

MARCEL AGÜEROS

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employment & education	COLUMBIA UNIVERSITY, NEW YORK, NY	2010–present
	Associate Professor of Astronomy	2017–present
	Assistant Professor of Astronomy	2010–2017
	COLUMBIA ASTROPHYSICS LABORATORY, COLUMBIA UNIVERSITY National Science Foundation (NSF) Astronomy & Astrophysics Post-doctoral Fellow	2006–2010
	UNIVERSITY OF WASHINGTON, SEATTLE, WA M.S. & Ph.D., Astronomy	2000–2006
EMMANUEL COLLEGE, UNIVERSITY OF CAMBRIDGE, U.K. M.Phil., Physics	1996–1998	
COLUMBIA COLLEGE, COLUMBIA UNIVERSITY B.A., Astronomy, <i>magna cum laude</i>	1992–1996	
honors	Kavli Frontiers of Sciences Fellow	2016
	Recipient, NSF Presidential Early Career Award for Scientists and Engineers (PECASE)	2016
	Recipient, Columbia University Distinguished Faculty Award	2016
	Recipient, NSF Faculty Early Career Development (CAREER) award	2013
	Selected participant, Summer Leadership Institute, Society for the Advancement of Chicanos and Native Americans in Science (SACNAS)	2011
	Recipient, Certificate of Excellence in Recognition of Distinguished Personal Initiative on Diversity in Astronomy, National Society of Black Physicists (NSBP)	2008
	Recipient, Trailblazer Award, Latino Alumni Association of Columbia University	2006
leadership	TRUSTEE, AMERICAN ASTRONOMICAL SOCIETY (AAS) Elected member of the AAS's governing body.	2017–2020
	MEMBER, SPACE STUDIES BOARD COMMITTEE ASSESSING THE NSF'S 2015 GEOSPACE PORTFOLIO REVIEW Evaluated NSF's review of its Geospace portfolio against Decadal Survey priorities.	2016
	CONVENER, <i>Star Clusters From Space, From the Ground, and Over Time</i> Co-organizer of two-day splinter session at 19 th Cool Stars meeting, Uppsala, Sweden.	2016
	MEMBER, EXPERT PANEL: SCIENCES OF THE EARTH AND SPACE, RESEARCH FOUNDATION – FLANDERS (BELGIUM) Serve on panel evaluating proposals to the Flemish equivalent of the NSF.	2015–present
	DIRECTOR, BRIDGE TO THE PH.D. PROGRAM IN THE NATURAL SCIENCES Manage Columbia program that prepares underrepresented post-baccalaureates for transition into Ph.D. programs. See http://bitly.com/cubridge	2010–present
	MEMBER, NSF DIVISION OF ASTRONOMICAL SCIENCES PORTFOLIO REVIEW COMMITTEE Produced guidelines for implementing Astro2010 Decadal Survey recommendations for ground-based astronomy in light of budgetary realities.	2011–2012
	LEAD SCIENTIST, OPEN CLUSTER SURVEY, PALOMAR TRANSIENT FACTORY (PTF) Coordinated survey of five open clusters with PTF.	2010–2012

**research
interests****time-domain science:**

- Studies of the stellar age-rotation-activity relation with open clusters
facilities/data sets used: Chandra, Swift, XMM-Newton, & archival X-ray data, MDM 2.4-m & WIYN 3.5-m telescopes, Kepler & PTF
- Searches for gravitational microlensing events in time-domain surveys
Large Synoptic Survey Telescope (LSST), MDM 2.4-m telescope, PTF

compact-object/survey science:

- Observational and theoretical constraints on the white dwarf initial-final mass relation
Sloan Digital Sky Survey (SDSS), Apache Point Observatory (APO) 3.5-m telescope
- Searches for companions to low-mass white dwarfs and for wide white dwarf pairs
Chandra & XMM-Newton, Gemini 8.0-m telescopes, Green Bank Telescope, SDSS
- Characterization of large samples of X-ray emitting stars
APO 3.5 m, Chandra, ROSAT All-Sky Survey (RASS), SDSS, & Two Micron All Sky Survey (2MASS)
- Observations of supernova remnants (SNRs)
Chandra, Very Large Array, WIYN 3.5-m telescope, & XMM-Newton

**research
grants**

*≈\$1.4M as
PI since 2009*

low-mass stars

A UV SPECTROSCOPIC SURVEY OF PERIODIC M DWARFS IN THE HYADES <i>HST Cycle 25 Guest Observer Program</i>	2017
A UV SPECTROSCOPIC SNAPSHOT SURVEY OF LOW-MASS STARS IN THE HYADES <i>HST Cycle 25 Snapshot Program</i>	2017
WHY WE SHOULD KEEP POKING THE BEEHIVE: SIMULTANEOUS K2 AND SPECTROSCOPIC OBSERVATIONS OF PRAESEPE <i>K2 Cycle 5 Guest Observer Program</i> Award: \$50,000	2017
HOW THE OTHER HALF LIVES: COMPLETING THE K2 CENSUS OF LOW-MASS HYADS <i>K2 Cycle 4 Guest Observer Program</i> Award: \$40,000	2016
A SNAPSHOT SURVEY OF THE HYADES: TESTING MODELS FOR MAGNETIC SATURATION <i>XMM-Newton AO-15 Guest Observer Program</i> Award: \$98,262	2016
HYPra: ANCHORING THE ROTATION-ACTIVITY RELATION AT 600 MYR NSF Astronomy & Astrophysics Research Grant Award: \$206,066	2015
FIXING STELLAR CHRONOMETERS WITH OPEN CLUSTERS NSF CAREER Award: \$922,185	2013
DEEP IMAGING OF M37, A BETTER HYADES <i>Chandra Cycle 13 General Observer Program</i> Award: \$126,217	2011
compact objects	
THE MASSIVE COMPANIONS OF LOW-MASS WHITE DWARFS <i>Chandra Cycle 17 General Observer Program</i> Award: \$34,823	2016

research grants <i>continued</i>	SEARCHING FOR MILLISECOND PULSARS IN EXTREMELY LOW-MASS WHITE DWARF BINARIES National Radio Astronomy Observatory Student Observing Support grant (Jeff Andrews) Award: \$35,000	2012
	SEARCHING FOR MILLISECOND PULSARS IN EXTREMELY LOW-MASS WHITE DWARF BINARIES <i>Chandra</i> Cycle 12 General Observer Program Award: \$23,182	2010
	THE COOLEST X-RAY EMITTING WDS? <i>XMM-Newton</i> AO-8 Guest Observer Program Award: \$56,900	2009
other grants <i>≈\$1.4M as PI since 2009</i>	departmental initiatives CUPUC: A PARTNERSHIP WITH ASTRONOMERS AT THE PONTIFICIA UNIVERSIDAD CATÓLICA DE CHILE Columbia University Provost's Grants Program Award: \$50,000	2016
	TEAMING UP TO PREPARE FOR THE NEXT DECADE IN TIME-DOMAIN ASTROPHYSICS: A JOINT WORKSHOP WITH THE PONTIFICIA UNIVERSIDAD CATÓLICA DE CHILE Columbia University Provost's Grants Program Award: \$25,000	2014
	THE LARGE SYNOPTIC SURVEY TELESCOPE AND THE FUTURE OF ASTRONOMY Columbia University Provost's Grants Program Award: \$25,000	2013
	COLUMBIA'S PARTICIPATION IN THE CORNELL SPACE GRANT CONSORTIUM New York NASA Space Grant Consortium Total award: \$151,820	2010–2016
	Bridge to the Ph.D. Program in the Natural Sciences WE ARE FAMILY NSF (unsolicited proposal) Award: \$30,000	2017
	A BRIDGE TO THE FUTURE NSF (unsolicited proposal) Award: \$403,210	2016
	A RESEARCH-INTENSIVE PREPARATION FOR THE TRANSITION TO GRADUATE SCHOOL: THE BRIDGE TO THE PH.D. IN THE NATURAL SCIENCES PROGRAM NSF (unsolicited proposal) Award: \$692,321	2010
	A BRIDGE TO THE ASTRONOMY PH.D. AT COLUMBIA U. New York NASA Space Grant Consortium Total award: \$20,000	2008, 2009
courses taught	ASTRONOMY W/UN1836: STARS AND ATOMS Introductory-level course on stellar evolution and nucleosynthesis. Enrollment: 35 (2016), 40 (2017)	Spring 2016, Fall 2017
	ASTRONOMY C/W/UN1403: EARTH, MOON, AND PLANETS Introductory-level course on the Solar System. Enrollment: 56 (2010), 43 (2012), 42 (2015), 55 (2017)	Fall 2010, 2012, Spring 2015, 2017

courses taught <i>continued</i>	<p>ASTRONOMY C/UN3101: MODERN STELLAR ASTROPHYSICS Spring 2013, Fall 2014, Fall 2016 Survey of stellar structure and evolution for physical-sciences majors. Enrollment: 17 (2013), 8 (2014), 9 (2016)</p> <p>ASTRONOMY G9004: RESEARCH SEMINAR Spring 2011, 2014 Graduate seminar focused on how to present research. Enrollment: 9 (2011), 10 (2014)</p> <p>ASTRONOMY G9002: HIGH-IMPACT PAPERS IN ASTRONOMY & ASTROPHYSICS Spring 2012 <i>Co-taught with Zoltán Haiman</i> Graduate seminar centered on discussing high-impact papers across a range of sub-fields. Enrollment: 15</p> <p>ASTRONOMY G9003: GRADUATE SEMINAR Fall 2011 Seminar examining the Astro2010 Decadal Survey. Enrollment: 13</p>
students supervised	<p>Ph.D. thesis advisor</p> <p>ALEJANDRO NÚÑEZ 2013–present Using the open cluster M37 to characterize the relationship between stellar rotation and magnetic activity at 500 Myr.</p> <p>STEPHANIE DOUGLAS (<i>defended June 16, 2017</i>) 2012–2017 Studying the relationship between rotation and activity in low-mass stars in different open clusters of the same age.</p> <p>JEFF ANDREWS (<i>defended September 16, 2015</i>) 2010–2015 Investigated the properties of tight and wide double white dwarf binaries from a theoretical and observational perspective.</p> <p>Ph.D. thesis committee member</p> <p>JINGJING CHEN 2016–present Using hierarchical Bayesian method to infer the population properties of exoplanets.</p> <p>STEVEN MOHAMMED 2016–present Constructing and analyzing catalog of Galactic Plane UV sources from <i>GALEX</i> data.</p> <p>first-/second-year graduate project</p> <p>ROSE GIBSON 2016–2017 Examining magnetic activity in the Hyades as traced by ultraviolet emission.</p> <p>ALEX TEACHEY 2016–2017 Using PTF archive to test recoverability of stellar rotation periods in LSST data.</p> <p>ADRIAN PRICE-WHELAN 2011–2012 Used the PTF archive to develop search tools for microlensing events.</p> <p>JENNA LEMONIAS 2009–2010 Used PTF data to characterize stellar rotation in the middle-aged open cluster Praesepe.</p> <p>DUANE LEE 2007–2008 Analyzed optical spectra of nuclear star clusters to detect presence of black holes.</p> <p>post-baccalaureate research experience</p> <p>DAVID JAIMES 2013–2015 Examined rotational properties of stars in the young open cluster Alpha Persei.</p>

students supervised <i>continued</i>	EMILY BOWSHER	2011–2014
	Examined membership, activity, and rotation in the old open cluster NGC 752.	
	EMILY NEWSOM	2008–2009
	Analyzed <i>Chandra</i> and <i>XMM-Newton</i> observations of cool WDs and of candidate isolated neutron stars.	
	undergraduate senior thesis	
	MARISA PISANO	2014–2016
	Searched for new SNRs in the galaxy NGC 6946 using deep WIYN images.	
	DAVID FIERROZ	2010–2011
	Investigated relation between rotation and chromospheric activity in Praesepe.	
post-docs supervised	ANDREW MANN (<i>Hubble Post-doctoral Fellow</i>)	2017–present
	JASON CURTIS (<i>NSF Astronomy & Astrophysics Post-doctoral Fellow</i>)	2016–present
colloquia & talks	[1] Astronomy Colloquium, Five College Astronomy Department, University of Massachusetts, Sep. 28, 2017	
	[2] Contributed talk, “ages ² : Taking stellar ages to the next power,” Elba, Italy, Sep. 19, 2017	
	[3] Astronomy Colloquium, Instituto de Astrofísica, Pontificia Universidad Católica, Santiago, Chile, May 23, 2017	
	[4] Contributed talk, Latin American XV Regional IAU Meeting, Cartagena, Colombia, Oct. 6, 2016	
	[5] Astronomy Colloquium, University of Texas, Aug. 30, 2016	
	[6] Astronomy Colloquium, Pennsylvania State University, Apr. 20, 2016	
	[7] Astronomy Seminar, Imperial College, London, U.K., Oct. 7, 2015	
	[8] Astronomy Colloquium, University of Rochester, Mar. 31, 2014	
	[9] Contributed talk, “What asteroseismology has to offer to astrophysics,” International Francqui Symposium (in honor of Conny Aerts), Brussels, Belgium, Dec. 4, 2013	
	[10] Invited talk, Tri-State Astronomy Conference, Sep. 27, 2013	
	[11] Invited talk, Graduate Education in Physics Conference, College Park, MD, Feb. 1, 2013	
	[12] Invited talk, SACNAS national conference, Seattle, WA, Oct. 12, 2012	
	[13] Invited talk, “Determining the Ages of Low-Mass Stars and Brown Dwarfs” splinter session, 17 th Cambridge Workshop on Cool Stars, Jun. 25, 2012	
	[14] Astronomy Colloquium, Yale University, Apr. 5, 2012	
	[15] Astronomy Colloquium, University of Toronto, Mar. 23, 2012	
	[16] Invited talk, SACNAS National Conference, San José, CA, Oct. 28, 2011	
	[17] Astronomy Colloquium, Pennsylvania State University, Sep. 28, 2011	
	[18] Invited talk, NSBP/NSHP Joint Annual Conference, Austin, TX, Sep. 24, 2011	
	[19] Steward Observatory/NOAO Joint Colloquium, Apr. 28, 2011	
	[20] Astrophysics Seminar, Rutgers University, Apr. 22, 2011	
	[21] Cape Town Astronomy & Cosmology Colloquium, South African Astronomical Observatory, Apr. 19, 2011	
	[22] Astronomy Seminar, Center for Interdisciplinary Exploration and Research in Astronomy, Northwestern University, Apr. 5, 2011	
	[23] Physics Colloquium, University of Wisconsin-Milwaukee, Apr. 1, 2011	