

# Kristen Dage

## Curriculum Vitæ

Graduate Student  
Dept. of Physics and Astronomy  
Michigan State University  
East Lansing, MI 48824

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<https://kcdage.github.io/>

### 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 and Grants

- 2019 AAS International Travel Grant
- 2018 Chandra Cycle 20: *"The Nature of the Two Globular Cluster ULXs in the Galaxy NGC 4472"*. Awarded 90 ks time.

### Professional Presentations

- 2019 Jan Michigan State University (East Lansing, MI), Seminar Talk
- 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

- 2019 Organized an [event](#) in response to the IAU Women and Girls in Astronomy Month at MSU's Abrams Planetarium, East Lansing, MI
- 2019 Volunteer for [CUWiP \(Conference for Undergraduate Women in Physics\)](#) hosted at MSU, East Lansing, MI

2018	Volunteer at MSU Observatory's Nature Night, East Lansing, MI
2018	Public talk on "History of Astronomy" for Astronomy on Tap, Lansing MI ( <a href="#">slides</a> )
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 Regional levels division B (Solar System), Dearborn, MI

## Other

2018	Certificate in Inclusive Inquiry STEM Education from the <a href="#">Institute for Scientist &amp; Engineer Educators Professional Development Program (ISEE PDP)</a> , 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-	Organizer of MSU Astronomy group journal discussion, East Lansing, MI.
2014	Outstanding Physics Student <i>Dept. Natural Sciences, University of Michigan-Dearborn</i>
2014	English Translation (from German) of Boltzmann's " <a href="#">Analytical Proof of the Second Law of Thermodynamics from the Basis of the Conservation of Total Energy</a> ", under the supervision of Dr. Jeffrey Prentis (Natural Sciences Dept.) and Dr. Jacqueline Vansant (German Dept.), University of Michigan-Dearborn, Dearborn, MI.
2013	Participated in <a href="#">CUREA (Consortium for Undergraduate Research and Education in Astronomy)</a> , with a research project on sunspots using one of the historic solar telescopes on Mount Wilson Observatory in the San Gabriel Mountains.
2012-2014	Undergraduate Research with Dr. Will Clarkson, which ultimately resulted in our 2018 publication " <a href="#">A Search for Spin-Superorbital Period Correlation in SMC X-1</a> ", University of Michigan-Dearborn, Dearborn, MI.
2011	Certificate in Bird Biology from the Cornell Lab of Ornithology

## Analysis and Software

- X-ray spectroscopy, imaging and timing analysis (*Chandra*, *XMM-Newton*, *RXTE*)
- Optical spectroscopy analysis (*SOAR/GHTS*, *Gemini/GMOS*, *VLT/FORS2*)
- Ultraviolet imaging and photometry (*Swift/UVOT*)
- Infrared imaging (*Spitzer/IRAC*)
- 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*”, 2019 [MNRAS](#), [accepted](#).

## Unrefereed

1. **K Dage**, S.E. Zepf, J. Strader, G. Dimitriadis, R. J. Foley, C. D. Kilpatrick, D. O. Jones, C. Rojas-Bravo, “*Spectroscopic Classification of SN 2018agk with SOAR/Goodman*”, 2018, The Astronomer’s Telegram, No. 11433
2. A. Bahramian, J. Strader, **K Dage**., “*SOAR/Goodman optical spectroscopy of MAXI J1820+070*”, 2018, The Astronomer’s Telegram, No. 11424
3. K. V. Sokolovsky, J. Strader, **K. Dage**, L. Shishkovsky, E. Aydi, L. Chomiuk, A. Kawash, K. Z. Stanek, C. S. Kochanek, J. V. Shields, T. A. Thompson, B. J. Shappee, T. W.-S. Holoien, J. L. Prieto, Subo Dong , M. Stritzinger, “*ASAS-SN Discovery of a Bright Candidate Microlensing Event ASASSN-19cq*”, 2019, The Astronomer’s Telegram, No. 12495