KAREEM EL-BADRY

Division of Physics, Math, and Astronomy kelbadry@caltech.edu

California Institute of Technology kareemelbadry.github.io

RESEARCH INTERESTS

binary stars, stellar-mass black holes, neutron stars, white dwarfs, wide-field surveys; near-field cosmology, galactic archaeology, globular clusters; galaxy formation, low-mass galaxies, stellar feedback

EDUCATION

Ph.D., Astrophysics, University of California, Berkeley	2021
Thesis: Binary stars across the Milky Way: Probes of star formation and evolution	
M.A., Astrophysics, University of California, Berkeley	2018
B.S., Astronomy & Physics, summa cum laude, Yale University	2016

RESEARCH POSITIONS

Assistant Professor, California Institute of Technology	2023-
Adjunct Scientist, MPIA, Heidelberg	2023-
Junior Fellow, Harvard Society of Fellows	2021 - 2023
ITC Fellow, Harvard-Smithsonian Center for Astrophysics	2021 - 2023
Postdoctoral Fellow, recurring summer appointment, MPIA, Heidelberg	2021 - 2023
Graduate Student, University of California, Berkeley	2016 - 2021
Kavli Summer Research Fellow, CCA, NYC	2018
Summer Visiting Researcher, MPIA, Heidelberg	2017 - 2020
Summer Undergraduate Research Fellow, Caltech	2015
Undergraduate Research Assistant, Yale	2015 - 2016
Dean's Summer Research Fellow, Yale	2014

Honors & Awards

New Horizons Solvay Lecturer in Physics	2025
IAU Ph.D. Prize, Stars and Stellar Physics division	2022
Mary Elizabeth Uhl Dissertation Prize, Berkeley	2021
Outstanding Graduate Student Instructor Award, Berkeley	2021
Robert J. Trumpler Graduate Student Excellence Award, Berkeley	2020
CCAPP Price Prize in Cosmology and AstroParticle Physics	2018
NSF Graduate Research Fellowship	2016 - 2021
Berkeley Fellowship	2016 - 2018
Hellman Award for Graduate Study	2016 - 2018
George Beckwith Prize in Astronomy, Yale	2016
Phi Beta Kappa, Yale	2015
Jerry Inskeep Memorial Scholarship, Yale	2014

Grants

JWST General Observer Grant, NASA/STScI, PI, Total: \$80,000 JWST-GO-04979: Uncovering the cold donors of AM CVn binaries	2025-2027
HST General Observer Grant, NASA/STScI, PI, Total: \$88,306 HST-GO-17441: UV spectroscopy of runaways from thermonuclear supernovae	2024-2026
Astronomy and Astrophysics Research Grant, NSF, PI, Total: \$475,345 NSF-AST-2307232: Dormant black holes and neutron stars in stellar binaries	2023-2026
HST General Observer Grant, NASA/STScI, PI, Total: \$30,000 HST-GO-17202: Does MWC 656 host a black hole or a stripped helium star?	2023-2025

HST General Observer Grant, NASA/STScI, PI, Total: \$48,171

HST-GO-17200: A census of massive binaries and LBVs in the Whirlpool Galaxy

HST General Observer Grant, NASA/STScI, CO-I, subaward: \$23,181

2023 - 2025

2023 - 2025

HST-GO-17200: Establishing a 1% anchor for the Population II Distance Ladder with HST

AWARDED TELESCOPE TIME (SUMMARY)

HST	19 orbits $(PI) + 86$ orbits $(CO-I)$
JWST	11 hours (PI) + 71 hours (CO-I)
Keck 10m	12 nights (PI) + 25 nights (CO-I)
Magellan 6.5m	9 nights (PI) + 3 nights (CO-I)
VLT 8.2m	39 hours (PI)
LBT 2×8.4 m	3 nights (PI) + 3 nights (CO-I)
Gemini 8.1m	23 hours (PI)
Palomar Hale 200 inch	5 nights (PI) + 25 nights (CO-I)
MPG/ESO La Silla 2.2m	55 nights (PI) + 50 nights (CO-I)
Tillinghast 1.5m FLWO	30 nights (PI) + 10 nights (CO-I)
Las Cumbres Observatory 2×1 m	1.5 nights (PI)
Lick Shane 3m	26 nights (PI)
Lick APF 2.4m	15 nights (CO-I)
Nordic Optical Telescope 2.6m	12 nights (CO-I)
NTT 3.6m	3 nights (CO-I)
McDondald 2.7m Harlan J. Smith Telescope	5 nights (CO-I)
Very Large Array	4 hours (DDT; CO-I)
Green Bank Telescope	12 hours (CO-I)
MeerKAT	4 hours (DDT; CO-I)
Chandra	20ks (DDT; PI) + 20ks (DDT; CO-I)

Observing Experience

Public data – significant experience with data from Gaia, Kepler/K2, TESS, LAMOST	C, SDSS, ZTF
Lick Shane telescope, KAST Spectrograph – 28 nights	2020-2021
Keck DEIMOS – 2.5 nights	2017
Keck ESI – 7 nights	2015, 2016, 2021-2023
Keck LRIS – 3 nights	2021-2023
Keck HIRES – 1 night	2022
Palomar Hale telescope, DBSP – 3 nights	2021-2023
Palomar Hale telescope, Wide-Field IR Camera – 1 night	2015
WIYN, Hydra Multi-Fiber Spectrograph – 2 nights	2014
Arecibo, L-Band HI – 2 nights	2013, 2014

Journal Referee

A&A, A&AL, ApJ, ApJL, MNRAS, MNRASL, SCPMA, Nature, Nature Astronomy, OJAp 38 papers; 2017 –

Collaboration Memberships

Gaia Data Processing and Analysis Consortium (CU4: non-single stars)	2024 -
Sloan Digital Sky Survey (binaries & compact objects working groups)	2021 -

STUDENT MENTORING

Soumyadeep Bhattacharjee (Caltech PhD student)	2024-
Cheyanne Shariat (Caltech PhD student)	2024-
Domani Sharkey (Caltech undergrad)	2024-
Lisa Blomberg (Caltech PhD student)	2023-

Antonio Rodriguez (Caltech PhD student) Natsuko Yamaguchi (Caltech PhD student) Pranav Nagarajan (Caltech PhD student) Maude Gull (Berkeley PhD student) Johanna Müller-Horn (MPIA PhD student) Rhys Seeburger (MPIA PhD student) Evan Portnoi (Caltech undergrad) Umran Koca (Caltech undergrad) Jesse Han (Harvard PhD student) Vedant Chandra (Harvard PhD student) Silvia Almada (MPIA masters student) Nick Choksi (Berkeley undergrad; now Berkeley PhD student)	$2022 - \\ 2022 - \\ 2020 - \\ 2022 - \\ 2023 - \\ 2021 - \\ 2023 - 2024 \\ 2023 - 2024 \\ 2022 - 2023 \\ 2021 - 2023 \\ 2020 - 2022 \\ 2018 - 2019$
Teaching Experience	
Instructor, Ay 03, Structure and Evolution of Galaxies, Caltech Instructor, Ay 03, Automating Discovery in the Universe, Caltech Instructor, Ay 123, Stellar Structure and Evolution, Caltech Graduate Student Instructor, Astro 128, Astronomy Data Lab, University of California, Berkeley Course Designer, Astro 128, Astronomy Data Lab, University of California, Berkeley Co-Instructor, Astro 375, Graduate Pedagogy, University of California, Berkeley Sole Instructor, Stellar Physics, Hyeonpung High School, Daegu, South Korea Graduate Student Instructor, Astro 160, Stellar Physics, University of California, Berkeley Graduate Student Instructor, Astro 7A, Introduction to Astronomy, University of California, Berkeley Graduate Student Instructor, Astro C12, The Planets, University of California, Berkeley Tutor & Grader, Math 120, Multivariable Calculus, Yale Tutor, Math 111, College Algebra, Umpqua Community College	SP2025 SP2024 WI2024, FA2024 2019, 2020, 2021 2018, 2019, 2020 2019, 2020 2019 2018 seley 2017 2017 2013 - 2016 2013
Talks (since 2017)	
Astronomy Colloquium, University of Texas, Austin, TX Review talk, Multimessenger binary mergers meeting, Aspen, CO Review talk, Lorentz center workshop on stripped stars, Leiden, Netherlands Talk, EUROWD24, Barcelona, Spain Talk, SDSS-V collaboration meeting, Las Cruces, NM Astronomy Colloquium, University of Washington, Seattle, WA Talk, 20 Years of the ITC conference, Cambridge, MA LAS Astrophysics Seminar, Princeton, NJ Caltech Astronomy Colloquium, Pasadena, CA UCSC Astronomy Colloquium, Santa Cruz, CA Sydney Institute for Astronomy seminar, Sydney, AU Astrophysics colloquium, Carnegie Observatories, Pasadena, CA Review talk, Massive Triples, Binaries and Mergers, Leuven, Belgium Review talk, Lorentz center workshop on stellar black holes, Leiden, Netherlands Astrophysical sciences division colloquium, NASA/Goddard Astrophysics colloquium, Boston University Astrophysics colloquium, Cornell University Astrophysics colloquium, University of Pennsylvania Astrophysics colloquium, University of Michigan Talk, KTTP white dwarf conference, Santa Barbara, CA Astrophysics colloquium, Dunlap Institute, University of Toronto Astrophysics colloquium, Yale University Talk, ZTF theory network meeting, CA Talk, EUROWD22, Tübingen, Germany Galaxy coffee, Max Planck Institute for Astronomy, Heidelberg, Germany Astrophysics colloquium, Shanghai Astronomical Observatory	2024 2024 2024 2024 2024 2024 2024 2024 2024 2023 2022
Astrophysics colloquium, University of California, Los Angeles IAU working group on active B stars seminar Albert Einstein Institute seminar, Potsdam, Germany	2022 2022 2022

UCSD/SDSU joint colloquium, San Diego	2021
Harvard Society of Fellows lunch talk, Harvard University	2021
Stellar Astrophysics Center seminar, Aarhus University, Aarhus, Denmark	2021
Astrophysics colloquium, Massachusetts Institute of Technology	2021
Institute of Theory and Computation colloquium, Harvard University	2021
Königstuhl colloquium, Max Planck Institute for Astronomy, Heidelberg, Germany	2021
Astrophysics colloquium, CIERA center, Northwestern University	2021
Astronomy seminar, University of Warwick, UK	2021
Lunch talk, University of California, Berkeley	2021
Astronomy colloquium, University of California, Berkeley	2021
Astronomy colloquium, California Institute of Technology	2021
Astronomy colloquium, University of Chicago	2021
Physics colloquium, University of Utah	2021
Lunch talk, University of California, Berkeley	2020
Tea talk, California Institute of Technology	2020
CIERA seminar, Northwestern University	2020
Summer astrophysics colloquium, Princeton University	2020
Galaxy coffee, Max Planck Institute for Astronomy, Heidelberg, Germany	2020
Lunch talk, University of California, Berkeley	2020
Astronomy seminar, Center for Computational Astrophysics, NYC	2020
Talk, ZTF theory meeting	2020
Astronomy seminar, University of Chicago	2019
Tea talk, Kavli Institute for Particle Astrophysics and Cosmology, Stanford University	2019
Lunch talk, University of California, Berkeley	2019
Astronomy seminar, Boston University	2019
Galaxies and cosmology seminar, Center for Astrophysics, Harvard University	2019
Tea talk, California Institute of Technology	2019
Invited talk, The Milky Way 2019: LAMOST and other Leading Survey meeting, Yichang, China	2019
Astronomy seminar, Charles University, Prague, Czech Republic	2019
Contributed talk, Universe of Binaries meeting, Telč, Czech Republic	2019
Contributed talk, CosmoDwarfs meeting, Durham, UK	2019
Galaxy coffee, Max Planck Institute for Astronomy, Heidelberg, Germany	2019
Lunch talk, University of California, Berkeley	2019
FLASH seminar, UC Santa Cruz	2019
Cosmology seminar, UC Davis	2019
Invited talk, Lorentz Center workshop on globular clusters, Leiden, Netherlands	2019
Invited talk, Near/Far workshop, Napa, CA	2018
Lunch talk, University of California, Berkeley	2018
Grad student+postdoc seminar, University of California, Berkeley	2018
CCAPP Price Prize colloquium, Ohio State University	2018
Invited talk, Galactic angular momentum focus group, IAU, Vienna, Austria	2018
Contributed talk, Kavli Summer Program in Astrophysics, Center for Computational Astrophysics, NYC	2018
Lunch talk, Center for Computational Astrophysics, NYC	2018
Galaxy coffee, Max Planck Institute for Astronomy, Heidelberg, Germany	2018
Galaxy lunch, Yale University	2018
Grad student+postdoc seminar, University of California, Berkeley	2018
Lunch talk, University of California, Berkeley	2018
Invited talk, Near/Far workshop, Napa, CA	2017
Lunch talk, University of California, Berkeley	2017
SFB seminar, ARI, Heidelberg, Germany	2017
Galaxy coffee, Max Planck Institute for Astronomy, Heidelberg, Germany	2017
Contributed poster, Galaxy-Halo Connection Workshop, KITP	2017
Grad student+postdoc seminar, University of California, Berkeley	2017
Lunch talk, University of California, Berkeley	2017
GalForm seminar University of California Berkeley	2017

- h-index: 46 (all papers), 24 (first-author papers)
- citations: 5700+ (all papers), 2400+ (first-author papers)
- *: student papers for which I was the primary advisor
- 130. Lam, C. Y., **El-Badry, K.**, Simon, J. D., 2024, "A Fast, Analytic Empirical Model of the *Gaia* Data Release 3 Astrometric Orbit Catalog Selection Function", arXiv:2411.00654, ApJ, submitted.
- 129. Galarza, J. Y., Lorenzo-Oliveira, D., Ferreira, T., Reggiani, H., Behmard, A., Simon, J. D., Martioli, E., Lopez-Valdivia, R., de Almeida, L., Jofre, E., **El-Badry, K.**, 2024, "HIP 8522: A puzzling young solar twin with the lowest detected lithium", arXiv:2410.17590, ApJ, submitted.
- 128. Gull, M., Weisz, D. R., El-Badry, K., Henneco, J., Savino, A., Durbin, M., Choi, Y., Cohen, R., Cole, A. A., Correnti, M., Dalcanton, J. J., Gilber, K. M., Goldman, S. R., Guhathakurta, P., McQuinn K. B. W., Newman, M. J. B., Skillman, E. D., Williams, B. F., 2024, "A low metallicity massive contact binary star system candidate in WLM identified by Hubble and James Webb space telescope imaging", arXiv:2410.16393, ApJ, submitted.
- 127. * Yamaguchi, N. and **El-Badry, K.**, 2024, "A search for self-lensing binaries with TESS and constraints on their occurrence rate", arXiv:2410.13939, PASP, submitted.
- 126. * Müller-Horn, J., **El-Badry, K.**, Rix, H.-W., Shenar, T., Seeburger, R., Villasenor, J., Bodensteiner, J., Latham, D. W., Bieryla, A., Buchhave, L. A., Isaacson, H., Howard, A. W., 2024, "Be star in the making: the stripped-star binary HIP 15429", A&A, submitted.
- 125. Bhattacharjee, S., Kulkarni, S. R., Kong, A. K. H., Tam M. S., Bond H. E., El-Badry, K., Caiazzo, I., Graham, M. J., Rodriguez, A. C., Zeimann, G. R., Fremling, C., Drake, J. A., Werner, K., Rodriguez, H., Prince, T. A., Laher, R. R., Chen, T. X., Riddle, R., 2024, "Variability of Central Stars of Planetary Nebulae with the Zwicky Transient Facility. I. Methods, Short-Timescale Variables, Binary Candidates, and the Unusual Nucleus of WeSb 1", arXiv:2410.03589, PASP, submitted.
- 124. **El-Badry, K.,** Lam, C., Holl, B., Halbwachs, J. L., Rix, H.-W., Mazeh, T., Shahaf, S., 2024, "A generative model for *Gaia* astrometric orbit catalogs: selection functions for binary stars, giant planets, and compact object companions", arXiv:2411.00088, OJAp, 7, 105.
- 123. * Rodriguez, A. C., El-Badry, K., Suleimanov, V., Pala, A. F., Kulkarni, S. R., Gaensicke, B., Mori, K., Rich, M., Sarkar, A., Bao, T., Lopes de Oliveira, R., Ramsay, G., Szkody, P., Graham, M., Prince, T. A., Caiazzo, I., Vanderbosch, Z. P., van Roestel, J., Das, K. K., Qin, Y-.J., Kasliwal, M. M., Wold, A., Groom, S. L., Reiley, D., Riddle, R., 2024, "Cataclysmic Variables and AM CVn binaries in SRG/eROSITA + Gaia: Volume limited samples, X-ray luminosity functions, and space densities", arXiv:2408.16053, PASP, submitted.
- 122. * Blomberg, L., **El-Badry, K.,** Breivik, K., 2024, "The companion mass distribution of post common envelope hot subdwarf binaries: evidence for boosted and disrupted magnetic braking?", arXiv:2408.15334, PASP, submitted.
- 121. van Roestel, J., Rodriguez, A. C., Szkody, P., Brown, A. J., Caiazzo, I., Drake, A., **El-Badry, K.,** Prince, T., Rich, R. M. R., Neill, J. D., Vanderbosch, Z., Bellm, E. C., Dekany, R., Feinstein, F., Graham, M., Groom, S. L., Helou, G., Kulkarni, S. R., du Laz, T., Mahabal, A., Sharma, Y., Sollerman, J., Wold, A., 2024, "Wind accreting magnetic white dwarfs in post common envelope binaries discovered with the Zwicky Transient Facility", A&A, submitted.
- 120. Werner, K., El-Badry, K., Gaensicke, B., Shen, K. J., 2024, "Ultraviolet spectroscopy of the supernova Ia hypervelocity runaway white dwarf J0927-6335", arXiv:2408.08397, A&A, 689, 6.
- 119. * Nagarajan, P., **El-Badry, K.**, 2024, "Validation of *Gaia* DR3 orbital and acceleration solutions with hierarchical triples", arXiv:2407.16760, PASP, 136, 094203.
- 118. Shariat, C, Naoz, S., **El-Badry, K.**, Rodriguez, A. C., Hansen, B. M. S., Angelo, I., Stephan, A., 2024, "Once a triple, not always a triple: the evolution of hierarchical triples that yield merged inner binaries", arXiv:2407.06257, ApJ, submitted.
- 117. Bhat, A., Bauer, E. B., Pakmor, R., Shen, K. J., Caiazzo, I., Rajamuthukumar, A. S., **El-Badry, K.**, Kerzendorf, W. E., 2024, "Supernova shocks cannot explain the inflated state of hypervelocity runaways from white dwarf binaries", arXiv:2407.03424, A&A, in press.
- 116. * Nagarajan, P., El-Badry, K, Lam, C., Reggiani, H., 2024, "The symbiotic X-ray binary IGR J16194-2810: a window on the future evolution of wide neutron star binaries from Gaia", arXiv:2405.17560, PASP, 136, 4202.

- 115. Galiullin I., Rodriguez, A. C., El-Badry, K., Szkody, P., Anand, A., van Roestel, J., Sibgatullin, A., Dodon, V., Tyrin, N., Caiazzo, I., Graham, M. J., Laher, R. R., Kulkarni, S. R., Prince, T. A., Riddle, R., Vanderbosch, Z. P., Wold, A., 2024, "Searching for new cataclysmic variables in the Chandra source catalog", arXiv:2408.00078, A&A, 690, 374.
- 114. * Yamaguchi, N., **El-Badry, K.,** Rees, N., Shahaf, S., Mazeh, T., Andrae, R., 2024, "Wide post-common envelope binaries from *Gaia*: orbit validation and formation models", arXiv:2405.06020, PASP, 136, 8.
- 113. *Yamaguchi, N., El-Badry, K., Ciardi, D. R., Latham, D. W., Masuda, K., Bieryla, A., Clark, C. A., Condon, S. S., 2024, "No longer impossible: the self-lensing binary KIC 8145411 is a triple", arXiv:2405.00780, PASP, 136, 4201.
- 112. El-Badry, K., Rix, H.-W., Latham, D. W., Shahaf, S., Mazeh, T., Bieryla, A., Buchhave, L. A., Andrae, R., Yamaguchi, N., Isaacson, H., Howard, A. W., Savino, A., Ilyin, I. V., 2024, "A population of neutron star candidates in wide orbits from Gaia astrometry", arXiv:2405.00089, OJAp, 7, 58.
- 111. **El-Badry, K.**, "On the formation of a 33 M_{\odot} black hole in a low-metallicity binary", arXiv:2404.13047, OJAp, 7, 38.
- 110. Sherman, M. B., Ravi, V., El-Badry, K., Sharma, K., Ocker, S. K., Kosogorov, N., Connor, L., Faber, J. T., 2024, "Searching for magnetar binaries disrupted by core-collapse supernovae", arXiv:2404.05135, MNRAS, 531, 2379.
- 109. Burdge, K., El-Badry, K., Kara, E., Canizares, C., Chakrabarty, D., Frebel, A., Millholland, S., Rappaport, S., Simcoe, R., Vanderburg, A. 2024, "The black hole low mass X-ray binary V404 Cygni is part of a wide hierarchical triple, and formed without a kick", arXiv:2404.03719, Nature, in press.
- Seeburger, R., Rix, H.-W., El-Badry, K., Xiang, M., Fouesneau, M., 2024, "Autonomous disentangling for spectroscopic surveys", MNRAS, 530, 1935S, arXiv:2405.19391.
- 107. El-Badry, K., "Gaia's binary star renaissance", 2024, arXiv:2403.12146, New Astronomy Reviews, 98, 6.
- 106. Zhang, K., Zang, W., El-Badry, K., Lu, J. R., Bloom, J. S., Agol, E., Gaudi, S. B., Konopacky, Q., LeBaron, N., Mao, S., Terry, S., 2024, "An Earth-mass planet and a brown dwarf orbiting a white dwarf", arXiv:2409.02157, Nature Astronomy, in press.
- 105. **El-Badry, K.**, Simon, J. D., Reggiani, H., Rix, H.-W., Latham, D. W., Beiryla, A., Buchhave, L. A., Shahaf, S., Mazeh, T., Chakrabarti, S., Guhathakurta, P., Ilyin, I. V., 2024, "A $1.9\,M_{\odot}$ neutron star candidate in a 2-year orbit", arXiv:2402.06722, OJAp, 7, 27.
- 104. * Nagarajan, P., El-Badry, K., Triaud, A. H. M. J., Baycroft, T. A., Latham, D., Bieryla, A., Buchhave, L. A., Rix, H.-W., Quataert, E., Howard, A., Isaacson, H., Hobson, M. J., 2024, "ESPRESSO observations of Gaia BH1: high-precision orbital constraints and no evidence for an inner binary", arXiv:2312.05313, PASP, 136, 4202.
- 103. Galiullin, I., Rodriguez, A. C., Kulkarni, S. R., Sunayev, R., Gilfanov, M., Bikmaev, I., Yungelson, L., van Roestel, J., Gänsicke, B. T., Khamitov, I., Szkody, P., El-Badry, K., Suslikov, M., Prince, T. A., Buntov, M., Caizzo, I., Gorbachev, M., Graham, M. J., Gumerov, R., Irtuganov, E., Laher, R. R., Medvedev, P., Riddle, R., Rusholme, B., Sakhibullin, N., Sklyanov, A., Vanderbosch, Z. P., 2024, "A joint SRG/eROSITA + ZTF search: Discovery of a 97-min period eclipsing cataclysmic variable with evidence of a brown dwarf secondary", arXiv:2401.04178, MNRAS, 528, 576.
- 102. * Rodriguez, A. C., Cendes, Y., **El-Badry, K.**, Berger, E., 2023, "No X-rays or radio from the nearest black holes and implications for future searches", arXiv:2311.05685, PASP, 136, 4203.
- 101. Arseneau, S., Chandra, V., Hwang, H.-C., Zakamska, N. L., Pallathadka, G. A., Crumpler, N. R., Hermes, J.J., El-Badry, K., Rix, H.-W., Stassun, K. G., Gaensicke, B. T., Brownstein, J. R., Morrison, S., 2023, "Measuring the mass-radius relation of white dwarfs using wide binaries", arXiv:2310.19866, ApJ, 963, 17.
- 100. Werner, K., Reindl, N., Rauch, T., **El-Badry, K.**, Bedard, A., 2024, "The photospheres of the hottest fastest stars in the Galaxy", arXiv:2311.13388, A&A, 26A, 682.
- 99. Pallathadka, G. A., Chandra, V., Zakamska, N. L., Hwang, H.-C., Zenati, Y., Hermes, J., **El-Badry, K.**, Gaensicke, B., Morrison, S., Crumpler, N. R., Arseneau, S., 2023, "Discovery of a proto-white dwarf with a massive unseen companion", arXiv:2310.16313, ApJ, 968, 42.

- 98. Belloni, D., Schreiber, M. R., Moe, M., **El-Badry, K.**, Shen, K. J., 2023, "Evidence for saturated and disrupted magnetic braking from samples of detached close binaries with M and K dwarfs", arXiv:2311.04309, A&A, 682, 33.
- 97. * Yamaguchi, N., **El-Badry, K.,** Fuller, J., Latham, D. W., Cargile, P. A., Mazeh, T., Shahaf, S., Bieryla, A., Buchhave, L. A., Hobson, M., "Wide post-common envelope binaries containing ultramassive white dwarfs: evidence for efficient envelope ejection in massive AGB stars", arXiv:2309.15905, MNRAS, 527, 11719.
- 96. Shahaf, S., Hallakoun, N., Mazeh, T., Ben-Ami, S., Rekhi, P., El-Badry, K., Toonen, S., 2023, "Triage of the Gaia DR3 astrometric orbits. II. A census of white dwarfs", arXiv:2309.15143, MNRAS, 529, 3729.
- 95. Wu, Z., Dong, S., Yi, T., Liu, Z., El-Badry, K., Gould, A., Christie, G. W., de Almeida, L., Monard, L. A. G., McCormick, J., Chen H., Huang, Y., Liu, C., Merand, A., Mroz, P., Shangguan, J., Udalski, A., Woillez, J., Zhang, H., 2023, "Gaia22dkvLb: A microlensing planet potentially accessible to radial-velocity characterization", arXiv:2309.03944, AJ, 168, 62.
- 94. Miller, D. R., Caiazzo, I., Heyl, J., Richer, H. B., **El-Badry, K.,**, Rodriguez, A. C., Vanderbosch, Z. P., van Roestel, J., 2023, "An Extremely Massive White Dwarf Escaped From the Hyades Star Cluster", arXiv:2310.03204, ApJL, 956, 41.
- 93. El-Badry, K., Burdge, K., van Roestel, J., Rodriguez, A. C., 2023, "A transiting brown dwarf in a 2 hour orbit", arXiv:2307.15729, OJAp, 6, 33.
- 92. Rodriguez, A. C., Galiullin, I., Gilfanov, M., Kulkarni, S. R., Khamitov, I., Bikmaev, I., van Roestel, J., Yungelson, L., El-Badry, K., Sunayev, R., Prince, T. A., Buntov, M., Caiazzo, I., Drake, A., Gorbachev, M., Graham, M. J., Gumerov, R., Irtuganov, E., Laher, R. R., Masci, F. J., Medvedev, P., Purdum, J., Sakhibullin, N., Sklyanov, A., Smith, R., Szkody, P., Vanderbosch, Z. P., 2023, "SRGeJ045359.9+622444: A 55-min Period Eclipsing AM CVn Discovered from a Joint SRG/eROSITA + ZTF Search", arXiv:2306.13133, ApJ, 954, 63.
- 91. El-Badry, K., Shen, J. K., Chandra, V., Bauer, E., Fuller, F., Strader, J., Chomiuk, L., Naidu, R., Caiazzo, I., Rodriguez, A. C., Nagarajan, P., Natsuko, Y., Vanderbosch, Z. P., Roulston, B. R., Gaensicke, B., Han, J. J., Burdge, K. B., Filippenko, A. V., Brink, T. G., Zheng, W., 2023, "The fastest stars in the Galaxy", arXiv:2306.03914, OJAp, 6, 28.
- 90. * Yamaguchi, N., El-Badry, K., Rodriguez, A. C., Gull, M., Roulston, B., Vanderbosch, Z. P., 2023, "Sodium enhancement in evolved cataclysmic variables", arXiv:2304.13750, MNRAS, 524, 740.
- 89. * Nagarajan, P., **El-Badry, K.**, Rodriguez, A. C., van Roestel, J., Roulston, B., 2023, "Spectroscopic follow-up of black hole and neutron star candidates in ellipsoidal variables from Gaia DR3", arXiv:2304.07324, MNRAS, 524, 4367.
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- 5. Lam, C., et al., including **El-Badry, K.**, 2023, "Roman CCS White Paper: Characterizing the Galactic population of isolated black holes", arXiv:2306.12514
- 4. Terry, S., et al., including El-Badry, K., 2023, "The Galactic Center with Roman", arXiv:2306.11784
- 3. Han, J., et al., including **El-Badry, K.**, 2023, "NANCY: Next-generation All-sky Near-infrared Community surveY", arXiv:2306.12485
- 2. **El-Badry, K.**, 2022, "The gravitational redshift of solar-type stars from Gaia DR3 wide binaries", arXiv:2206.11092, RNAAS, 6, 137.
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