

KAREEM EL-BADRY

Division of Physics, Math, and Astronomy
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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

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

RESEARCH POSITIONS

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|---|-------------|
| 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

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| Alfred P. Sloan Research Fellow | 2025 |
| 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

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|---|-----------|
| Astronomy and Astrophysics Research Grant , NSF, PI, Total: \$496,984 NSF-AST-2508988: <i>Hypervelocity survivors of thermonuclear supernovae: new models and new discoveries</i> | 2025-2028 |
| Sloan Fellowship , physics, Alfred P. Sloan Foundation, PI, \$75,000 | 2025-2027 |
| Scialog Grant , RCSA, CO-PI, \$66,000 to Caltech SA-LSST-2024-114c: <i>IMBH in the LMC? A hypervelocity star survey with LSST</i> | 2025-2027 |
| Scialog Grant , RCSA and Heising-Simons Foundation, CO-PI, \$66,000 to Caltech | 2025-2027 |

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| SA-LSST-2024-084a: <i>White dwarf companions as brown dwarf chronometers</i> | |
| JWST General Observer Grant , NASA/STScI, PI, Total: \$79,486 | 2025-2027 |
| JWST-GO-04979: <i>Uncovering the cold donors of AM CVn binaries</i> | |
| HST General Observer Grant , NASA/STScI, PI, Total: \$88,306 | 2024-2026 |
| HST-GO-17441: <i>UV spectroscopy of runaways from thermonuclear supernovae</i> | |
| Astronomy and Astrophysics Research Grant , NSF, PI, Total: \$475,345 | 2023-2026 |
| NSF-AST-2307232: <i>Dormant black holes and neutron stars in stellar binaries</i> | |
| HST General Observer Grant , NASA/STScI, PI, Total: \$30,000 | 2023-2025 |
| HST-GO-17202: <i>Does MWC 656 host a black hole or a stripped helium star?</i> | |
| HST General Observer Grant , NASA/STScI, PI, Total: \$48,171 | 2023-2025 |
| HST-GO-17200: <i>A census of massive binaries and LBVs in the Whirlpool Galaxy</i> | |
| HST General Observer Grant , NASA/STScI, CO-I, subaward: \$23,181 | 2023-2025 |
| HST-GO-17216: <i>Establishing a 1% anchor for the Population II Distance Ladder with HST</i> | |

AWARDED TELESCOPE TIME (SUMMARY)

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| HST | 19 orbits (PI) + 148 orbits (CO-I) |
| JWST | 11 hours (PI) + 71 hours (CO-I) |
| Keck 10m | 17.5 nights (PI) + 26 nights (CO-I) |
| Magellan 6.5m | 9 nights (PI) + 4 nights (CO-I) |
| VLT 8.2m | 46 hours (PI) + 40 hours (CO-I) |
| LBT 2 × 8.4m | 3 nights (PI) + 3 nights (CO-I) |
| Gemini 8.1m | 23 hours (PI) |
| Palomar Hale 200 inch | 5 nights (PI) + 29 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) |
| McDonald 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

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| Public data – significant experience with data from Gaia, Kepler/K2, TESS, LAMOST, 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 – |
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COLLABORATION MEMBERSHIPS

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| <i>Euclid</i> Consortium (MW Spectroscopy working group) | 2025 – |
| <i>Gaia</i> Data Processing and Analysis Consortium (CU4: non-single stars) | 2024 – |
| Sloan Digital Sky Survey (binaries & compact objects working groups) | 2021 – |

STUDENT MENTORING

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|--|-------------|
| Soumyadeep Bhattacharjee (Caltech PhD student) | 2024 – |
| Ben Pennell (MPIA PhD student) | 2024 – |
| Cheyenne Shariat (Caltech PhD student) | 2024 – |
| Domani Sharkey (Caltech undergrad) | 2024 – |
| Lisa Blomberg (Caltech PhD student) | 2023 – |
| Antonio Rodriguez (Caltech PhD student) | 2022 – |
| Natsuko Yamaguchi (Caltech PhD student) | 2022 – |
| Pranav Nagarajan (Caltech PhD student) | 2020 – |
| Johanna Müller-Horn (MPIA PhD student) | 2023 – |
| Maude Gull (Berkeley PhD student) | 2022 – 2025 |
| Rhys Seeburger (MPIA PhD student) | 2021 – 2025 |
| Evan Portnoi (Caltech undergrad) | 2023 – 2024 |
| Umran Koca (Caltech undergrad) | 2023 – 2024 |
| Jesse Han (Harvard PhD student) | 2022 – 2023 |
| Vedant Chandra (Harvard PhD student) | 2021 – 2023 |
| Silvia Almada (MPIA masters student) | 2020 – 2022 |
| Nick Choksi (Berkeley undergrad) | 2018 – 2019 |

TEACHING EXPERIENCE

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|--|------------------|
| Instructor, Ay 124, <i>Structure and Evolution of Galaxies</i> , Caltech | WI2025 |
| Instructor, Ay 03, <i>Automating Discovery in the Universe</i> , Caltech | SP2024 |
| Instructor, Ay 123, <i>Stellar Structure and Evolution</i> , Caltech | WI2024, FA2024 |
| Graduate Student Instructor, Astro 128, <i>Astronomy Data Lab</i> , University of California, Berkeley | 2019, 2020, 2021 |
| Course Designer, Astro 128, <i>Astronomy Data Lab</i> , University of California, Berkeley | 2018, 2019, 2020 |
| Co-Instructor, Astro 375, <i>Graduate Pedagogy</i> , University of California, Berkeley | 2019, 2020 |
| Sole Instructor, <i>Stellar Physics</i> , Hyeonpung High School, Daegu, South Korea | 2019 |
| Graduate Student Instructor, Astro 160, <i>Stellar Physics</i> , University of California, Berkeley | 2018 |
| Graduate Student Instructor, Astro 7A, <i>Introduction to Astronomy</i> , University of California, Berkeley | 2017 |
| Graduate Student Instructor, Astro C12, <i>The Planets</i> , University of California, Berkeley | 2017 |
| Tutor & Grader, Math 120, <i>Multivariable Calculus</i> , Yale | 2013 – 2016 |
| Tutor, Math 111, <i>College Algebra</i> , Umpqua Community College | 2013 |

TALKS (SINCE 2017)

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| Königstuhl Colloquium, Max Planck Institute for Astronomy, Heidelberg, Germany | 2025 |
| Talk, Binary Stars in the Space Era conference, Keele, UK | 2025 |
| Astrophysics seminar, Royal Observatory of Belgium, Brussels, Belgium | 2025 |
| Astrophysics seminar, University of Liège, Liège, Belgium | 2025 |
| New Horizons Solvay Lectures in Physics, Université libre de Bruxelles, Brussels, Belgium | 2025 |
| KIPAC astrophysics colloquium, Stanford University, Palo Alto, CA | 2025 |
| CfA colloquium, Center for Astrophysics Harvard & Smithsonian, Cambridge, MA | 2025 |
| Astronomy colloquium, Columbia University, New York City, NY | 2025 |
| Talk, 10 years to LISA meeting, Jet Propulsion Laboratory, Pasadena, CA | 2025 |
| Astrophysics colloquium, Princeton University, Princeton, NJ | 2025 |
| Astrophysics seminar, Carnegie Mellon University, Pittsburgh, PA | 2025 |
| Astronomy colloquium, Indiana University, Bloomington, IN | 2025 |
| Astronomy colloquium, University of Texas, Austin, TX | 2024 |
| Review talk, Multimessenger binary mergers meeting, Aspen, CO | 2024 |
| Review talk, Lorentz center workshop on stripped stars, Leiden, Netherlands | 2024 |
| Talk, EUROWD24, Barcelona, Spain | 2024 |

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| Talk, SDSS-V collaboration meeting, Las Cruces, NM | 2024 |
| Astronomy colloquium, University of Washington, Seattle, WA | 2024 |
| Talk, 20 Years of the ITC conference, Cambridge, MA | 2024 |
| IAS Astrophysics Seminar, Princeton, NJ | 2024 |
| Caltech Astronomy Colloquium, Pasadena, CA | 2024 |
| UCSC Astronomy Colloquium, Santa Cruz, CA | 2023 |
| Sydney Institute for Astronomy seminar, Sydney, AU | 2023 |
| Astrophysics colloquium, Carnegie Observatories, Pasadena, CA | 2023 |
| Review talk, Massive Triples, Binaries and Mergers, Leuven, Belgium | 2023 |
| Review talk, Lorentz center workshop on stellar black holes, Leiden, Netherlands | 2023 |
| Astrophysical sciences division colloquium, NASA/Goddard | 2023 |
| Astrophysics colloquium, Boston University | 2023 |
| Astrophysics colloquium, Cornell University | 2023 |
| Astrophysics colloquium, University of Pennsylvania | 2023 |
| Astrophysics colloquium, University of Michigan | 2022 |
| Talk, KITP white dwarf conference, Santa Barbara, CA | 2022 |
| Astrophysics colloquium, Dunlap Institute, University of Toronto | 2022 |
| Astrophysics colloquium, Yale University | 2022 |
| Talk, ZTF theory network meeting, CA | 2022 |
| Talk, EUROWD22, Tübingen, Germany | 2022 |
| Galaxy coffee, Max Planck Institute for Astronomy, Heidelberg, Germany | 2022 |
| Astrophysics colloquium, Shanghai Astronomical Observatory | 2022 |
| Astrophysics colloquium, University of California, Los Angeles | 2022 |
| IAU working group on active B stars seminar | 2022 |
| Albert Einstein Institute seminar, Potsdam, Germany | 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 |

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| 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 |

REFEREED PUBLICATIONS (169 TOTAL; 37 FIRST-AUTHOR)

h-index: 49 (all papers), 28 (first-author papers)

citations: 7100+ (all papers), 2900+ (first-author papers)

*: student papers for which I was the primary advisor

169. * Shariat, C., **El-Badry, K.**, Gennaro, M., Ding, K., Simon, J. D., Avila, R. J., Calamida, A., Cassisi, S., Correnti, M., Weisz, D. R., Geha, M., Kirby, E. N., Brown, T. M., Ricotti, M., McQuinn, K. B. W., Kallivayalil, N., Gilbert, K., Pacifici, C., Guhathakurta, P., Crnojević, D., Boyer, M. L., Beaton, R. L., Chandra, V., Cohen, R. E., Renzini, A., Savino, A., Tollerud, E. J., 2025, “Wide binaries in an ultra-faint dwarf galaxy: discovery, population modeling, and a nail in the coffin of primordial black hole dark matter”, PASP, submitted.
168. Desai, A., Caiazzo, I., Vennes, S., Kawka, A., Cunningham, T., Kotwale, G., Cristea, A. A., Raymond, J. C., Camisassa, M., Althaus, L. G., Hermes, J. J., Traulsen, I., Fuller, J., Heyl, J., van Roestel, J., Burdge, K. B., Rodriguez, A. C., Pelisoli, I., Gänsicke, B. T., Szkody, P., Maheshwari, S. K., Vanderbosch, Z. P., Drake, A., Ferrario, L., Wickramasinghe, D., Justham, S., Pakmor, R., **El-Badry, K.**, Prince, T., Kulkarni, S. R., Graham, M. J., Rusholme, B., Laher, R. R., Purdum, J., 2025, “Magnetic atmospheres and circumstellar interaction in J1901+1458: Revisiting the most compact white dwarf merger remnant in the light of new UV and X-ray data: A new class of white dwarf merger remnants with X-ray emission”, arXiv:2509.03216, A&A, submitted.
167. Pallathadka, G. A., Chandra, V., Zakamska, N. L., Crumpler, N. R., Arseneau, S. M., **El-Badry, K.**, Gänsicke, B. T., Zenati, Y., Hermes, J. J., Schwöpe, A. D., Badenes, C., Gentile Fusillo, N. P., Morrison, S., Cunningham, T., Chakraborty, P., Tovmasian, G., Bizyaev, D., Pan, K., Anderson, S. F., Demasi, S., 2025, “Double white dwarf binaries in SDSS-V DR19: A catalog of DA white dwarf binaries and constraints on the binary population”, arXiv:2509.02906, ApJ, submitted.
166. Galiullin, I., Rodriguez, A. C., **El-Badry, K.**, Caiazzo, I., Szkody, P., Nagarajan, P., Whitebook, S., 2025, “Optical spectroscopy of the most compact accreting binary harboring a magnetic white dwarf and a hydrogen-rich donor”, arXiv:2508.20170, ApJL, in press.
165. Wetzel, A., Samuel, J., Gandhi, P. J., Ponnada, S. B., Su, K.-Y., Arora, A., Angles-Alcazar, D., Hayward, C. C., Sanderson, R. E., Feldmann, R., Cochrane, R., Nikakhtar, F., Panithanpaisal, N., Benavides, J. A., Pandya, V., Grudic, M., Hummels, C., Gurvich, A. B., Hafen, Z., Ma, X., Garrison-Kimmel, S., Sameie, O., Chan, T. K., **El-Badry, K.**, Necib, L., Loebman, S., Wellons, S., Robles, V. H., Wheeler, C., Moreno, J., Stern, J., Boylan-Kolchin, M., Bullock, J. S., Faucher-Giguère, C.-A., Kereš, D., Quataert, E., Hopkins, P. F., 2025, “Second public data release of the FIRE-2 cosmological zoom-in simulations of galaxy formation”, arXiv:2508.06608, ApJ, submitted.

164. Gao, S.-J., Li, X.-D., Wang, S., **El-Badry, K.**, Zhou, D.-J., Shao, Y.-X., Yan, Z., Wang, P., Zhou, P., Han, J.-L., 2025, “Search for radio pulsations from neutron star candidates in detached binaries”, *ApJ*, submitted.
163. * Yamaguchi, N., **El-Badry, K.**, Wong, T. L. S., Shen, K. J., 2025, “Carbon burning cannot explain puffy hypervelocity white dwarfs”, arXiv:2507.15952, *PASP*, submitted.
162. Cristea, A. A., Caiazzo I., Cunningham, T., Raymond, J. C., Vennes, S., Kawka A., Desai, A., Miller, D. R., Hermes, J. J., Fuller J., Heyl J., van Roestel, J., Burdge, K. B., Rodriguez, A. C., Pelisoli, I., Gänsicke, B. T., Szkody, P., Kenyon, S. J., Vanderbosch, Z., Drake, A., Ferrario L., Wickramasinghe, D., Karambelkar, V. R., Justham, S., Pakmor, R., **El-Badry, K.**, Prince, T., Kulkarni, S. R., Graham, M. J., Masci, F. J., Groom, S. L., Purdum, J., Dekany, R., Bellm, E. C., 2025, “A half-ring of ionized circumstellar material trapped in the magnetosphere of a white dwarf merger remnant”, arXiv:2507.13850, *A&A*, submitted.
161. **El-Badry, K.**, Fabry, M., Sana, H., Shenar, T., Seeburger, R., 2025, “Complex spectral variability and hints of a luminous companion in the Be star + black hole binary candidate ALS 8814”, arXiv:2509.01545, *OJAp*, in press.
160. * Nagarajan, P., **El-Badry, K.**, Reggiani, H., Lam, C. L., Simon, J. D., Mller-Horn J., Seeburger, R., Rix, H.-W., Isaacson, H., Lu, J., Chandra, V., Andrae, R., 2025, “A spectroscopic search for dormant black holes in low-metallicity binaries”, arXiv:2507.12532, *PASP*, in press.
159. Pallathadka, G. A., Chandra, V., Gänsicke, B. T., Zakamska, N. L., Koester, D., Zenati, Y., Crumpler, N. R., Arseneau, S. M., Hermes, J. J., Schreiber, M. R., Stassun, K. G., Schwöpe, A., **El-Badry, K.**, Tovmassian, G., Cunningham, T., Morrison, S., 2025, “Double white dwarf binaries in SDSS-V DR19: The discovery of a rare DA+DQ white dwarf binary with 31 hour orbital period”, arXiv:2507.11618, *ApJ*, submitted.
158. Li, J., Rix, H.-W., Ting, Y.-S., Mller-Horn, J., **El-Badry, K.**, Liu, C., Seeburger, R., Green, G. M., Zhang, X., 2025, “Millions of main-sequence binary stars from Gaia BP/RP spectra”, arXiv:2507.09622, *A&A*, submitted.
157. Miller, D. R., Caiazzo, I., Heyl, J., Richer, H. B., Tremblay, P.-E., Hollands, M. A., **El-Badry, K.**, 2025, The white dwarf initial-final mass relation from open clusters in Gaia DR3, *ApJ*, submitted.
156. SDSS-V Collaboration, including **El-Badry, K.**, 2025, “The nineteenth data release of the Sloan Digital Sky Survey”, arXiv:2507.07093, *ApJ*, submitted.
155. Kollmeier, J. A., Rix, H.-W., et. al., including **El-Badry, K.**, 2025, “Sloan Digital Sky Survey-V: pioneering panoptic spectroscopy”, arXiv:2507.06989, *ApJ*, submitted.
154. * Shariat, S., **El-Badry, K.**, Naoz, S., 2025, “10,000 resolved triples from Gaia: empirical constraints on triple star populations”, arXiv:2506.16513, *PASP*, in press.
153. Guidry, J. A., Vanderbosch, Z. P., Hermes, J.J., Veras, D., Hollands, M. A., Bhattacharjee, S., Caiazzo, I., **El-Badry, K.**, Kao M. L., Ould Rouis, L. B., Rodriguez, A. C., van Roestel, J., 2025, “Periodic transits every 4.97 hr from planetary debris near the Roche limit of a white dwarf – and their vanishing”, arXiv:2508.18348, *ApJ*, submitted.
152. Cookson, S. A., Banik, I., **El-Badry, K.**, Sutherland, W., Penoyre, Z., Pittordis, C., Clarke, C. J., 2025, “A quality framework for testing gravity with wide binaries: no evidence for MOND”, *MNRAS*, submitted.
151. Arseneau, S. M., Hermes, J. J., Zakamska, N. L., **El-Badry, K.**, Crumpler, N. R., Chandra, V., Pallathadka, G. A., Badenes, C., Gänsicke, B. T., Gentile Fusillo, N., 2025, “Resolution-corrected white dwarf gravitational redshifts validate SDSS-V wavelength calibration and enable accurate mass-radius tests”, arXiv:2508.04775, *ApJ*, in press.
150. Rubio, A. C., Breivik, C., Badenes, C., **El-Badry, K.**, Anguiano, B., Linck, E., Majewski, S., Stassun, K., 2025, “Calibration of Binary Population Synthesis Models Using White Dwarf Binaries from APOGEE, GALEX and Gaia”, arXiv:2505.15893, *A&A*, submitted.
149. * Yamaguchi, N., **El-Badry, K.**, Shahaf, S., 2025, “Population demographics of white dwarf binaries with intermediate separations: Gaia constraints on post-AGB mass transfer”, arXiv:2505.14786, *PASP*, submitted.
148. **El-Badry, K.**, 2025, “How to use *Gaia* parallaxes for stars with poor astrometric fits”, arXiv:2504.11528, *OJAp*, 8, 62.
147. Belloni, D., Schreiber, M. R., **El-Badry, K.**, 2025, “Resolution of a paradox: SDSS J1257+5428 can be explained as a descendant of a cataclysmic variable with an evolved donor”, arXiv:2503.16204, *A&A*, 697, 100.

146. Bhattacharjee, S., Reindl, N., Bond, H. E., Werner, K., Zeimann, G. R., Jones, D., Chornay, N., Mackensen, N., Kulkarni, S. R., Caiazzo, I., van Roestel, J., Rodriguez, A. C., **El-Badry, K.**, Prince, T. A., Rusholme, B., Laher, R. R., Smith, R., 2025, “Variability of Central Stars of Planetary Nebulae with the Zwicky Transient Facility. II. Long-Timescale Variables including Wide Binary and Late Thermal Pulse Candidates”, arXiv:2502.18651, PASP, submitted.
145. Matsuno, T., Kemp, A., Tanikawa, A., Shariat, S. E., **El-Badry, K.**, Dodd, E., Helmi, A., Koch-Hansen, A. J., Yamaguchi, N., Yan, H., 2025, “Unevolved Li-rich stars at low metallicity: a possible formation pathway through novae”, arXiv:2502.18552, A&A, 699, 171.
144. Bhattacharjee, S., Vanderbosch, Z. P., Hollands, M. A., Tremblay, P. E., Xu, S., Guidry, J. A., Hermes, J. J., Caiazzo, I., Rodriguez, A. C., van Roestel, J., **El-Badry, K.**, Roulston, B. R., Reed, R., Rusholme, B., Groom, S. L., Smith, R., Toloza, O., 2025, “A ZTF search for circumstellar debris transits in white dwarfs: six new candidates, one with gas disk emission, identified in a novel metric space”, arXiv:2502.05502, PASP, 137, 4202.
143. * Nagarajan, P., **El-Badry, K.**, Chawla, C., Di Carlo, U., Breivik, K., Rodriguez, C. L., Agrawal, P., Delfavero, V., Chatterjee, S., 2025, “Realistic predictions for Gaia black hole discoveries: comparison of isolated binary and dynamical formation models”, arXiv:2502.03527, PASP, 137, 4202N.
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