

**Adrienne M. Cool**  
**CURRICULUM VITAE**

Department of Physics and Astronomy  
San Francisco State University  
1600 Holloway Avenue  
San Francisco, CA 94132

Tel: (415)338-6450  
Fax: (415)338-2178  
E-mail: cool@sfsu.edu

*Education*

Ph.D. Astronomy, Harvard University (1994)  
M.S. Electrical Engineering, Columbia University (1986)  
B.S. Physics, Yale University (1984)

*Employment*

2006–present Professor, Department of Physics and Astronomy  
San Francisco State University

2000–06 Associate Professor, Department of Physics and Astronomy  
San Francisco State University

1996–00 Assistant Professor, Department of Physics and Astronomy  
San Francisco State University

1993–96 Postdoctoral Researcher, Department of Astronomy  
University of California, Berkeley

1988–93 Research Assistant, Department of Astronomy  
Harvard University

1988–90 Teaching Assistant, Department of Astronomy  
Harvard University

1987 Research Assistant, Astrophysics Laboratory  
Columbia University

1986 Teaching Assistant, Department of Electrical Engineering  
Columbia University

1985 Research Assistant, Department of Electrical Engineering  
Columbia University

1984 Private instructor in mathematics and physics

1981–84 Technical Assistant, Department of Nuclear Medicine  
Mount Sinai Medical Center, New York City

*Honors and Awards*

- Image of globular star cluster Omega Centauri chosen for Hubble Heritage web site (2008)
- Affirmative Action Award, San Francisco State University (2005)
- Image of globular star cluster NGC 6397 chosen for Hubble Heritage web site (2003)
- Presidential Award for Professional Development of Probationary Faculty, San Francisco State University (2000)

- Outstanding Contributions to Teaching Certificate, San Francisco State University (1997)
- Fellow, NASA Graduate Student Researchers Program (1992-93)
- Harvard Merit Fellowship (1990)
- Danforth Center Certificate for Teaching Excellence, Harvard University (1989)
- Amelia Earhart Fellowship Award, Zonta International Foundation (1989, 1990)
- Teaching Assistant/Scholar Award, Columbia University, Dept. of Electrical Engineering (1986)

### *Courses Taught*

- Introduction to Astronomy (Astronomy 115, GE)
- Introduction to Astronomy Laboratory (Astronomy 116, GE)
- Stars, Planets, and the Milky Way (Astronomy 320/300)
- Observational Astronomy Laboratory (Astronomy 321/301)
- Observational Projects Laboratory (Astronomy 390)
- Senior Seminar in Astronomy (Astronomy 490)
- Hands on Undergraduate Science Education Experience (EED 655)
- Research Supervision (Astronomy 697 & 699; Physics 897, 898 & 899)
- Teaching Supervision (Astronomy 685)

### *University and Department Committees and Duties*

- Chair, Faculty Hiring Committee (2018-2019)
- Director, SFSU Observatory (1996-present)
- Director, SFSU Planetarium (1996-present)
- Undergraduate Advising (1996-present)
- Masters Thesis and Oral Exam Committees (1997-present)
- Astronomy 116 Lab Coordinator (1998-2005, 2008-2015)
- University Teacher Credential Committee (2009-2011)
- Co-Director, Center for Science and Mathematics Education (2008-2009)
- Chair, Astronomy Curriculum Committee (2004-2007)
- Science Teaching Credential Committee (2004)
- Astronomy and Astrophysics Journal Club Coordinator (1997-2004)
- Chair, Faculty Hiring Committee (2001-2002)
- Chair, Departmental H RTP Committee (2000-2002)
- CSE Course Fee Advisory Committee (1997-2000)
- CSU Research Competition Committee (1999)
- Physics and Astronomy Colloquium Committee (1997-1999)

*Professional Duties*

- 2018        Reviewer, Astronomy and Astrophysics (European journal)
- 1994–      Reviewer, The Astrophysical Journal
- 2011        Member, Hubble Space Telescope Proposal Review Panel
- 2004        Member, NASA Chandra X-Ray Satellite Proposal Review Panel
- 2002        Member, Scientific Organizing Committee, “Globular Clusters: Formation, Evolution, and the Role of Compact Objects,” meeting at Institute for Theoretical Physics, Santa Barbara, CA
- 2002        Member, Scientific Organizing Committee, “New Horizons in Globular Cluster Astronomy” meeting in Padua, Italy
- 2001        Member, NSF Proposal Review Panel
- 2000–02    Member, Chandra Users Committee
- 1998–99    Proposal Reviewer, Canada-France-Hawaii Telescope
- 1998        Member, Hubble Space Telescope Proposal Review Panel
- 1998        Member, NASA AXAF X-Ray Satellite Proposal Review Panel
- 1996        Member, NSF Proposal Review Panel
- 1994        Member, NASA ROSAT X-Ray Satellite Proposal Review Panel

*Professional Talks*

- 2012        Invited talk, University of Washington, Conference in honor of Ivan King
- 2012        Invited presentation, Physics Teacher Education Coalition Regional Conference, Ontario, CA
- 2011        Invited talk, Northwestern University, Department of Astronomy
- 2011        Colloquium, UC Santa Cruz, Department of Astronomy
- 2011        Seminar, Space Telescope Science Institute
- 2009        Contributed talk, “Formation and Evolution of Globular Clusters” conference, Kavli Institute for Theoretical Physics, UC Santa Barbara
- 2005        Invited review, “Modeling Dense Stellar Systems” conference, Northwestern University
- 2002        Invited talk, “New Horizons in Globular Cluster Astronomy” conference, Padua, Italy
- 2002        Invited talk, plenary session, American Physical Society meeting, Albuquerque, NM
- 2001        Invited talk, “Omega Centauri: A Unique Window into Astrophysics” conference, Cambridge, UK
- 2000        Invited talk, “Stellar Collisions and Mergers” conference, New York City
- 1999        Colloquium, Indiana University, Department of Astronomy
- 1999        Colloquium, UCLA, Department of Astronomy

- 1999 Colloquium, Carnegie Observatories, Pasadena, CA
- 1997 Colloquium, UC Santa Cruz, Department of Astronomy
- 1997 Colloquium, San Francisco State University, Department of Physics and Astronomy
- 1997 Seminar, Yale University, Department of Astronomy
- 1997 Invited review, “The Stellar Initial Mass Function” conference, Cambridge, England
- 1997 Invited talk, American Astronomical Society meeting, Winston-Salem, N.C.

*Public Talks*

- 2001-2018 Annual talk, star party and fundraiser for Alpine County, K-12 science programs
- 2015 Sonoma County Astronomical Society, Santa Rosa, CA
- 2009 Trivalley Astronomical Society, Livermore, CA
- 2007 Sonoma County Astronomical Society, Santa Rosa, CA
- 2006 San Francisco Amateur Astronomers, Randall Museum, San Francisco, CA
- 2002 East Bay Astronomical Society, Chabot Observatory and Science Center, Oakland, CA
- 2002 San Mateo Astronomical Society, College of San Mateo, San Mateo, CA
- 2002 San Francisco Amateur Astronomers, Morrison Planetarium, San Francisco, CA
- 2001 Young Astronomers Club in Sonoma County, Kenwood, CA
- 2001 Two fundraising events for Sonoma County Astronomical Society at Robert Ferguson Observatory, Sonoma County, CA
- 2001 San Francisco Amateur Astronomers, Mt. Tamalpais, Marin County, CA
- 2000 Peninsula Astronomical Society, Foothill College, CA
- 2000 Sonoma County Astronomical Society, Santa Rosa, CA
- 2000 Public Forum on “Stellar Collisions and Mergers, ” American Museum of Natural History, New York City
- 2000 Trustees of the American Museum of Natural History, New York City
- 1999 Sonoma State University (“What Physicists Do” Lecture Series)
- 1999 California Map Society Annual Meeting, SFSU campus
- 1999 SFSU Centennial Museum Walk
- 1999 Sonoma County Astronomical Society, Santa Rosa, CA
- 1998 San Francisco Amateur Astronomers, Morrison Planetarium, San Francisco, CA
- 1998 Santa Rosa Astronomical Society, Santa Rosa, CA

*Approved Proposals*

- 2018 NASA/Chandra Observatory, #20620676 (PI)  
“A Census of X-ray Emitting Binary Stars in the Nearby Fermi-Detected Cluster M12”

- 2013 NASA/Hubble Space Telescope, GO-13297 (Co-I)  
“The HST Legacy Survey of Galactic Globular Clusters: Shedding UV Light on Their Populations and Formation”
- 2013 NASA/Hubble Space Telescope, GO-12950 (Co-I)  
“A Deep, Near-UV Probe of the Faint Cataclysmic Variable Population of 47 Tucanae”
- 2011 NASA/Chandra Observatory, #13400768 (PI)  
“X-ray Constraints on the Dynamical History of Omega Centauri”
- 2011 NASA/Hubble Space Telescope, GO-12254 (PI)  
“Helium-core White Dwarfs and Cataclysmic Variables in NGC 6752: New Clues to the Dynamical Evolution of Globular Clusters”
- 2011 NASA/Hubble Space Telescope, GO-12656 (Co-I)  
“The Ultimate Catalog of Omega Centauri: 15-Band Photometry and Proper Motions”
- 2010 Fund for Astrophysical Research, Inc., Theodore Dunham grant (PI)
- 2009 NASA/Hubble Space Telescope, GO-10257, supplemental funding (Co-I)  
“Astrometric and Photometric Study of NGC 6397 for Internal Motions, Dark Binaries, and X-Ray Sources”
- 2006 National Optical Astronomy Observatory, NOAO-06B-0583 (PI)  
“Systematic Study of Cataclysmic Variables in NGC 6397”
- 2005 NASA/Hubble Space Telescope, GO-9442, supplemental funding (PI)  
“Optical Counterparts for Low-Luminosity X-Ray Sources in Omega Centauri”
- 2004 NASA/Hubble Space Telescope, GO-10257 (Co-I)  
“Astrometric and Photometric Study of NGC 6397 for Internal Motions, Dark Binaries, and X-Ray Sources”
- 2004 NASA/Hubble Space Telescope, GO-10101 (Co-I)  
“The Region of the Hydrogen-Burning Limit in Omega Centauri and 47 Tucanae”
- 2004 National Optical Astronomy Observatory, NOAO-04A-0432 (PI)  
“Monitoring a Probable Dwarf Nova in the Core of M22”
- 2002 NASA/Hubble Space Telescope, GO-9442 (PI)  
“Optical Counterparts for Low-Luminosity X-Ray Sources in Omega Centauri”
- 2002 NASA/Hubble Space Telescope, GO-9444 (Co-I)  
“The Region of the Hydrogen-Burning Limit in Omega Centauri and 47 Tucanae”
- 2001 NSF (Co-I)  
“ChaMPlane: Measuring the Faint X-ray Binary and Stellar Content of the Galaxy”
- 2001 NASA/Hubble Space Telescope (Co-I)  
“The Hydrogen-Burning Limit in the Globular Cluster NGC 6397”
- 2001 Fund for Astrophysical Research, Inc., Theodore Dunham grant (PI)
- 2000 NASA/Chandra Observatory (Co-I)  
“Analysis of Archival Deep Chandra Galactic Plane Fields”
- 2000 NSF (Co-I)  
“The WIYN Kitt Peak 0.9 meter Initiative”
- 2000 NASA/Chandra Observatory, #1300889 (PI)  
“X-Ray Constraints on the Binary Star Populations in Omega Centauri”

- 2000 NASA/Hubble Space Telescope, GO-8124 (Co-I)  
“The Stellar Initial Mass Function of Globular Clusters”
- 1999 NASA/Hubble Space Telescope, GO-8153 (Co-I)  
“Exploring the Luminosity Function near the Limit of Hydrogen Burning in Globular Clusters”
- 1999 NASA/Hubble Space Telescope, GO-8310 (Co-I)  
“White Dwarf Distances to Globular Clusters and the RR Lyrae Luminosity Calibration – M5”
- 1998 NASA/Hubble Space Telescope, GO-7889 (Co-I)  
“Study of Compact Binaries in the Extreme Globular Cluster Terzan 5”
- 1999 NASA/Hubble Space Telescope, GO-7335 (Co-I)  
“Deep Survey for CVs and Compact Binaries in the Collapsed-Core Globular Cluster NGC 6397”
- 1997 NASA/Hubble Space Telescope, GO-6821 (PI)  
“Optical Counterparts for Low-Luminosity X-Ray Sources in Globular Clusters”
- 1997 NASA/Hubble Space Telescope, GO-5929 (PI)  
“White Dwarfs and their Binary Progeny in the Core-Collapsed Globular Cluster NGC 6397”
- 1997 NASA/ROSAT X-Ray Satellite, NAG5-4885 (Co-I)  
“A Deep ROSAT HRI Survey of Galactic Globular Clusters”
- 1996 NASA/Hubble Space Telescope, GO-6742 (Co-I)  
“Spectroscopic Study of Origin and Nature of CVs in Globular Clusters”

#### *Society memberships*

- American Astronomical Society

#### *Publications During Appointment at SFSU*

\* student author

#### **Refereed Journals**

- Henleywillis\*, S., Cool, A. M., Haggard, D., Heinke, C., Callanan, P., Zhao, Y. 2018, “A Deep X-ray Survey of the globular cluster Omega Centauri,” *Monthly Notices of the Royal Astronomical Society*, 479, 2834
- Rivera Sandoval, L. E., van den Berg, M., Heinke, C. O., Cohn, H. N., Lugger, P. M., Anderson, J., Cool, A. M., Edmonds, P. D., Wijnands, R., Ivanova, N., Grindlay, J. E. 2018, “New cataclysmic variables and other exotic binaries in the globular cluster 47 Tucanae,” *Monthly Notices of the Royal Astronomical Society*, 475, 4841
- Bellini, A., Anderson, J., Bedin, L. R., King, I. R., van der Marel, R. P., Piotto, G., Cool, A. 2017, “The State-of-the-art HST Astro-photometric Analysis of the Core of Centauri. I. The Catalog,” *Astrophysical Journal*, 842, 6
- Lugger, P. M., Cohn, H. N., Cool, A. M., Heinke, C. O., Anderson, J. 2017, “Identification of Faint Chandra X-Ray Sources in the Core-collapsed Globular Cluster NGC 6752,” *Astrophysical Journal*, 841, 53

- Soto, M., Bellini, A., Anderson, J., Piotto, G., Bedin, L. R., van der Marel, R. P., Milone, A. P., Brown, T. M., Cool, A. M., King, I. R., Sarajedini, A., Granata, V., Cassisi, S., Aparicio, A., Hidalgo, S., Ortolani, S., Nardiello, D. 2017, “The Hubble Space Telescope UV Legacy Survey of Galactic Globular Clusters. VIII. Preliminary Public Catalog Release,” *Astronomical Journal*, 153, 19
- Piotto, G., Milone, A. P., Bedin, L. R., Anderson, J., King, I. R., Marino, A. F., Nardiello, D., Aparicio, A., Barbuy, B., Bellini, A., Brown, T. M., Cassisi, S., Cool, A. M., Cunial, A., Dalessandro, E., D’Antona, F., Ferraro, F. R., Hidalgo, S., Lanzoni, B., Monelli, M., Ortolani, S., Renzini, A., Salaris, M., Sarajedini, A., van der Marel, R. P., Vesperini, E., Zoccali, M. 2015, “The Hubble Space Telescope UV Legacy Survey of Galactic Globular Clusters. I. Overview of the Project and Detection of Multiple Stellar Populations,” *Astronomical Journal*, 149, 91
- Rivera-Sandoval, L. E., van den Berg, M., Heinke, C. O., Cohn, H. N., Lugger, P. M., Freire, P., Anderson, J., Serenelli, A. M., Althaus, L. G., Cool, A. M., Grindlay, J. E., Edmonds, P. D., Wijnands, R., Ivanova, N., 2015, “Discovery of near-ultraviolet counterparts to millisecond pulsars in the globular cluster 47 Tucanae” *Monthly Notices of the Royal Astronomical Society*, 453, 2707
- Piotto, G., Milone, A. P., Bedin, L. R., Anderson, J., King, I. R., Marino, A. F., Nardiello, D., Aparicio, A., Barbuy, B., Bellini, A., Brown, T. M., Cassisi, S., Cool, A. M., Cunial, A., Dalessandro, E., D’Antona, F., Ferraro, F. R., Hidalgo, S., Lanzoni, B., Monelli, M., Ortolani, S., Renzini, A., Salaris, M., Sarajedini, A., van der Marel, R. P., Vesperini, E., Zoccali, M. 2015, “The Hubble Space Telescope UV Legacy Survey of Galactic Globular Clusters. I. Overview of the Project and Detection of Multiple Stellar Populations,” *Astronomical Journal*, 149, 91
- Bellini, A., Anderson, J., van der Marel, R. P., Watkins, L. L., King, I. R., Bianchini, P., Chanamé, J., Chandar, R., Cool, A. M., Ferraro, F. R., Ford, H., & Massari, D. 2014, “Hubble Space Telescope Proper Motion (HSTPROMO) Catalogs of Galactic Globular Clusters. I. Sample Selection, Data Reduction, and NGC 7078 Results,” *Astrophysical Journal*, 797, 115
- Heinke, C. O., Cohn, H. N., Lugger, P. M., Webb, N. A., Ho, W. C. G., Anderson, J., Campana, S., Bogdanov, S., Haggard, D., Cool, A. M., & Grindlay, J. E. 2014, “Improved mass and radius constraints for quiescent neutron stars in Omega Cen and NGC 6397,” *Monthly Notices of the Royal Astronomical Society*, 444, 443
- Wooten\*, M. M., Cool, A. M., Prather, E. E., & Tanner, K. D. 2014, “Comparison of performance on multiple-choice questions and open-ended questions in an introductory astronomy laboratory,” *Phys. Rev. ST Phys. Educ. Res.*, 10, 020103
- Forestell, L. M., Heinke, C. O., Cohn H. N., Lugger, P. M., Sivakoff, G. R., Bogdanov, S., Cool, A. M., & Anderson, J. 2014, “A Chandra Look at the X-ray Faint Millisecond Pulsars in the Globular Cluster NGC 6752,” 2014 *Monthly Notices of the Royal Astronomical Society*, 441, 757
- Haggard, D., Cool, A. M., Heinke, C. O., van der Marel, R., Cohn H. N., Lugger, P. M. & Anderson, J. 2013, “A Deep Chandra X-Ray Limit on the Putative IMBH in Omega Centauri,” *Astrophysical Journal*, 773, L31
- Cool, A. M., Haggard, D., Arias\*, T., Brochmann\*, M., Dorfman\*, J., Gafford\*, A., White\*, V. & Anderson, J. 2013, “HST/ACS Imaging of Omega Centauri: Optical Counterparts of Chandra X-Ray Sources,” *Astrophysical Journal*, 763, 126

- Hourihane, A. P., Callanan, P. J., Cool, A. M., and Reynolds, M. T. 2011, Ground- and space-based study of two globular cluster cataclysmic variables: M22 CV1 and M5 V101,” *Monthly Notices of the Royal Astronomical Society*, 414, 184
- Haurberg, N. C., Lubell, G. M. G., Cohn, H. N., Lugger, P. M., Anderson, J., Cool, A. M., Serenelli, A. M. 2010, “Ultraviolet-bright Stellar Populations and Their Evolutionary Implications in the Collapsed-core Cluster M15,” *Astrophysical Journal*, 722, 158
- Cohn, H. N., Lugger, P. M., Couch, S. M., Anderson, J., Cool, A. M., van den Berg, M., Bogdanov, S., Heinke, C. O., Grindlay, J. E. 2010, “Identification of Faint Chandra X-ray Sources in the Core-collapsed Globular Cluster NGC 6397: Evidence for a Bimodal Cataclysmic Variable Population,” *Astrophysical Journal*, 722, 20
- Strickler\*, R. R., Cool, A. M., Anderson, J., Cohn, H. N., Lugger, P. M., & Serenelli, A. M. 2009, “Helium-core White Dwarfs in the Globular Cluster NGC 6397,” *Astrophysical Journal*, 699, 40
- Haggard\*, D., Cool, A. M., & Davies, M. B. 2009, “A Chandra Study of the Galactic Globular Cluster Omega Centauri,” *Astrophysical Journal*, 697, 224
- Villanova, S., Piotto, G., King, I. R., Anderson, J., Bedin, L. R., Gratton, R. G., Cassisi, S., Momany, Y., Bellini, A., Cool, A. M., Recio-Blanco, A., & Renzini, A. 2007, “The Multiplicity of the Subgiant Branch of Omega Centauri: Evidence for Prolonged Star Formation,” *Astrophysical Journal*, 663, 296
- Layden, A. C., Sarajedini, A., von Hippel, T., & Cool, A. M. 2005, “Deep Photometry of the Globular Cluster M5: Distance Estimates from White Dwarf and Main Sequence Stars,” *Astrophysical Journal*, 632, 266
- Haggard\*, D., Cool, A. M., Anderson, J., Edmonds, P. D., Callanan, P. J., Heinke, C. O., Grindlay, J. E., & Bailyn, C. D. 2004, “HST/ACS Imaging of Omega Centauri: Optical Counterpart for the Quiescent Low-Mass X-Ray Binary,” *Astrophysical Journal*, 613, 512
- Ferraro, F. R., Sollima, A., Pancino, E., Bellazzini, M., Straniero, O., Origlia, L. & Cool, A. M. 2004, “The Discovery of an Anomalous Subgiant Branch in the Color-Magnitude Diagram of Omega Centauri,” *Astrophysical Journal Letters*, 603, L81
- Anderson, J., Cool, A. M., & King, I. R. 2003, “A Probable Dwarf Nova Outburst in the Core of the Globular Cluster M22,” *Astrophysical Journal Letters*, 597, L137
- Heinke, C. O., Grindlay, J. E., Lugger, P. M., Cohn, H. N., Edmonds, P. D., Lloyd, D. A., & Cool, A. M. 2003, “Analysis of the Quiescent Low-Mass X-Ray Binary Population in Galactic Globular Clusters,” *Astrophysical Journal*, 598, 501
- Grindlay, J., Zhao, P., Hong, J. S., Jenkins, J., Kim, D. W., Schlegel, E., Drake, J., Kashyap, V., Edmonds, P., Cohn, H., Lugger, P., & Cool, A. 2003, “Chandra multi-wavelength plane (ChaMPlane) survey: design and initial results,” *Astronomische Nachrichten*, 324, 57
- Grindlay, J. E., Heinke, C. O., Edmonds, P. D., Murray, S. S., & Cool, A. M. 2001, “Chandra Exposes the Core-Collapsed Globular Cluster NGC 6397,” *Astrophysical Journal Letters*, 563, L53
- Taylor, J. M., Grindlay, J. E., Edmonds, P. D., & Cool, A. M. 2001, “Helium White Dwarfs and BY Draconis Binaries in the Globular Cluster NGC 6397,” *Astrophysical Journal Letters*, 533, L169



- Carson\*, J. E., Cool, A. M., & Grindlay, J. E. 2000, “Optical Identification of Faint X-ray Sources in the Core of Omega Centauri,” *Astrophysical Journal*, 532, 461
- Edmonds, P. D., Grindlay, J. E., Cool, A. M., Cohn, H. N., Lugger, P. M., & Bailyn, C. D. 1999, “Cataclysmic Variables and a Candidate Helium White Dwarf in the Globular Cluster NGC 6397,” *Astrophysical Journal*, 516, 250
- Cool, A. M., Grindlay, J. E., Cohn, H. N., Lugger, P. M., & Bailyn, C. D. 1998, “Cataclysmic Variables and a New Class of Faint Ultraviolet Stars in the Globular Cluster NGC 6397,” *Astrophysical Journal Letters*, 508, L75
- King, I. R., Anderson, J., Cool, A. M., & Piotto, G., 1998, “The Luminosity Function of the Globular Cluster NGC 6397 Near the Limit of Hydrogen Burning,” *Astrophysical Journal Letters*, 492, L37
- Piotto, G., Cool, A. M., & King, I. R. 1997, “A Comparison of Deep HST Luminosity Functions of Four Globular Clusters,” *Astronomical Journal*, 113, 1345
- Bailyn, C. D., Rubenstein, E. P., Slavin, S. D., Cohn, H. N., Lugger, P. M., Cool, A. M., & Grindlay, J. E. 1996, “Hubble Space Telescope Observations of the Post Core-Collapse Globular Cluster NGC 6752: A Search for Cataclysmic Variables,” *Astrophysical Journal Letters*, 473, L31
- Cool, A. M., Piotto, G., & King, I. R. 1996, “The Main Sequence and a White Dwarf Sequence in the Globular Cluster NGC 6397,” *Astrophysical Journal*, 468, 655

### Conference Proceedings and Abstracts

- Rivera Sandoval, L., Van Den Berg, M., Heinke, C. O., Cohn, H. N., Lugger, P. M., Freire, P., Anderson, J., Cool, A., Grindlay, J., Edmonds, P., Wijnands, R., Ivanova, N. 2017, “Compact binaries in the globular cluster 47 Tucanae,” *Bull. Amer. Astron. Soc.*, #228.06
- Deveny\*, S., Gallien\*, M., Rickards Vaught\*, R., Waters\*, M., Cool, A., Bellini, A., Anderson, J., Henleywillis, S., Haggard, D., Heinke, C. O. 2016, “A Search for X-ray Emitting Binary Stars in the Globular Cluster Omega Centauri,” *Bull. Amer. Astron. Soc.*, #319.13
- Rivera-Sandoval, L. E., van den Berg, M., Heinke, C. O., Cohn, H. N., Lugger, P. M., Freire, P., Anderson, J., Serenelli, A. M., Althaus, L. G., Cool, A. M., Grindlay, J. E., Edmonds, P. D., Wijnands, R., Ivanova, N. 2016, “Discovery of millisecond pulsar companions in the globular cluster 47 Tucanae,” *Memorie della Societa Astronomica Italiana*, 87, 535
- Bellini, A., Anderson, J., Bedin, L. R., Cool, A., King, I. R., van der marel, R. P. 2015, “Ten distinct stellar populations in omega Centauri”, IAU General Assembly, Meeting 29, 2255540
- Gonzales\*, E., Fries\*, A., & Cool, A. 2015, “Testing the refurbished 30-inch Leuschner telescope and its exoplanet detection capabilities,” *Bull. Amer. Astron. Soc.*, #258.04
- Rivera Sandoval, L. E., van den Berg, M., Heinke, C., Cool, A., Cohn, H. N., Lugger, P. M. 2014, “The Faint Cataclysmic Variable Population of the Globular Cluster 47 Tucanae,” Proceedings of conference in Ulaanbaatar, Mongolia, “Binary Systems, their Evolution and Environments.”
- Henleywillis\*, S., Cool, A., Haggard, D., Heinke, C., & Callanan, P. 2014, “A Deep Census of Low-Luminosity X-ray Sources in Globular Cluster Omega Cen,” Proceedings of conference in Dublin, Ireland, “The X-ray Universe 2014,” ed. J. Ness.

- Lugger, P. M., Cohn, H. N., Cool, A. M., Heinke, C. O. & Anderson, J. 2013, "Identification of Faint Chandra X-ray Sources in the Core-Collapsed Globular Cluster NGC 6752," *Bull. Amer. Astron. Soc.*, #117.08
- Haggard, D., Cool, A. M., Heinke, C. O., Cohn, H. N., Lugger, P. M., van der Marel, R., & Anderson, J. 2013, "A Deep X-ray Search for the Putative IMBH in Omega Centauri," *Amer. Astron. Soc., High Energy Astrophysics Div. Mtg.* #113.01
- Dunn\*, G., Cool, A. M., & Anderson, J. 2013, "Searching for Detached White Dwarf/Main-Sequence Binary Stars in Globular Clusters," *Bull. Amer. Astron. Soc.*, #250.39
- Hernandez\*, C., Cool, A. M., Anderson, J., Strickler, R. R., Heinke, C. O., Cohn, H. N., Lugger, P. M. & Serenelli, A. 2013, "Helium-Core White Dwarfs in the Globular Cluster NGC 6752," *Bull. Amer. Astron. Soc.*, #250.41
- Haggard, D., Cool, A. M., Arias\*, T., Brochmann\*, M. B., Dorfman\*, J., Gafford\*, A., White\*, V., Anderson, J. & Davies, M. B. 2012, "Multiwavelength Constraints on the Dynamical History of Omega Centauri," *Half a century of X-ray Astronomy, Conference held 17-21 Sept. 2012 in Mykonos Island, Greece*
- Hayward, S. G., Cool, A. M., Anderson, J. 2011, "A Search for Helium-Core White Dwarfs in Omega Centauri," *Bull. Amer. Astron. Soc.*, 434.18
- Srinath, S., Cool, A. M., Anderson, J. 2011, "Main Sequence Binary Fraction in Globular Cluster NGC 6397," *Bull. Amer. Astron. Soc.*, 152.16
- Haggard\*, D., Cool, A. M., Arias\*, T., Brochmann\*, M. B., Anderson, J., & Davies, M. B. 2010, "A Deep Multiwavelength View of Binaries in  $\omega$  Centauri," in *American Institute of Physics Conference Series, Vol. 1314, Binary Star Evolution: Mass Loss, Accretion, and Mergers*, eds. V. Kologera and M. van der Sluys (New York: AIP), 157-162
- Haurberg, N., Lubell, G. M. G., Lugger, P. M., Cohn, H. N., Anderson, J., Cool, A., Serenelli, A. M. 2010, "UV-Bright Stellar Populations in the Core of M15," *Bull. Amer. Astron. Soc.*, 42, 338
- Krok, M., Cool, A., Tanner, K. D., Prather, E. 2010, "The Impact of a 5E Conceptual Change Approach to Astronomy Education," *Bull. Amer. Astron. Soc.*, 42, 555
- Krok, M., Tanner, K., Cool, A., & Prather, E. 2008, "The Design and Impact of Planetarium Instruction Based on a 5E Conceptual Change Approach to Astronomy Education," *Bull. Amer. Astron. Soc.*, 40, 236
- Hourihane, A. P., Callanan, P. J., & Cool, A. M. 2007, "An Optical Search for Dwarf Novae in M22," in *Binary Stars as Critical Tools & Tests in Contemporary Astrophysics, IAU Symp. 240*, eds. W.I. Hartkopf, E.F. Guinan and P. Harmanec (Cambridge: Cambridge U. Press), p. 527
- Strickler, R., Cool, A., Anderson, J., Cohn, H., & Lugger, P. 2007, "Two White Dwarf Populations in the Globular Cluster NGC 6397," *Bull. Amer. Astron. Soc.*, 38, 116
- Lopez, L. I. & Cool, A. 2007, "On The Feasibility of Detecting Detached White Dwarf/Main-Sequence Binaries in Globular Clusters," *Bull. Amer. Astron. Soc.*, 38, 116
- Couch, S. M., Cohn, H. N., Lugger, P. M., Cool, A. M., & Anderson, J. 2005, "Identification of Cataclysmic Variables in the Collapsed-Core Globular Cluster NGC 6397," *Bull. Amer. Astron. Soc.*, 37, 1274

- Hourihane, A., Callanan, P. J., & Cool, A. M. 2005, "An Optical Outburst of the Cataclysmic Variable in M22," *IAU Symp.* 230
- Arias, T., Brochmann, M., Dorfman, J. L., White, M. V., & Cool, A. M. 2004, "Cataclysmic Variables and Active Binary Stars in Omega Centauri," *Bull. Amer. Astron. Soc.*, 19.13
- Haggard, D., Dorfman, J. L., Cool, A. M., Anderson, J., Baily, C. D., Edmonds, P. D., Grindlay, J. E. 2003, "Wide-Field Imaging of Omega Centauri with the Advanced Camera for Surveys," *Bull. Amer. Astron. Soc.*, 52.03
- Haggard, D., Fuller, A. D., Dorfman, J. L., Cool, A. M., Anderson, J., Edmonds, P. D., & Davies, M.B. 2002, "A Search for Optical Counterparts of Chandra Sources in Omega Centauri using ACS," *Bull. Amer. Astron. Soc.*, 34, 1104
- Zhao, P., Grindlay, J. E., Edmonds, P., Hong, J., Laycock, S., Schlegel, E. M., Cohn, H., Lugger, P., Rogel, A., Abbott, T., & Cool, A., 2002, "Chandra Multiwavelength Plane (ChaMPlane) Survey: Optical Results," *Bull. Amer. Astron. Soc.*, 34, 1273
- Haggard, D., Fuller, A. D., Dorfman, J. L., Cool, A. M., Anderson, J., Edmonds, P. D., & Davies, M.B. 2002, "A Search for Optical Counterparts of Chandra Sources in Omega Centauri using ACS," *Bull. Amer. Astron. Soc.*, 34, 1104
- Haggard, D., Carlin, J. L., Cool, A. M., Zhao, B., Baily, C. D., Edmonds, P.D., Grindlay, J.E., & Davies, M.B. 2002, "High Resolution X-ray Imaging of Binary Star Populations in Omega Centauri," *Bull. Amer. Astron. Soc.*, 34, 654
- Cohn, H.N., Lugger, P.M., Grindlay, J. E., Edmonds, P.D., Heinke, C.O., Rubenstein, E.P., Cool, A.M., 2002, "Detection of Chandra X-ray Sources in the Collapsed-Core Globular Cluster M30," *Bull. Amer. Astron. Soc.*, 34, 657
- Xie, B., Pryor, C., Gebhardt, K., Williams, T., Cool, A., 2001, "The Study of Central Regions of Omega Centauri: I. Kinematics and Binary Search," *Bull. Amer. Astron. Soc.*, 34, 565
- von Hippel, T. A., Layden, A., Cool, A., Sarajedini, A., 2001, "A White Dwarf Distance to M5 and the RR Lyrae Luminosity Calibration," *Bull. Amer. Astron. Soc.*, 33, 788
- Cool, A. M., Haggard, D., & Carlin, J. L. 2002 "Deep Chandra Imaging of  $\omega$  Centauri," in  $\omega$  Centauri, *A Unique Window into Astrophysics*, eds. F. van Leeuwen, J. D. Hughes, and G. Piotto (A. S. P. Conf. Series, Vol. 265), p. 277
- Cool, A. M. & Bolton, A. S. 2002 "Blue Stars and Binary Stars in NGC 6397: Case Study of a Collapsed-Core Globular Cluster," in *Stellar Collisions and Mergers*, ed. M. Shara (A. S. P. Conf. Series, Vol. 263), p. 163
- Zhao, P., Grindlay, J. E., Edmonds, P., Garcia, M. R., McClintock, J. E., Baily, C. D., Cool, A. M., Cohn, H., Lugger, P., Hoard, D. & Wachter, S. 2000, "Chandra Multiwavelength Plane (ChaMPlane) Survey: Initial Optical Imaging Results for Galactic Center Fields," *Bull. Amer. Astron. Soc.*, 32, 2606Z
- Zhao, P., Grindlay, J. E., Edmonds, P., Garcia, M. R., McClintock, J. E., Murray, S. S., & Cool, A. M., 2000, "Optical Imaging of Serendipitous Chandra Field Sources in the Galactic Plane," *Bull. Amer. Astron. Soc.*, 196, 3702Z
- Grindlay, J. E., Edmonds, P., Garcia, M. R., McClintock, J. E., Murray, S. S., Zhao, P., & Cool, A. 2000, "ChaMPlane: Measuring the Faint X-ray Binary and Stellar X-ray Content of the Galaxy," *Bull. Amer. Astron. Soc.*, 196, 3707G

- Bolton, A. S., Cool, A. M., & Anderson, J. 1999, "Main-Sequence Binary Stars in the Core of NGC 6397," *Bull. Amer. Astron. Soc.*, 195, 7602B
- Cool, A. M., King, I. R., Anderson, J., & Piotto, G. 1999, "White Dwarfs in the Globular Cluster NGC 6397," *Bull. Amer. Astron. Soc.*, 31, 902
- Grindlay, J. E., Metchev, S., & Cool, A. M. 1999, "The Faint X-Ray Source Population in the Collapsed Core Globular Cluster NGC 6397," *Bull. Amer. Astron. Soc.*, 31, 866
- Carson, J. E., Cool, A. M., & Grindlay, J. E. 1998, "Discovery of Cataclysmic Variable Candidates in the Globular Cluster Omega Centauri," *Bull. Amer. Astron. Soc.*, 30, 1347
- Cool, A. M. 1998, "Measuring Globular Cluster Mass Functions with HST," in *The Stellar Initial Mass Function*, eds. G. Gilmore and D. Howell (A. S. P. Conf. Series, Vol. 142), p. 139
- Cool, A. M., Edmonds, P. E., & Grindlay, J. E. 1998, "Cataclysmic Variables and Possible Low-Mass White Dwarfs in the Globular Cluster NGC 6397," *Bull. Amer. Astron. Soc.*, 30, 1301
- Cool, A. M. 1997, "Binary Stars Below the Turnoff in Globular Cluster Color-Magnitude Diagrams," in *Advances in Stellar Evolution*, eds. R. T. Rood and A. Renzini (Cambridge: Cambridge U. Press), p. 191
- Cool, A. M. 1997, "Recent Results from HST Studies of Globular Clusters," *Bull. Amer. Astron. Soc.*, 29, 798
- Cool, A. M., Sosin, C., and & King, I. R. 1997, "HST Observations of White Dwarfs in the Globular Cluster NGC 6397" in *White Dwarfs*, eds. J. Isern, M. Hernanz and E. Garcia-Berro (Dordrecht: Kluwer Academic Publishing), p. 129
- Edmonds, P. D., Bailyn, C. D., Cohn, H. N., Cool, A. M., Gilliland, R. L., Grindlay, J. E., Livio, M., Lugger, P. M., Meylan, G., Petro, L. D. 1997, "Spectroscopy of Globular Cluster Binaries in 47 Tucanae and NGC 6397," *Bull. Amer. Astron. Soc.*, 29, 1279
- King, I. R., Cool, A. M., Piotto, G., Anderson, J., & Sosin, C. 1997, "Globular-Cluster Luminosity and Mass Functions from HST Data," in *Advances in Stellar Evolution*, eds. R. T. Rood and A. Renzini (Cambridge: Cambridge U. Press), p. 30
- Cool, A. M., Sosin, C., King, I. R., Cohn, H. N., Lugger, P. M., Bailyn, C. D., & Grindlay, P. M. 1996, "HST Observations of Cataclysmic Variables, White Dwarfs, and Other UV-Bright Stars in the Globular Cluster NGC 6397," *Bull. Amer. Astron. Soc.*, 28, 1371
- Grindlay, J. E., Cool, A. M., Bailyn, C. D., Cohn, H. N., & Lugger, P. M. 1996, "HST/FOS Discovery of CVs and (?) in the Globular NGC 6397," *Bull. Amer. Astron. Soc.*, 28, 1388

*Publications Prior to Appointment at SFSU*

### **Refereed Journals**

- Callanan, P. J., Grindlay, J. E., & Cool, A. M. 1995, "Optical Observations of 4U 1915-05, and the Stability of the Long Term Ephemeris," *Pub. Astronom. Soc. Japan*, 47, 153
- Cool, A. M., Grindlay, J. E., Bailyn, C. D., Callanan, P. J., & Hertz, P. 1995, "The Faint X-Ray Sources in and out of  $\omega$  Centauri: X-ray Observations and Optical Identifications," *Astrophysical Journal*, 438, 719

- Cool, A. M., Grindlay, J. E., Cohn, H. N., Lugger, P. M., & Slavin, S. D. 1995, "Discovery of Candidate Cataclysmic Variables in the Post-Core-Collapse Globular Cluster NGC 6397," *Astrophysical Journal*, 439, 695
- Grindlay, J. E., Cool, A. M., Callanan, P. C., Bailyn, C. D., Cohn, H. N., & Lugger, P. M. 1995, "Spectroscopic Identification of Probable Cataclysmic Variables in the Globular Cluster NGC 6397," *Astrophysical Journal Letters*, 455, L47
- King, I. R., Sosin, C., & Cool, A. M. 1995, "Mass Segregation in the Globular Cluster NGC 6397," *Astrophysical Journal Letters*, 452, L33
- Sosin, C., & Cool, A. M. 1995, "Discovery of Faint Ultraviolet Sources in the Globular Cluster NGC 6624 with the Hubble Space Telescope," *Astrophysical Journal Letters*, 452, L29
- Cool, A. M., Grindlay, J. E., Krockenberger, M., & Bailyn, C. D. 1993, "Discovery of Multiple Low-Luminosity X-ray Sources in NGC 6397," *Astrophysical Journal Letters*, 410, L103

### Conference Proceedings and Abstracts

- Grindlay, J. E. & Cool, A. M. 1996, "HST/FOS Discovery of Probable CVs in the Core of NGC 6397," in *Dynamical Evolution of Star Clusters—Confrontation of Theory and Observations*, eds. P. Hut and J. Makino (Dordrecht: Kluwer Academic Publishing), p. 349
- Brocato, E., Cassisi, S., Castellani, V., Cool, A. M., King, I. R., & Piotto, G. P. 1996, "Low Luminosity Main Sequence Stars: Comparison between NGC 6397 and the Solar Neighborhood," in *Formation of the Galactic Halo... Inside and Out*, eds. H. Morrison and A. Sarajedini (A. S. P. Conf. Series, Vol. 92), p. 76
- King, I. R., Cool, A. M., & Piotto, G. 1996, "Faint Mass Functions in Globular Clusters from HST Observations," in *Formation of the Galactic Halo... Inside and Out*, eds. H. Morrison and A. Sarajedini (A. S. P. Conf. Series, Vol. 92), p. 277
- Piotto, G., Cool, A. M., & King, I. R. 1996, "Stellar Luminosity and Mass Functions of Globular Clusters," in *Dynamical Evolution of Star Clusters—Confrontation of Theory and Observations*, eds. P. Hut and J. Makino (Dordrecht: Kluwer Academic Publishing), p. 71
- Cool, A. M. & King, I. R. 1995, "Photometry of WFPC2 Images in Crowded Stellar Fields," in *Calibrating Hubble Space Telescope: Post Servicing Mission*, eds. A. Koratkar & C. Leitherer (Baltimore: Space Telescope Science Institute), p. 290
- Cool, A. M., Grindlay, J. E., Cohn, H. N., Lugger, P. M., & Slavin, S. D. 1994, "Identification of Candidate Cataclysmic Variables in the Post-Core-Collapse Globular Cluster NGC 6397," in *IAU 22 General Assembly Astronomy Posters*, ed. H. van Woerden (Sliedrecht: Twin Press), p. 90
- Sosin, C., King, I. R., & Cool, A. M. 1994, "HST Observations of Mass Segregation in the Globular Cluster NGC 6397," *Bull. Amer. Astron. Soc.*, 26, 1487
- Cool, A. M. 1993, *A Search for Cataclysmic Variables in Globular Clusters*, Ph.D. thesis, Harvard University
- Cool, A. M., Grindlay, J. E., Krockenberger, M., & Bailyn, C. D. 1993, "Discovery of Multiple Low Luminosity X-ray Sources in NGC 6397," in *Dynamics of Globular Clusters*, eds. S. Djorgovski and G. Meylan (A. S. P. Conf. Series, Vol. 50), p. 307

- Grindlay, J. E. & Cool, A. M. 1993, "Discovery of Low Luminosity X-Ray Sources and CV Candidates in NGC 6752," *Bull. Amer. Astron. Soc.*, 25, 1392
- Cool, A. M. 1992, "A Search for Cataclysmic Variables in Globular Clusters," *Bull. Amer. Astron. Soc.*, 24, 1294
- Bailyn, C. D., Cool, A., Grindlay, J. E., Cohn, H. N., Lugger, P. M., & McClure, R. D. 1991, "The Optical Counterpart of the X-Ray Source in NGC 6712," in *The Formation and Evolution of Star Clusters*, ed. K. Janes (A. S. P. Conf. Series, Vol. 13), p. 363
- Grindlay, J. E., Cool, A. M., & Bailyn, C. D. 1991, "CVs and Millisecond Pulsar Progenitors in Globular Clusters," in *The Formation and Evolution of Star Clusters*, ed. K. Janes (A. S. P. Conf. Series, Vol. 13), p. 396
- Cool, A. M., & Ho, P. T. P. 1990, "Structure and Kinematics of NH<sub>3</sub> Cores in G10.6-0.4," in *Atoms, Ions, and Molecules: New Results in Spectral Line Astrophysics*, eds. A. D. Haschick and P. T. P. Ho (A. S. P. Conf. Series, Vol. 16), p. 233
- Cool, A. M., & Ho, P. T. P. 1989, "Spatial and Velocity Structure of NH<sub>3</sub> Cores in G10.6-0.4," *Bull. Amer. Astron. Soc.*, 21, 1090
- Grindlay, J. E., Cool, A. M., Bailyn, C. D., Kuhn, O., & Hertz, P. 1989, "The Brightest Low Luminosity X-Ray Sources in Globular Clusters: CVs or LMXBs?" *Bull. Amer. Astron. Soc.*, 21, 1221