR 125	(see V378 Vul)

General

Ablimit, I. 2019, ApJ 881, 72. (8ab) Accretion-induced collapse from magnetic WD binaries and formation of binary millisecond PSRs: redbacks and black widows.

Angeloni, R. et al. (19 authors) 2019, AJ 157, 156. Search for extragalactic symbiotic stars using narrow-band photometry.

Ascenzi, S. et al. (5 authors) 2019, ApJ 877, 94. (8c) New method for measuring NS radii.

Bancelin, D. et al. (4 authors) 2019, MNRAS 486, 4773. Dynamics of passing-stars-perturbed binary star systems.

Barbieri, C. et al. (5 authors) 2019, A&A 625, A152. (8) LC models of BH-NS mergers: steps towards a multi-messenger parameter estimation.

Boco, L. et al. (6 authors) 2019, ApJ 881, 157. (8ac) Merging rates of compact binaries in galaxies and GW detections.

Brown, R.O. et al. (4 authors) 2019, MNRAS 488, 387. Modelling accretion discs in Be/XBs.

Carbone, D., Wijnands, R. 2019, MNRAS 488, 2767. Constraining the duty cycle of transient LMXBs through simulations.

Casey, A.R. et al. (13 authors) 2019, ApJ 880, 125. (2coi, 5h) Tidal interactions between binary stars can drive lithium production in low-mass red giants.

Chashkina, A. et al. (4 authors) 2019, A&A 626, A18. (8abd) Super-Eddington ADs with advection

and outflows around magnetized NSs.

Chen, J., Xia, F., Fu, Y.-N. 2019, ChAA 43, 342. A new algorithm in computations of binary stars observational quantities and its application.

Claret, A. 2019, A&A 628, A29. (8ac) Updating the theoretical tidal evolution constants: apsidal motion and the moment of inertia.

Datta, S.R., Mukhopadhyay, B. 2019, MNRAS 486, 1641. Nucleosynthesis in advective ADs and outflow: possible explanation for overabundances in winds from XBs.

De Pietri, R. et al. (7 authors) 2019, ApJ 881, 122. (8ac) Merger of compact stars in the two-families scenario.

Eya, I.O., Urama, J.O., Chukwude, A.E. 2019, RAA 19, 89. (9) On the distributions of PSR glitch sizes and the inter-glitch time intervals.

Fang, X., Thompson, T.A., Hirata, C.M. 2019, ApJ 875, 75. (8c) An estimate of the population of eccentric binary BHs.

Farrow, N., Zhu, X.-J., Thrane, E. 2019, ApJ 876, 18. (8c) The mass distribution of galactic double NSs.

Fleming, D.P. et al. (4 authors) 2019, ApJ 881, 88. (8cd) Rotation period evolution in low-mass binary stars: interplay of tidal torques and magnetic braking.

Franchini, A., Martin, R.G., Lubow, S.H. 2019, MNRAS, 485, 315. (8abd) Misaligned AD formation via Kozai-Lidov oscillations.

Franchini, A., Martn, R.G. 2019, ApJL 881, L32. (8ad) Type I outbursts in low-eccentricity Be/XBs.

Fukue, J. 2019, PASJ 71, 38. Radiative shocks in disk accretion.

Gaebel, S.M. et al. (4 authors) 2019, MNRAS, 484, 4008. (7bd) Digging the population of compact binary mergers out of the noise.

Gao, F. et al. (5 authors) 2019, RAA 19, 100. The application of co-integration theory in ensemble PSR timescale algorithms.

Giliberti, E. et al. (4 authors) 2019, PASA 36, e036. Incompressible analytical models for spinning-down PSRs.

Götberg, Y. et al. (5 authors) 2019, A&A 629, A134. (8bd) Impact of stars stripped in binaries on the integrated spectra of stellar populations.

Göttgens, F. et al. (14 authors) 2019, A&A 626, A69. (6b) Discovery of an old nova remnant in the Galactic globular cluster M22.

Hamers, A.S., Thompson, T.A. 2019, ApJ 882, 24. (8ac) The impact of WD natal kicks and stellar flybys on the rates of Type Ia SNe in triple-star systems.

- Hamilton, C., Rafikov, R.R.* 2019, ApJL 881, L13. (8ad) Compact object binary mergers driven by cluster tides: a new channel for LIGO/Virgo GW events.
- He, X., Meng, X.-C., Chen, H.-L.* 2019, RAA 19, 110. Formation of accreting millisecond X-ray PSRs.
- Higginbottom, N. et al.* (5 authors) 2019, MNRAS, 484, 4644. (8bd) Luminosity dependence of thermally driven disc winds in LMXBs.
- Holgado, A.M., Ricker, P.M.* 2019, ApJ 882, 39. (8ac) Gravitational radiation from CBs with time-varying masses.
- Ingram, A. et al.* (6 authors) 2019, MNRAS 488, 324. A public relativistic transfer function model for X-ray reverberation mapping of accreting BHs.
- Inoue, H.* 2019, PASJ 71, 36. Reproductions of super-orbital X-ray LCs with the precessing accretion ring model and implications on accretion flows through accretion rings.
- Islam, N. et al.* (5 authors) 2019, MNRAS 487, 2785. Cosmological implications of the composite spectra of galactic XBs constructed using MAXI data.
- Johnson, M.A.C et al.* (7 authors) 2019, MNRAS, 484, 19. (9o) Prospecting for periods with LSST – LMXBs as a test case.
- Johnstone, C.P. et al.* (5 authors) 2019, A&A 626, A22. (8cd) Stellar activity and planetary atmosphere evolution in tight binary star systems.
- Karino, S., Nakamura, K., Taani, A.* 2019, PASJ 71, 58. Stellar wind accretion and AD formation: applications to NS HMXBs.
- Keegans, J. et al.* (9 authors) 2019, MNRAS, 485, 620. (8abcd) Nucleosynthetic yields from NSs accreting in common envelopes.
- Kim, H., Liu, S.-Y., Taam, R.E.* 2019, ApJS 243, 35. (8ab) Templates of binary-induced spiral-shell patterns around mass-losing post-main-sequence stars.
- King, A., Lasota, J-P.* 2019, MNRAS 485, 3588. No magnetars in ULXs.
- Kley, W., Thun, D., Penzlin, A.B.T.* 2019, A&A 627, A91. (8b) Circumbinary discs with radiative cooling and embedded planets.
- Kountal, M. et al.* (29 authors) 2019, AJ 157, 196. Close companions around young stars detected spectroscopically.
- Lehmer, B.D. et al.* (10 Authors) 2019, ApJS 243, 3. (1*ouxi) XB luminosity function scaling relations for local galaxies based on subgalactic modeling.
- Liu, B., Lai, D., Wang, Y.-H.* 2019, ApJ 881, 41. (8ad) BH and NS binary mergers in triple systems. II. Merger eccentricity and spin-orbit misalignment.
- Liu, H. et al.* (4 authors) 2019, MNRAS 487, 5335. Evolution of the hard X-ray photon index in BH XBs: hints for accretion physics.

Li, Y.-S., Chen, A., Yu, Y.-W. 2019, RAA 19, 115. Observational signature of a wind bubble environment for double NS mergers.

Li, Y., Shen, R.-F. 2019, ApJ 879, 31. (8ab) Polarization of kilonova emission from a BH-NS merger.

Lundquist, M.J. et al. (57 Authors) 2019, ApJL 881, L26. (1o) Searches after GWs using Arizona Observatories (SAGUARO): system overview and first results from LIGO/Virgo's third observing run.

Marchant, P. et al. (7 authors) 2019, ApJ 882, 36. (8ac) Pulsational pair-instability SNe in very close binaries.

Michaely, E., Perets, H.B. 2019, MNRAS, 484, 4711. (8abcd) Constraints on the common-envelope evolution process from wide triple systems.

Molina, E., del Palacio, S., Bosch-Ramon, V. 2019, A&A 629, A129. (8bd) A model for high-mass microquasar jets under the influence of a strong stellar wind.

Moody, M.S.L., Shi, J.-M., Stone, J.M. 2019, ApJ 875, 66. (8c) The mass distribution of galactic double NSs.

Müller, B. et al. (9 authors) 2019, MNRAS, 484, 3307. (8acd) 3-D simulations of neutrino-driven core-collapse SNe from low-mass single and binary star progenitors.

Mushtukov, A.A. et al. (5 authors) 2019, MNRAS, 484, 687. (8bd) Timing properties of ULX PSRs: optically thick envelopes and outflows.

Neunteufel, P., Yoon, S.-C., Langer, N. 2019, A&A 627, A14. (8cd) Evolution of helium star plus carbon-oxygen WD binary systems and implications for diverse stellar transients and hypervelocity stars.

Nishimura, O. 2019, PASJ 71, 42. Influence of bulk motion of an infalling plasma in line-forming regions on cyclotron line in accreting X-ray PSRs.

Nurmamat, N. et al. (6 authors) 2019, JApA 40, 32. Quark novae: an alternative channel for the formation of isolated millisecond PSRs.

Okuya, A., Fujii, Y., Ida, S. 2019, ApJ 880, 107. (8ab) Effects of a binary companion star on the habitability of tidally locked planets around an M-type host star.

Ou, J.-W. et al. (10 authors) 2019, MNRAS 487, 2455. Solving EBs with a solar-like pulsator via Kepler data.

Panther, F.H. et al. (8 authors) 2019, PASA 36, e031. SN1991bg-like SNe are associated with old stellar populations.

Perna, R., Lazzati, D., Farr, W. 2019, ApJ 875, 49. (1aio, 6b) Limits on electromagnetic counterparts of GW-detected binary BH mergers.

Pieringer, C. et al. (4 authors) 2019, MNRAS, 484, 3071. (7d) An algorithm for the visualization of relevant patterns in astronomical LCs tested in OGLE-III and STARLIGHT databases.

- Piersanti, L. et al.* (4 authors) 2019, MNRAS, 484, 950. (8acd) He-accreting WD: nucleosynthesis in the extreme binary system $1.02 + 0.30 M_{\odot}$.
- Pinto, L.D., Capuzzo-Dolcetta, R., Magni, G.* 2019, A&A 628, A82. (8b) Self-gravitating disks in binary systems: an SPH approach. I. Implementation of the code and reliability tests.
- Portilla-Revelo, B., Zuluaga, J.I.* 2019, MNRAS, 485, 522. (8a) Revisiting the dynamics of planets in binaries: evolutionary time-scales and the effect of early stellar evolution.
- Quast, M., Langer, N., Tauris, T.M.* 2019, A&A 628, A19. (8abcd) Mass transfer on a nuclear timescale in models of supergiant and ULXBs.
- Randall, L., Xianyu, Z.-Z.* 2019, ApJ 878, 75. (8ac) A direct probe of mass density near inspiraling binary BHs.
- Reichardt, T.A. et al.* (5 authors) 2019, MNRAS, 484, 631. (8abcd) Extending common envelope simulations from Roche lobe overflow to the nebular phase.
- Renzo, M. et al.* (9 authors) 2019, A&A 624, A66. (8c, 9) Massive runaway and walkaway stars.
- Rose, S.C., Naoz, S., Geller, A.M.* 2019, MNRAS 488, 2480. Companion-driven evolution of massive stellar binaries.
- Saladino, M.I., Pols, O.R.* 2019, A&A 629, A103. (8bd) The eccentric behaviour of windy binary stars.
- Saladino, M.I., Pols, O.R., Abate, C.* 2019, A&A 626, A68. Slowly, slowly in the wind: 3D hydrodynamical simulations of wind mass transfer and angular-momentum loss in AGB binary systems.
- Scepi, N., Dubus, G., Lesur, G.* 2019, A&A 626, A116. (8d) Magnetic wind-driven accretion in dwarf novae.
- Secunda, A. et al.* (8 authors) 2019, ApJ 878, 85. (8ac) Orbital migration of interacting stellar mass BHs in disks around supermassive BHs.
- Shevchenko, I.I. et al.* (5 authors) 2019, Astron. Lett. 45, 620. (8ab) Circumbinary planetary systems in the solar neighborhood: stability and habitability.
- Smallwood, J.L. et al.* (4 authors) 2019, MNRAS 486, 2919. Alignment of a circumbinary disc around an eccentric binary.
- Stephan, A.P. et al.* (9 authors) 2019, ApJ 878, 45. (8ac) The fate of binaries in the Galactic center: the mundane and the exotic.
- Stevenson, S. et al.* (7 authors) 2019, ApJ 882, 122. (8ad) The impact of pair-instability mass loss on the binary BH mass distribution.
- Takeda, N., Fukue, J.* 2019, PASJ 71, 70. Relativistic AD winds under relativistic radiation transfer.
- Townsley, D.M. et al.* (4 authors) 2019, ApJL 878, L38. (2dx) Double detonations with thin, modestly enriched He layers can make normal type-Ia SNe.

Tutukov, A.V., Fedorova, A.V. 2019, *Astron. Rep.* 63, 460. (8ac) Evolution of stars paired with intermediate-mass BHs.

Veres, P. et al. (7 authors) 2019, *ApJ* 882, 53. (8ad) Detection prospects of binary BH mergers from a Fermi-GBM follow-up.

Voisin, F.J. et al. (10 authors) 2019, *PASA* 36, e014. Connecting the ISM to TeV PWNe and PWN candidates.

Wang, S.-Q., Wang, L.-J., Dai, Z.-G. 2019, *RAA* 19, 63. The energy sources of superluminous SNe.

Wang, Y.-C. et al. (4 authors) 2019, *RAA* 19, 133. PSR candidate classification with deep convolutional neural networks.

Winters, J.G. et al. (9 authors) 2019, *AJ* 157, 216. Stellar multiplicity among red dwarfs within 25 pc.

Wong, T.L.S., Schwab, J. 2019, *ApJ* 878, 100. (8ac) Evolution of He star-WD binaries leading up to thermonuclear SNe.

Xu, X.-J., Yu, Z.-L., Li, X.-D. 2019, *ApJ* 878, 53. (2dx) The Fe line flux ratio as a diagnostic of the maximum temperature and the WD mass of CVs.

Yan, Y. 2019, *RAA* 19, 72. The symmetry energy and incompressibility constrained by the observations of glitching PSRs.

Yang, Y. et al. (6 authors) 2019, *PASP* 131, 064201. Classification of double NSs and correlation with orbital parameters.

Yungelson, L.R., Kuranov, A.G., Postnov, K.A. 2019, *MNRAS*, 485, 851. (8abd) Wind-accreting symbiotic XBs.

Yu, Y.-W. 2019, *ChAA* 43, 178. A brief review of kilonova (merger nova) researches.

Zhang, X. et al. (9 authors) 2019, *ApJ* 874, 121. (8a) General Screened Modified Relativity tests from comprehensive analysis of binary PSRs.

Collections of data

Abbott, B.P. et al. (1141 authors) 2019, *ApJ* 882, L24. Analysis of 10 binary BH merger events from the 1st and 2nd observing runs of Advanced LIGO/Virgo: GW150914, GW151012, GW151226, GW170104, GW170608, GW170729, GW170809, GW170814, GW170818, GW170823.

Abbott, B.P. et al. (1154 authors) 2019, *ApJ* 879, 10. Searches for GWs from known PSRs at two harmonics in 2015-2017 LIGO data. Erratum in 2019, *ApJ* 882, 73. A total of 222 PSRs examined, with no evidence of GW emission from any.

Aftab, N., Paul, B., Kretschmar, P. 2019, *ApJS* 243, 29. (2dx) X-ray reprocessing: through the eclipse spectra of HMXBs with XMM-Newton. V779 Cen (Cen X-3), QV Nor (4U 1538–522), V884 Sco (4U 1700–377), 2MASS J01170514–7326360 (SMC X-1), 1RXS J053246.1–662203 (LMC X-4), IGR

J16418–4532, IGR J16479–4514, IGR J17252–3616, IGR J18027–2016.

Ashley R.P. et al. (5 authors) 2019, MNRAS, 484, 5362. (1ao, 2ao) RV survey of 20 WD + M dwarf binaries shows evidence for bimodal orbital separations: WD 0023+388, WD 0303–007, WD 0354+463, WD 0430+136, WD 0752–146, WD 0812+478, WD 0908+226, WD 1001+203, WD 1037+512, WD 1051+516, WD 1133+358, WD 1333+487, WD 1339+606, WD 1433+538, WD 1436–216, WD 1458+171, WD 1504+546, WD 1517+502, WD 2257+162, WD 2317+268.

Barenfeld, S.A. et al. (9 authors) 2019, ApJ 878, 45. (1ai) The effect of binarity on circumstellar disk evolution. Disk systems in the upper Sco region with companions: 2MASS J15354856–2958551, J16014086–2258103, J16025123–2401574, J16062196–1928445, J16070211–2019387, J16102174–1904067, J16102857–1904469, J16113134–1838259, J16141107–2305362, J16153456–2242421, J16181618–2619080.

Cuevas-Otahola, B. et al. (6 authors) 2019, MNRAS, 484, 2514. (1ao, 5bc, 6ab, 7d) 1125 EBs in the QUEST low-latitude catalogue and the ELLISA LC simulator: 179 EA, 60 EB, and 886 EW.

Cunningham, J.M.C. et al. (5 authors) 2019, AJ 158, 106. (1ao, 2ai, 5cde) Solutions for seven ESBs from Kepler photometry and APOGEE spectroscopy: KIC 5285607 (2MASS J19390532+4027346), KIC 6864859 (2MASS J19292405+4223363), KIC 6778230 (2MASS J19282456+4215080), KIC 4285087 (2MASS J19463571+3919069), KIC 6449358 (2MASS J19353513+4149543), KIC 6131359 (2MASS J19370697+4126128), KIC 6781535 (2MASS J19321788+4216489).

de Ruiter, I. et al. (4 authors) 2019, MNRAS 485, 3834. (1x*, 5bi, 8c) A systematic study of the phase difference between QPO harmonics in BH XBs: V1487 Aql (GRS 1915+105), V821 Ara (GX 339-4), IL Lup (4U 1543–47), V381 Nor (XTE J1550–564), Nor X-1 (4U 1630–47), XTE J1650–500, GRO J1655–40, MAXI J1659–152, H 1743–322, XTE J1748–288, XTE J1752–223, Swift J1753.5–0127, XTE J1817–330, XTE J1859+226.

Escorza, A. et al. (15 authors) 2019, A&A 626, A128. Barium and related stars, and their WD companions. II. Main-sequence and subgiant stars: 12 And (HD 220117), η Ari (HD 13555), 13 Crt (HD 98991), V1119 Tau (HD 35296), θ UMa (HD 82328), ι Vir (HD 124850), HD 2454, HD 6434, HD 9529, HD 15306, HD 18853, HD 22589, HD 24864, HD 31732, HD 34654, HD 48565, HD 50264, HD 60532, HD 69578, HD 76225, HD 87080, HD 89948, HD 92545, HD 95241, HD 101581, HD 103840, HD 104342, HD 105671, HD 106191, HD 107574, HD 109490, HD 113402, HD 117288, HD 120620, HD 123585, HD 127392, HD 130255, HD 141804, HD 146800, HD 147609, HD 150862, HD 170149, HD 182274, HD 188985, HD 202400, HD 205156, HD 207585, HD 216219, HD 219899, HD 221531, HD 222349, HD 224621, BD+18°5215, BD–10°4311, BD–11°3853, BD–18°255, CD–62°1346.

Gandhi, P. et al. (5 authors) 2019, MNRAS, 485, 2642. (1ao, 4a, 6acd) Gaia DR2 distances and peculiar velocities for Galactic BH HMXBs: V1487 Aql (GRS 1915+105), V821 Ara (GX 339-4), BW Cir, V404 Cyg, V1357 Cyg (Cyg X-1), IL Lup (4U 1543–475), V616 Mon (1A 060–00), GU Mus (GS 1124–684), V381 Nor (XTE J1550–564), V2107 Oph (H 1705–250), V518 Per (GRO J0422+32), V4641 Sgr, V1033 Sco (GRO J1655–40), KV UMa (XTE J1118+480), MM Vel (GRS 1009–45), QZ Vul (GS 2000+251), V406 Vul (XTE J1859+226), Swift J1357.2–0933, XTE J1650–500, MAXI J1659–152, XTE J1752–223, Swift J1753.5–0127, XTE J1817–330, MAXI J1820+070.

Ghosh, A., Banerjee, I., Chakrabarti, S.K. 2019, MNRAS, 484, 5802. (1x, 5ij) Comparison of the time delay in LMXBs and HMXBs from spectral fits using a two-component advective flow solution: V821 Ara (GX 339-4), V1357 Cyg (Cyg X-1), H 1743–322, MAXI J1836–194.

Gill, S. et al. (29 authors) 2019, A&A 626, A119. (1ao, 2ao, 5cde) The EBLM project: VI. Mass and radius of five low-mass stars in F+M binaries discovered by the WASP survey.

Hachisu, I., Kato, M. 2019, ApJS 242, 18. (1o, 5c) LC analysis of 32 recent Galactic novae: distances and WD masses. Novae: V1663 Aql (Nova Aql 2005), V834 Car (Nova Car 2012), V1213 Cen (Nova Cen 2009), V1368 Cen (Nova Cen 2012), V962 Cep (Nova Cep 2014), V2659 Cyg (Nova Cyg 2014), PR Lup (Nova Lup 2011), QY Mus (Nova Mus 2008), V390 Nor (Nova Nor 2007), V2575 Oph (Nova Oph 2005), V2576 Oph (Nova Oph 2006#2), V2670 Oph (Nova 2008#1), V2676 Oph (Nova Oph 2012), V2677 Oph (Nova Oph 2012#2), V2944 Oph (Nova OPh 2015), V597 Pup (Nova Pup 2007), V5116 Sgr (Nova Sgr 2005#2), V5117 Sgr (Nova Sgr 2006#2), V5579 Sgr (Nova Sgr 2008), V5583 Sgr (Nova Sgr 2009#3), V5584 Sgr (Nova Sgr 2009#4), V5585 Sgr (Nova Sgr 2010), V5589 Sgr (Nova Sgr 2012#1), V5592 Sgr (Nova Sgr 2012#4), V5667 Sgr (Nova Sgr 2015#1), V5668 Sgr (Nova Sgr 2015#2), V1281 Sco (Nova Sco 2007#2), V1313 Sco (Nova Sco 2011#2), V1324 Sco (Nova Sco 2012), V1535 Sco (Nova Sco 2015), NR TrA (Nova TrA 2008), V459 Vul (Nova Vul 2007#2). Comparisons made with V1500 Cyg, V1668 Cyg, V959 Mon, V745 Sco, LV Vul, M31N 2008-12a.

Hajdu, T. et al. (6 authors) 2019, MNRAS, 485, 2562. (5abc, 6a, 9) Eclipse timing variation analysis of OGLE-IV EBs towards the Galactic bulge – I. 992 potential hierarchical triple system candidates.

Han, E., Muirhead, P.S., Swift, J.J. 2019, AJ 158, 111. (1ao, 2ade) Low-mass Kepler EBs appear to be consistent with evolutionary models: KIC 11922782 (2MASS J19440177+5013574), KIC 9821078 (2MASS J19071662+4839532, KIC7605600 (2MASS J19243616+4317070), KIC10935310 (2MASS J19513982+4819553).

Helminiak, K.G. et al. (8 authors) 2019, MNRAS, 484, 451. (1ao, 2ao, 5bcdegk) HIDES spectroscopy of bright detached EBs from the Kepler field – III. Spectral analysis, updated parameters and new systems: V2277 Cyg, FL Lyr, HD 188872, HD 190585, HD 225524, BD+47°2717A, T-Cyg1-00246, T-Lyr1-01013, TYC 3134-978-1, TYC 3146-1340-1, TYC 3561-922-1.

Jayasinghe, T. et al. (16 authors) 2019, MNRAS, 485, 961. (1ao, 5b, 6ab) ASAS-SN catalogue of variable stars in the southern TESS continuous viewing zone, including about 2400 new EBs.

Jorissen, A. et al. (7 authors) 2019, A&A 626, A127. (2ao) Barium and related stars and their WD companions: I. Giant stars. Orbits for ER Del, V420 Hya, V530 Lyr (HD 170970), ϕ Ori (HD 30959), 57 Peg (HD 218634), V4638 Sgr (HD 184185), 56 UMa (HD 98839), ϕ Vir (HD 104979), HD 7351, HD 18182, HD 40430, HD 50843, HD 51959, HD 53199, HD 65854, HD 101079, HD 119185, HD 123949, HD 134698, HD 183915, HD 189581, HD 196673, HD 199394, HD 211954, HD 215336, HD 288833, BD–21°2601, BD+31°4391, BD+79°156, CD–28°3719, CD–25°10393.

Kocián, R. et al. (30 authors) 2019, OEJV 197. Proceedings of the 50th Conference on Variable Stars: Z And, FO Aqr, CG Aur, V405 Aur, GU Boo, OY Car, V709 Cas, NS Cep, Z Cha, V974 Cyg, V2306 Cyg, AG Dra, EX Dra, YY Gem, V1323 Her, TT Hya, V345 Lac, V361 Lyr, RU Mon, AO Mon, V456 Oph, V2051 Oph, AG Peg, U Sge, YY Sgr, QS Vir, DR Vul, GJ 3236, HBHA 1704-05, NSVS 01286630, NSVS 02502726, NSVS 07453183, TYC 4246-751-1, TYC 4246-883-1.

Lapukhin, E.G. et al. (5 authors) 2019, PZP 19, No. 1 (1a, 5b) New variable stars in Perseus covering an area of $2^{\circ}3 \times 2^{\circ}3$ centered on $\alpha=02^{\text{h}}00^{\text{m}}$, $\delta=59^{\circ}00'$. Part I: 2MASS 01523716+5856271, 01523787+5906593, 01525736+5924128, 01542471+5806375, 01550686+5956116, 01553673+5806051,

01554562+5914448, 01571684+5809047, 01574428+6010049, 01584060+5833226, 02002726+5811506, 02034839+5838072, 02042874+5945477, 02045130+5910113, 02060139+5851318, 02065780+5820331, 02074006+5958080.

Li, K. et al. (8 authors) 2019, MNRAS 485, 4588. (1ao, 5abceg, 8ac) Statistics and the first photometric investigations of 10 totally eclipsing contact binaries: CT Ari (CRTS J020730.1+145623), OV Eri (1SWASP J050904.45-074144.4), V636 Ser (1SWASP J151144.56+165426.4), CRTS J003244.2+244707, CRTS J034705.9+211309, CRTS J053317.3+014049, CRTS J060855.6+622713, CRTS J151631.0+382626, 1SWASP J220235.74+311909.7, CRTS J232100.1+410736.

Martin, D. V. et al. (11 authors) 2019, A&A 624, A68. (2ao, 5d) The BEBOP RV survey for circumbinary planets. I. Eight years of CORALIE observations of 47 single-lined EBs and abundance constraints on the masses of circumbinary planets.

McAllister, M. et al. (17 authors) 2019, MNRAS 486, 5535. (1ao, 5abceg) Eclipse modelling of 15 CVs: GY Cnc, OY Car, V1258 Cen (CTCV J1300-3052), V713 Cep, Z Cha, DV UMa, IY UMa, PU UMa, SDSS J090103.94+480911.0, CRTS J043112.4-031452, CRTS SSS130413 J094551-194402, SDSS J100658.40+233724.4, SDSS J115207.00+404947.8, CRTS J140454.0-102702, SDSS J150137.22+550123.4, CRTS SSS100615 J200331-284941.

Neugent, K.F. et al. (4 authors) 2019, ApJ 875, 124. (1aio, 6b) Binary red supergiants. II. Discovering and characterizing B-type companions. A total of 63 RSG+B in M31 and M33 confirmed.

Paterson, K. et al. (8 authors) 2019, MNRAS 486, 2422. (1ao, 5abceg) High-speed photometry of faint CVs - IX. Targets from multiple transient surveys: MASTER OT J001400.25-561735.0, CRTS CSS111231 J035318-034847, CRTS SSS111126 J052210-350530, CRTS CSS131106 J052412+004148, CRTS SSS111213 J055349-525045, CRTS MLS101226 J072033+172437, CRTS SSS130413 J094551-194402, CRTS SSS120402 J134015-350512, CRTS CSS100520 J214426+222024, MASTER OT J222049.51-740240.9, ASASSN-14eq, ASASSN-14hq, ASASSN-14hv, ASASSN-14ik, ASASSN-14ka, ASASSN-15ev, ASASSN-15fm, ASASSN-15fo, ASASSN-15hm, ASASSN-15hn, ASASSN-15kw, ASASSN-15ls, ASASSN-15pb, ASASSN-15pw, ASASSN-17fz.

Qian, S.-B. et al. (10 authors) 2019, RAA 19, 64. (2abc, 5dgh, 6a, 9) More than two hundred and fifty thousand SB or variable star candidates (SBVCs) discovered by LAMOST. Candidate C134624.29+333921.2 is a detached EB.

Reig, P., Kylafis, N.D. 2019, A&A 625, A90. (2dx) Inclination effects on the X-ray emission of Galactic BH binaries: V821 Ara (GX 339-4), BW Cir (GS 1354-645), V1357 Cyg (Cyg X-1), IL Lup (4U 1543-475), V381 Nor (XTE J1550-564), V1033 Sco (GRO J1655-40), KV UMa (XTE J1118+480), V406 Vul (XTE J1859+226), MAXI J1543-564, XTE J1650-500, MAXI J1659-152, H 1743-322, XTE J1752-223, Swift J1753.5-0127, XTE J1817-330, MAXI J1836-194, Swift J1842.5-1124.

Richards, T. et al. (5 authors) 2019, OEJV 198. (5ab) Southern EB minima and light elements: S Ant, MR Aps, R Ara, V610 Ara, V878 Ara, V454 Car, V462 Car, V625 Car, BH Cen, V701 Cen, V752 Cen, V757 Cen, V759 Cen, V901 Cen, V1129 Cen, Z Cha, RW Dor, YY Eri, V Gru, RV Gru, YY Gru, SZ Hor, ST Ind, CO Ind, CR Ind, CT Ind, GG Lup, TY Men, DI Mic, η Mus, TU Mus, TV Mus, TW Mus, BS Mus, EZ Oct, VV Ori, IY Pav, V401 Pav, AD Phe, AU Phe, BL Phe, BM Phe, BQ Phe, GZ Pup, HI Pup, V621 Pup, UX Ret, CP Scl, V954 Sco, V1055 Sco, VY Sex, V2509 Sgr, V3792 Sgr, QW Tel, AQ Tuc, DX Tuc, V362 Vel, HD 271453 (NSV 2569), HV 11909 (NSV 1000), NSV 455, NSV 1389.

Shahaf, S., Mazeh, T. 2019, MNRAS 487, 3356. (2a, 5de, 9) Study of the mass-ratio distribution of 116 SBs – II. The boundaries of the brown-dwarf desert as seen with the APOGEE SBs.

Shenar, T. et al. (14 authors) 2019, A&A 627, A151. (1ao, 2aou, 5dc) The WR binaries of the nitrogen sequence in the LMC. Spectroscopy, orbital analysis, formation, and evolution: BAT99 6, BAT99 14, BAT99 17, BAT99 19, BAT99 21, BAT99 27, BAT99 29, BAT99 32, BAT99 42, BAT99 43, BAT99 49, BAT99 59, BAT99 60, BAT99 54, BAT99 71, BAT99 72, BAT99 77, BAT99 79, BAT99 80, BAT99 92, BAT99 95, BAT99 103, BAT99 107, BAT99 113, BAT99 116, BAT99 119, BAT99 126, BAT99 129.

Sperauskas, J., Deveikis, V., Tokovinin, A. 2019, A&A 626, A31. Spectroscopic orbits of nearby stars: HD 6440B, HD 8691, HD 225220 (HIP 374), BD+13°5195B, BD+33°4827D, HIP 96, HIP 375, HIP 1412, HIP 3428, HIP 5110A.

Takeda, Y. et al. (5 authors) 2019, MNRAS, 485, 1067. (2abc, 5bdeghk) Compositional differences between the component stars of eclipsing CBs showing chemical peculiarities: β Aur, WW Aur, AR Aur, YZ Cas, RR Lyn.

von Boetticher, A. et al. (31 authors) 2019, A&A 625, A150. (1ao, 2ao, 5cde) The EBLM project. V. Physical properties of ten convective, very-low-mass stars (EB components).

Wallace, J.J. et al. (4 authors) (1ao, 6b) A search for variable stars in the globular cluster M4 with K2. Several EBs found, including two detached, several EW types and one XB candidate.

Xie, Y.-W. et al. (15 authors) 2019, RAA 19, 103. (1r, 7d) Flux density measurements for 32 PSRs in the 20 cm observing band.

Xu, X. et al. (6 authors) 2019, ApJ 882, 164. (2dx) Massive WDs in the Galactic center: Chandra X-ray spectroscopy of CVs (14 systems).

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