Kristen Dage
Curriculum Vitæ

Graduate Student
Dept. of Physics and Astronomy
Michigan State University
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Education

2015 - present	Ph.D. Astronomy and Astrophysics Michigan State University, East Lansing, MI Advisor: S.E. Zepf
2015 - 2017	M.S. Astronomy and Astrophysics Michigan State University, East Lansing, MI
2012 - 2014	B.S. Physics University of Michigan-Dearborn, Dearborn MI

Teaching and Mentoring Experience

2018-	Supervising MSU undergraduate Omid Noroozi's project of searching for long and short term variability of ultraluminous X-ray sources in globular clusters.
2015 - 2018	Teaching Assistant ISP 205L -Visions of the Universe Michigan State University, East Lansing, MI
2011 - 2014	Math, Physical Sciences Tutor Academic Support Center Oakland Community College, Farmington Hills, MI

Accepted Proposals

Chandra Cycle 20: *"The Nature of the Two Globular Cluster ULXs in the Galaxy NGC 4472"*. Awarded 90 ks time.

Professional Presentations

2018 Aug	International Centre for Radio Astronomy Research (Perth, Australia), Colloquium Talk
2018 Aug	Chandra Accretion Workshop (Cambridge, MA), Poster presentation
2018 Apr	Compact Objects in Michigan 6 (Ann Arbor, MI), Contrib. Talk
2018 Mar	HEAD Special Meeting on High Energy Astrophysics in the 2020s and Beyond (Rosemont, IL), Poster presentation
2017 Mar	Compact Objects in Michigan 5 (East Lansing, MI), Contrib. Talk
2017 Feb	Gemini South Observatory, (La Serena, Chile), Colloquium Talk
2017 Jan	229th American Astronomical Society meeting (Grapevine, TX), Poster presentation
2014 Nov	Annual Physics Undergrad Research Conference at Wayne State University (Detroit, MI), Poster presentation
2014 Jun	218th American Astronomical Society meeting (Boston, MA), Poster presentation
2014 Apr	Compact Objects in Michigan 2 (East Lansing, MI), Contrib. Talk

Outreach

2018	Volunteer at MSU Observatory's Nature Night, East Lansing, MI
2018	Public talk on "History of Astronomy" for Astronomy on Tap, Lansing MI (slides)
2018	MSU Science Festival Expo Days (Primary Astronomy Organizer), East Lansing, MI
2017	Public talk for Capital Area Astronomy Association, East Lansing, MI
2017	Public talk on "Observing in Chile" for Astronomy on Tap, Lansing MI

2016	Volunteer at MSU Science Festival Expo Days, East Lansing, MI
2015	Volunteer, Science Exploration Days, Dearborn, MI
2014	Volunteer, Science Olympiad regionals, Dearborn, MI

Other

2018	Certificate in Inclusive Inquiry STEM Education from the Institute for Scientist & Engineer Educators Professional Development Program (ISEE PDP), Santa Cruz, CA.
2018	Astronomy Instructor - GUPPY (Gifted University for Parents and Precocious Youth) Designed curriculum and instructed a class for 5th-6th graders through MSU's Gifted and Talented Education program. (June 30-July 1), East Lansing, MI.
2017-2018	Mentor for REU students and incoming graduate students through MSU's WAMPS (Women and Minorities in Physical Sciences), East Lansing, MI.
2016-2018	Organizer of MSU Astronomy group journal discussion, East Lansing, MI.
2014	Outstanding Physics Student *Dept. Natural Sciences, University of Michigan-Dearborn*
2014	English Translation (from German) of Boltzmann's "Analytical Proof of the Second Law of Thermodynamics from the Basis of the Conservation of Total Energy", under the supervision of Dr. Jeffrey Prentis (Natural Sciences Dept.) and Dr. Jacqueline Vansant (German Dept.), University of Michigan-Dearborn, Dearborn, MI.
2012-2014	Undergraduate Research with Dr. Will Clarkson, which ultimately resulted in our 2018 publication "*A Search for Spin-Superorbital Period Correlation in SMC X-1*", University of Michigan-Dearborn, Dearborn, MI.

Experience and Analysis Skills

- X-ray spectroscopy, imaging analysis (*Chandra*, *XMM-Newton*, *RXTE*)
- Optical spectroscopy analysis (*SOAR/GHTS*, *Gemini/GMOS*, *VLT/FORS2*)
- Ultraviolet imaging and photometry analysis (*Swift/UVOT*)
- Conducting optical observations (*SOAR* observatory)
- Programming: Python, Mathematica
- Major astronomical packages: AstroPy, CIAO, HEASoft (XSpec, FTools), IRAF

Publications

Refereed

1. **K. C. Dage**, S. E. Zepf, A. Bahramian, A. Kundu, T. J. Maccarone, M. B. Peacock, "*X-Ray Variability from the Ultraluminous Black Hole Candidate X-ray Binary in the Globular Cluster RZ 2109*", 2018, ApJ, Accepted.

2. **K.C. Dage**, W.I. Clarkson, P.A. Charles, S. Laycock, I-C. Shih "*A Search for Spin-Superorbital Period Correlation in SMC X-1*", 2018, MNRAS, accepted.

3. M. A. Tucker, B. J. Shappee, T. W.-S. Holoien, K. Auchettl, J. Strader, K. Z. Stanek, C. S. Kochanek, A. Bahramian, Subo Dong, J. L. Prieto, Todd A. Thompson, John F. Beacom, L. Chomiuk, L. Denneau, H. Flewelling, A. N. Heinze, K. W. Smith, B. Stalder, J. L. Tonry, H. Weiland, A. Rest, M. E. Huber, D. M. Rowan, **K. Dage** "*ASASSN-18ey: The Rise of a New Black-Hole X-ray Binary*" 2018, ApJ, Accepted.

4. Strader, J.; Swihart, S.; Chomiuk, L.; Bahramian, A.; Britt, C..; Cheung, C. ; **Dage, K.** Halpern, J; Li, K.; Mignani, R.; Orosz, J.; Peacock, M.; Salinas, R.; Shishkovsky, L.; Tremou, E., "*Optical spectroscopy and demographics of redback millisecond pulsar binaries*", 2018, ApJ, Accepted.

5. **K.C. Dage**, S.E. Zepf, M.B. Peacock, A. Bahramian, O. Noroozi, A.Kundu, T.J. Maccarone, "*X-Ray Spectral Variability of Ultraluminous X-Ray Sources in Extragalactic Globular Clusters*", 2018 MNRAS, submitted.

6. **K.C. Dage**, S.E. Zepf, M.B. Peacock, A. Bahramian, A. Kundu, T.J. Maccarone, "*Optical Monitoring of the Broad [OIII] Emission Line in Globular Cluster Black Hole Candidate RZ2109*", 2018 (in prep)

Unrefereed

1. **Dage, K. C.**; Zepf, S. E.; Strader, J.; Dimitriadis, G.; Foley, R. J.; Kilpatrick, C. D.; Jones, D. O.; Rojas-Bravo, C. "*Spectroscopic Classification of SN 2018agk with SOAR/Goodman*", 2018, The Astronomer's Telegram, No. 11433

2. Bahramian, A.; Strader, J.; **Dage, K**., "*SOAR/Goodman optical spectroscopy of MAXI J1820+070*", 2018, The Astronomer's Telegram, No. 11424