

MARCEL AGÜEROS

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fields of specialization • properties of low-mass, main-sequence stars: empirical calibrations of age-rotation-activity relation, observational manifestations of rotation-activity relation
• identification and characterization of wide binaries: determination of initial-final mass relation for white dwarfs, tests of chemical tagging and of theories of modified gravity

education UNIVERSITY OF WASHINGTON, SEATTLE, WA 2002, 2006
M.S. & Ph.D., Astronomy

EMMANUEL COLLEGE, UNIVERSITY OF CAMBRIDGE, UK 1998
M.Phil., Physics

COLUMBIA COLLEGE, COLUMBIA UNIVERSITY, NEW YORK, NY 1996
B.A., Astronomy, *magna cum laude*

dissertations Ph.D.: “Candidate Isolated Neutron Stars and Other Stellar X-ray Sources from the ROSAT All-Sky Survey (RASS) and Sloan Digital Sky Survey (SDSS)”
Advisor: Scott Anderson
Published as Agüeros, M. et al. 2006, *Candidate Isolated Neutron Stars and Other Optically Blank X-ray Fields Identified from the RASS and SDSS Surveys*, *AJ*, 131, 1740, and Agüeros, M. et al. 2009, *X-Ray Emitting Stars Identified from the RASS and the SDSS*, *ApJS*, 181, 444

M.Phil.: “The Bulk Expansion of Supernova Remnant Cassiopeia A”
Advisor: Dave Green
Published as Agüeros, M. & Green, D. 1999, *The Bulk Expansion of SNR Cassiopeia A at 151 MHz*, *MNRAS*, 305, 957

appointments DEPARTMENT OF ASTRONOMY, COLUMBIA UNIVERSITY 2010-present
Associate Professor of Astronomy 2017-present
Assistant Professor of Astronomy 2010-2017
on parental leave 2013-2014, 2015-2016

ASTROPHYSICS LABORATORY, COLUMBIA UNIVERSITY 2006-2010
National Science Foundation (NSF) Astronomy & Astrophysics Post-doctoral Fellow (AAPF)

courses taught **undergraduate**

ASTRONOMY UN1836: STARS AND ATOMS Spring 2016, Fall 2017
Enrollment: 34 (2016), 41 (2017)

ASTRONOMY UN1403: EARTH, MOON, AND PLANETS Fall 2010, 2012, Spring 2015, 2017
Enrollment: 56 (2010), 43 (2012), 42 (2015), 54 (2017)

ASTRONOMY UN3101: MODERN STELLAR ASTROPHYSICS Spring 2013, Fall 2014, Fall 2016
Enrollment: 17 (2013), 7 (2014), 10 (2016)

graduate

ASTRONOMY G9002: STELLAR AGES: PROMISES AND CHALLENGES Spring 2018
Enrollment: 7

courses taught <i>continued</i>	ASTRONOMY G9004: RESEARCH SEMINAR Enrollment: 9 (2011), 12 (2014)	Spring 2011, 2014
	ASTRONOMY G9002: HIGH-IMPACT PAPERS IN ASTROPHYSICS <i>Co-taught with Zoltán Haiman</i> Enrollment: 15	Spring 2012
	ASTRONOMY G9003: THE ASTRO2010 DECADAL SURVEY Enrollment: 13	Fall 2011
students supervised	Ph.D. thesis advisor	
	ALEJANDRO NÚÑEZ (<i>defending Aug. 6, 2018</i>) Dissertation title: “Exploring the Stellar Age-Rotation-Activity Relation Using the α -Per and M37 Open Clusters”	2013-present
	STEPHANIE DOUGLAS (<i>defended Jun. 16, 2017</i>) “Open Clusters as Laboratories for Stellar Spin Down and Magnetic Activity Decay” <i>Now a NSF AAFP at the Harvard-Smithsonian Center for Astrophysics</i>	2012-2017
	JEFF ANDREWS (<i>defended Sep. 16, 2015</i>) “Double White Dwarfs as Probes of Single and Binary Star Evolution” <i>Now a Dark Cosmology Centre post-doctoral fellow at Niels Bohr Institute, University of Copenhagen, Denmark</i>	2010-2015
	Ph.D. thesis committee member	
	ALEX TEACHEY “Finding Exomoons at Large Semi-Major Axes”	2018-present
	JINGJING CHEN “Characterizing Exoplanet Population with Hierarchical Bayesian Modeling”	2016-present
	STEVEN MOHAMMED “PUGS: Planar UV Galactic Survey”	2016-present
	first-/second-year graduate project advisor	
	ROSE GIBSON	2016-2017
	ALEX TEACHEY	2016-2017
	ADRIAN PRICE-WHELAN	2011-2012
JENNA LEMONIAS	2009-2010	
DUANE LEE	2007-2008	
post-baccalaureate research experience advisor		
DAVID JAIMES	2013-2015	
EMILY BOWSHER	2011-2014	
EMILY NEWSOM	2008-2009	
undergraduate senior thesis advisor		
MARISA PISANO “Revisiting Optical Supernova Remnants in NGC 6946”	2014-2016	
DAVID FIERROZ “Observing the Praesepe Cluster to Investigate the Age-Activity Relation”	2010-2011	
post-docs supervised	ANDREW MANN (<i>Hubble Post-doctoral Fellow</i>) <i>Now a faculty member at the University of North Carolina, Chapel Hill</i>	2017-present
	JASON CURTIS (<i>NSF AAFP</i>)	2016-present

publications

- impact factors for main astronomy journals (as of 2016, unless otherwise noted):
 - *Astronomical Journal (AJ)*: 3.773
 - *Astrophysical Journal (ApJ)*: 5.533
 - *Astrophysical Journal Letters (ApJL)*: 5.522
 - *Astrophysical Journal Supplement Series (ApJS)*: 8.955
 - *Monthly Notices of the Royal Astronomical Society (MNRAS)*: 4.921 (2018)
 - *Publications of the Astronomical Society of the Pacific (PASP)*: 4.446
- bold numbers are papers led by members of my group at Columbia, or to which I contributed significantly, after joining the faculty in 2010
- ^s indicates that the author was a Columbia graduate student at the time of publication
- Web of Science: *h*-index: 33, citations (without self-citations): 9663

[1] A NEW LOOK AT AN OLD CLUSTER: THE MEMBERSHIP, ROTATION, AND MAGNETIC ACTIVITY OF LOW-MASS STARS IN THE 1.3-GYR-OLD OPEN CLUSTER NGC 752

Agüeros, M., Bowsher, E., Bochanski, P., et al., *ApJ* in press, arXiv/1804.02016

[2] A SERENDIPITOUS PULSAR DISCOVERY IN A SEARCH FOR A COMPANION TO A LOW-MASS WHITE DWARF

Andrews, J., **Agüeros, M.**, Camilo, F., Kilic, M., Gianninas, A., Brown, W., Heinke, C. 2018, *Research Notes of the AAS*, 2, 60

[3] VALIDATING TGAS WIDE BINARIES WITH GAIA DR2 RADIAL VELOCITIES AND PARALLAXES

Andrews, J., Chanamé, J., & **Agüeros, M.** 2018, *Research Notes of the AAS*, 2, 29

[4] WIDE BINARIES IN TYCHO-GAIA II: METALLICITIES, ABUNDANCES, AND PROSPECTS FOR CHEMICAL TAGGING

Andrews, J., Chanamé, J., & **Agüeros, M.** 2018, *MNRAS*, 473, 5393

[5] WIDE BINARIES IN TYCHO-GAIA: SEARCH METHOD AND THE DISTRIBUTION OF ORBITAL SEPARATIONS

Andrews, J., Chanamé, J., & **Agüeros, M.** 2017, *MNRAS*, 472, 675

[6] THE FACTORY AND THE BEEHIVE III. PTFEB132.707+19.810, A LOW-MASS ECLIPSING BINARY IN PRAESEPE OBSERVED BY PTF AND K2

Kraus, A., Douglas, S., Mann, A., **Agüeros, M.**, et al. 2017, *ApJ*, 845, 72

[7] POKING THE BEEHIVE FROM SPACE: K2 ROTATION PERIODS FOR PRAESEPE

^sDouglas, S., **Agüeros, M.**, Covey, K., Kraus, A. 2017, *ApJ*, 842, 83

[8] CHROMOSPHERIC AND CORONAL ACTIVITY IN THE 500-MYR-OLD OPEN CLUSTER M37: EVIDENCE FOR CORONAL STRIPPING?

^sNúñez, A., **Agüeros, M.**, Covey, K., López-Morales, M. 2017, *ApJ*, 834, 176

[9] THE X-RAY LUMINOSITY FUNCTION OF M37 AND THE EVOLUTION OF CORONAL ACTIVITY IN LOW-MASS STARS

^sNúñez, A. & **Agüeros, M.** 2016, *ApJ*, 830, 44

[10] TODAY A DUO, BUT ONCE A TRIO? THE DOUBLE WHITE DWARF HS 2220+2146 MAY BE A POST-BLUE STRAGGLER BINARY

^sAndrews, J., **Agüeros, M.**, Brown, W., et al. 2016, *ApJ*, 828, 38

highlighted by AAS Nova. See: <http://bit.ly/2AUyTbh>

[11] MASSIVE DOUBLE WHITE DWARFS AND THE AM CVn BIRTHRATE

Kilic, M., Brown, W., Heinke, C., Gianninas, A., Benni, P., **Agüeros, M.** 2016, *MNRAS*, 460, 4176

[12] WHY ARE RAPIDLY ROTATING M DWARFS IN THE PLEIADES SO (INFRA)RED? NEW PERIOD MEASUREMENTS CONFIRM ROTATION-DEPENDENT COLOR OFFSETS FROM THE CLUSTER SEQUENCE

Covey, K., **Agüeros, M.**, Law, N., et al. 2016, *ApJ*, 822, 81

publications
continued

- [13] K2 ROTATION PERIODS FOR LOW-MASS HYADS AND THE IMPLICATIONS FOR GYROCHRONOLOGY
^sDouglas, S., **Agüeros, M.**, Covey, K., et al. 2016, *ApJ*, 822, 47
- [14] CONSTRAINTS ON THE INITIAL-FINAL MASS RELATION FROM WIDE DOUBLE WHITE DWARFS
^sAndrews, J., **Agüeros, M.**, Gianninas, A., Kilic, M., Dhital, S., Anderson, S. 2015, *ApJ*, 815, 63
- [15] LINKING STELLAR CORONAL ACTIVITY AND ROTATION AT 500 MYR: A DEEP CHANDRA OBSERVATION OF M37
^sNúñez, A., **Agüeros, M.**, Covey, K., et al. 2015, *ApJ*, 809, 161
- [16] ULTRACOOOL WHITE DWARFS AND THE AGE OF THE GALACTIC DISC
 Gianninas, A., [4 authors], ^sAndrews, J., Canton, P., **Agüeros, M.** 2015, *MNRAS*, 449, 3966
- [17] THE MASS DISTRIBUTION OF COMPANIONS TO LOW-MASS WHITE DWARFS
^sAndrews, J., ^sPrice-Whelan, A., & **Agüeros, M.** 2014, *ApJL*, 797, L32
- [18] THE FACTORY AND THE BEEHIVE II. ACTIVITY AND ROTATION IN PRAESEPE AND THE HYADES
^sDouglas, S., **Agüeros, M.**, Covey, K., et al. 2014, *ApJ*, 795, 161
- [19] FOUND: THE PROGENITORS OF AM CVN AND SUPERNOVAE .IA
 Kilic, M., [4 authors], **Agüeros, M.**, et al. 2014, *MNRAS*, 438, L26
highlighted by Chandra X-ray Observatory Photo Album. See: <http://bit.ly/1cBAFzz>
- [20] STATISTICAL SEARCHES FOR MICROLENSING EVENTS IN LARGE, NON-UNIFORMLY SAMPLED TIME-DOMAIN SURVEYS: A TEST USING PALOMAR TRANSIENT FACTORY DATA
^sPrice-Whelan, A., **Agüeros, M.**, Fournier, A., et al. 2014, *ApJ*, 781, 35
- [21] THE RUNAWAY BINARY LP400–22 IS LEAVING THE GALAXY
 Kilic, M., [4 authors], **Agüeros, M.**, et al. 2013, *MNRAS*, 434, 3582
- [22] MEASURING THE AGES OF LOW-MASS STARS AND BROWN DWARFS
 Bochanski, J., Hawley, S., Covey, K., **Agüeros, M.**, et al. 2013, *Astronomische Nachrichten*, 334, 44
- [23] COMMON PROPER-MOTION WIDE WHITE DWARF BINARIES SELECTED FROM THE SDSS
^sAndrews, J., **Agüeros, M.**, Belczynski, K., Dhital, S., Kleinman, S., West, A. 2012, *ApJ*, 757, 170
- [24] THE PTF PHOTOMETRIC CATALOG 1.0
 Ofek, E., [13 authors], **Agüeros, M.**, et al. 2012, *PASP*, 124, 854
- [25] THE ELM SURVEY. IV. 24 WHITE DWARF MERGER SYSTEMS
 Kilic, M., Brown, W., Allende Prieto, C., Kenyon, S., Heinke, C., **Agüeros, M.**, Kleinman, S. 2012, *ApJ*, 751, 141
- [26] THE PTF PHOTOMETRIC CALIBRATION
 Ofek, E., [13 authors], **Agüeros, M.**, et al. 2012, *PASP*, 124, 62
- [27] CATAclysmic VARIABLES FROM THE SDSS. VIII. THE FINAL YEAR (2007-2008)
 Szkody, P., [8 authors], **Agüeros, M.**, et al. 2011, *AJ*, 142, 181
- [28] THE FACTORY AND THE BEEHIVE I. ROTATION PERIODS FOR LOW-MASS STARS IN PRAESEPE
Agüeros, M., Covey, K., ^sLemonias, J., et al. 2011, *ApJ*, 740, 110
- [29] NO CONFIRMED NEW ISOLATED NEUTRON STARS IN THE SDSS DATA RELEASE 4
Agüeros, M., Posselt, B., Anderson, S., et al. 2011, *AJ*, 141, 176
- [30] PTF10NVG: AN OUTBURSTING CLASS I PROTOSTAR IN THE PELICAN/NORTH AMERICAN NEBULA
 Covey, K., [14 authors], **Agüeros, M.**, et al. 2011, *AJ*, 141, 40

publications
continued

- [31] THE ELM SURVEY. II. TWELVE BINARY WHITE DWARF MERGER SYSTEMS
Kilic, M., Brown, W., Allende Prieto, C., **Agüeros, M.**, Heinke, C., Kenyon, S. 2011, *ApJ*, 727, 3
- [32] ACCURATE MASSES FOR THE PRIMARY AND SECONDARY IN THE ECLIPSING WHITE DWARF BINARY NLTT 11748
Kilic, M., Allende Prieto, C., Brown, W., **Agüeros, M.**, Kenyon, S., Camilo, F. 2010, *ApJ*, 721, L158
- [33] NO NEUTRON STAR COMPANION TO THE LOWEST MASS SDSS WHITE DWARF
Agüeros, M., Heinke, C., Camilo, F., et al. 2009, *ApJL*, 700, L123
- [34] THE SEVENTH DATA RELEASE OF THE SDSS
Abazajian, K., Adelman-McCarthy, J., **Agüeros, M.**, et al. 2009, *ApJS*, 182, 543
- [35] A RADIO SEARCH FOR PULSAR COMPANIONS TO SDSS LOW-MASS WHITE DWARFS
Agüeros, M., Camilo, F., Silvestri, N., Kleinman, S., Anderson, S., Liebert, J. 2009, *ApJ*, 697, 283
- [36] X-RAY EMITTING STARS IDENTIFIED FROM THE RASS AND THE SDSS
Agüeros, M., Anderson, S., Covey, K., et al. 2009, *ApJS*, 181, 444
- [37] THE RUNAWAY WHITE DWARF LP400–22 HAS A COMPANION
Kilic, M., Brown, W., Allende Prieto, C., Swift, B., Kenyon, S., Liebert, J., **Agüeros, M.** 2009, *ApJ*, 695, L92
- [38] THE CHAMP EXTENDED STELLAR SURVEY (CH_{ESS}): PHOTOMETRIC AND SPECTROSCOPIC PROPERTIES OF SERENDIPITOUSLY DETECTED STELLAR X-RAY SOURCES
Covey, K., **Agüeros, M.**, Green, P., et al. 2008, *ApJS*, 178, 339
The first two authors contributed equally to this study.
- [39] THE COINCIDENCE OF NUCLEAR STAR CLUSTERS AND ACTIVE GALACTIC NUCLEI
Seth, A., **Agüeros, M.**, ^sLee, D., ^sBasu-Zych, A. 2008, *ApJ*, 678, 116
- [40] THE SIXTH DATA RELEASE OF THE SDSS
Adelman-McCarthy, J., **Agüeros, M.**, Allam, S., et al. 2008, *ApJS*, 175, 297
- [41] STELLAR SEDS FROM 0.3 TO 2.5 μm : TRACING THE STELLAR LOCUS AND SEARCHING FOR COLOR OUTLIERS IN THE SDSS AND 2MASS
Covey, K., [5 authors], **Agüeros, M.**, et al. 2007, *AJ*, 134, 2398
- [42] THE FIFTH DATA RELEASE OF THE SDSS
Adelman-McCarthy, J., **Agüeros, M.**, Allam, S., et al. 2007, *ApJS*, 172, 634
- [43] CATAclysmic VARIABLES FROM SDSS VI. THE SIXTH YEAR (2005)
Szkody, P., [5 authors], **Agüeros, M.**, et al. 2007, *AJ*, 134, 185
- [44] A LARGE, UNIFORM SAMPLE OF X-RAY EMITTING AGN FROM THE RASS AND SDSS SURVEYS: THE DATA RELEASE 5 SAMPLE
Anderson, S., [8 authors], **Agüeros, M.**, et al. 2007, *AJ*, 133, 313
- [45] PANCHROMATIC PROPERTIES OF 99,000 GALAXIES DETECTED BY SDSS, AND (SOME BY) ROSAT, GALEX, 2MASS, IRAS, GB6, FIRST, NVSS, AND WENSS SURVEYS
Obrić, M., [5 authors], **Agüeros, M.**, et al. 2006, *MNRAS*, 370, 1677
- [46] CANDIDATE ISOLATED NEUTRON STARS AND OTHER OPTICALLY BLANK X-RAY FIELDS IDENTIFIED FROM THE RASS AND SDSS SURVEYS
Agüeros, M., Anderson, S., Margon, B., et al. 2006, *AJ*, 131, 1740
- [47] CATAclysmic VARIABLES FROM THE SDSS V. THE FIFTH YEAR (2004)
Szkody, P., Henden, A., **Agüeros, M.**, et al. 2006, *AJ*, 131, 973

- publications**
continued
- [48] THE FOURTH DATA RELEASE OF THE SDSS
Adelman-McCarthy, J., **Agüeros, M.**, Allam, S., et al. 2006, *ApJS*, 162, 38
- [49] THE ULTRAVIOLET, OPTICAL, AND INFRARED PROPERTIES OF SDSS SOURCES DETECTED BY GALEX
Agüeros, M., Ivezić, Ž., Covey, K., et al. 2005, *AJ*, 130, 1022
- [50] POWER-RECYCLED RESONANT SIDEBAND EXTRACTION INTERFEROMETER WITH POLARIZATION DETECTION
Beyersdorf, P. T., Kawamura, S., Somiya, K., Kawazoe, F., **Agüeros, M.**, et al. 2005, *Appl. Opt.*, 44, 3413
- [51] CATAclySMIC VARIABLES FROM THE SDSS IV. THE FOURTH YEAR (2003)
Szkody, P., [6 authors], **Agüeros, M.**, et al. 2005, *AJ*, 129, 2386
- [52] THE THIRD DATA RELEASE OF THE SDSS
Abazajian, K., Adelman-McCarthy, J., **Agüeros, M.**, et al. 2005, *AJ*, 129, 1755
- [53] SDSS IMAGING OF LOW GALACTIC LATITUDE FIELDS: TECHNICAL SUMMARY AND DATA RELEASE
Finkbeiner, D., [20 authors], **Agüeros, M.**, et al. 2004, *AJ*, 128, 2577
- [54] CATAclySMIC VARIABLES FROM THE SDSS III. THE THIRD YEAR
Szkody, P., [5 authors], **Agüeros, M.**, et al. 2004, *AJ*, 128, 1882
- [55] THE SECOND DATA RELEASE OF THE SDSS
Abazajian, K., Adelman-McCarthy, J., **Agüeros, M.**, et al. 2004, *AJ*, 128, 502
- [56] A LARGE, UNIFORM SAMPLE OF X-RAY EMITTING AGN: SELECTION APPROACH AND AN INITIAL CATALOG FROM THE RASS AND SDSS SURVEYS
Anderson, S., [3 authors], **Agüeros, M.**, et al. 2003, *AJ*, 126, 2209
- [57] THE FIRST DATA RELEASE OF THE SDSS
Abazajian, K., Adelman-McCarthy, J., **Agüeros, M.**, et al. 2003, *AJ*, 126, 2081
- [58] AN X-RAY IMAGE OF THE COMPOSITE SNR G16.7+0.1
Helfand, D., **Agüeros, M.**, & Gotthelf, E. 2003, *ApJ*, 592, 941
- [59] CATAclySMIC VARIABLES FROM THE SDSS I. THE FIRST RESULTS
Szkody, P., Anderson, S., **Agüeros, M.**, et al. 2002, *AJ*, 123, 430
- [60] THE BULK EXPANSION OF SNR CASSIOPEIA A AT 151 MHz
Agüeros, M. & Green, D. 1999, *MNRAS*, 305, 957
- conference proceedings**
- [1] THE ROTATION-ACTIVITY RELATION IN 500-MYR-OLD STARS
Núñez, A., **Agüeros, M.**, Covey, K., López-Morales, M. 2017, *Revista Mexicana de Astronomía y Astrofísica (Serie de Conferencias) (RMxAC)*, 49, 91
- [2] SETTING STELLAR CHRONOMETERS: THE PTF(+) OPEN CLUSTER SURVEY
Agüeros, M. 2017, *RMxAC*, 49, 80
- [3] TESTING THE ROTATION-ACTIVITY RELATION WITH THE HYADES AND PRAESEPE
Douglas, S., **Agüeros, M.**, et al. 2016, *19th Cambridge Workshop on Cool Stars, Stellar Systems, and the Sun*, id.106
- [4] CONSTRAINING THE INITIAL-FINAL MASS RELATION WITH WIDE DOUBLE WHITE DWARFS
Andrews, J., **Agüeros, M.**, Gianninas, A., Kilic, M., Dhital, S., Anderson, S. 2015, *19th European Workshop on White Dwarfs*, ASP Conference Series, 493, 301

- conference proceedings**
continued
- [5] ROTATION AND ACTIVITY IN THE PRAESEPE OPEN CLUSTER
Lemonias, J., **Agüeros, M.** et al. 2011, *16th Cambridge Workshop on Cool Stars, Stellar Systems, and the Sun*, ASP Conference Series, 448, 1165
- [6] THE AGE-ROTATION-ACTIVITY RELATION: FROM MYRS TO GYRS
Covey, K., **Agüeros, M.**, et al. 2011, *16th Cambridge Workshop on Cool Stars, Stellar Systems, and the Sun*, ASP Conference Series, 448, 269
- [7] EXTENDED CHANDRA MULTI-WAVELENGTH PROJECT (CHAMPX)
Kim, D.-W., [6 authors], **Agüeros, M.** et al. 2008, *The X-ray Universe 2008*, id.240
- [8] THE CHAMP EXTENDED STELLAR SURVEY (CHESS)
Agüeros, M., Covey, K., Green, P., et al. 2008, *The X-ray Universe 2008*, id.14
- [9] RASS DETECTED NARROW-LINE SEYFERT 1 GALAXIES IN THE SDSS
Gallo, L., Boller, T., Voges, W., Anderson, S., **Agüeros, M.**, vanden Berk, D. 2004, *AGN Physics with the Sloan Digital Sky Survey*, ASP Conference Series, 311, 273
- [10] FINDING CVs IN THE SLOAN DIGITAL SKY SURVEY: FIRST RESULTS
Szkody, P., Anderson, S., **Agüeros, M.**, Covarrubias, R. 2002, *The Physics of Cataclysmic Variables and Related Objects*, ASP Conference Proceedings, 261, 297
- [11] DETECTION OF X-RAY EMISSION FROM SNR G16.7+0.1
Agüeros, M., Helfand, D., Gotthelf, E. 2002, *Neutron Stars in Supernova Remnants*, ASP Conference Proceedings, 271, 241
- research grants**
≈\$2.0M as PI since 2009
- A DECADE ON, WHICH BEES ARE STILL BUZZING? 2018
MONITORING STARSPOUT EVOLUTION IN PRAESEPE FROM PTF TO K2
NASA: *K2* Cycle 6 Guest Observer Program
Award period: TBD
\$50,000
- NO LONGER ON THE MARGINS: 2018
COMPLETING THE ROTATIONAL CENSUS OF LOW-MASS HYADS WITH TESS
NASA: *Transiting Exoplanet Survey Satellite (TESS)* Cycle 1 Guest Investigator Program
Award period: TBD
\$50,000
- A UV SPECTROSCOPIC SURVEY OF PERIODIC M DWARFS IN THE HYADES 2017
Space Telescope Science Institute (STScI): *Hubble Space Telescope (HST)* Cycle 25 Guest Observer Program
Award period: TBD
\$171,161
- A UV SPECTROSCOPIC SNAPSHOT SURVEY OF LOW-MASS STARS IN THE HYADES 2017
STScI: *HST* Cycle 25 Snapshot Program
Award period: TBD
\$160,361
- WHY WE SHOULD KEEP POKING THE BEEHIVE: 2017
SIMULTANEOUS K2 AND SPECTROSCOPIC OBSERVATIONS OF PRAESEPE
NASA: *K2* Cycle 5 Guest Observer Program
Award period: 01/22/2018-01/21/2019
\$50,000

research grants <i>continued</i>	<p>HOW THE OTHER HALF LIVES: COMPLETING THE K2 CENSUS OF LOW-MASS HYADS NASA: <i>K2</i> Cycle 4 Guest Observer Program Award period: 02/02/2017-09/30/2018 \$40,000</p> <p>A SNAPSHOT SURVEY OF THE HYADES: TESTING MODELS FOR MAGNETIC SATURATION NASA: <i>XMM-Newton</i> AO-15 Guest Observer Program Award period: 01/03/2017-01/02/2019 \$98,262</p> <p>THE MASSIVE COMPANIONS OF LOW-MASS WHITE DWARFS SAO: <i>Chandra</i> Cycle 17 General Observer Program Award period: 01/29/2016-01/28/2018 \$34,823</p> <p>HYPR: ANCHORING THE ROTATION-ACTIVITY RELATION AT 600 MYR NSF: Astronomy & Astrophysics Research Grant Award period: 09/01/2015-08/31/2017 \$206,066</p> <p>CAREER: FIXING STELLAR CHRONOMETERS WITH OPEN CLUSTERS NSF: Faculty Early Career Development (CAREER) program Award period: 06/01/2013-08/31/2018 \$922,185</p> <p>SEARCHING FOR MILLISECOND PULSARS IN EXTREMELY LOW-MASS WHITE DWARF BINARIES National Radio Astronomy Observatory Student Observing Support grant (for Jeff Andrews) Award period: 02/01/2012-01/31/2013 \$35,000</p> <p>DEEP IMAGING OF M37, A BETTER HYADES Smithsonian Astrophysical Observatory (SAO): <i>Chandra</i> Cycle 13 General Observer Program Award period: 11/16/2011-11/15/2015 Award: \$115,391</p> <p>SEARCHING FOR MILLISECOND PULSARS IN EXTREMELY LOW-MASS WHITE DWARF BINARIES SAO: <i>Chandra</i> Cycle 12 General Observer Program Award period: 03/03/2011-03/02/2014 \$23,182</p> <p>THE COOLEST X-RAY EMITTING WDS? <i>XMM-Newton</i> AO-8 Guest Observer Program Award period: 07/17/2009-07/16/2011 \$56,900</p> <p>THE COOLEST X-RAY EMITTING WDS? SAO: <i>Chandra</i> Cycle 9 General Observer Program Award period: 01/01/2008-01/31/2010 \$26,584</p> <p>XMM-NEWTON SPECTRAL ENERGY DISTRIBUTION OF A NEW CANDIDATE ISOLATED NEUTRON STAR NASA: <i>XMM-Newton</i> AO-6 Guest Observer Program Award period: 08/15/2007-08/14/2009 \$27,016</p>	<p>2016</p> <p>2016</p> <p>2016</p> <p>2015</p> <p>2013</p> <p>2012</p> <p>2011</p> <p>2010</p> <p>2009</p> <p>2008</p> <p>2007</p>
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research grants <i>continued</i>	LIFTING THE VEIL: A MULTIWAVELENGTH PICTURE OF THE GALACTIC PLANE AND OF ITS STELLAR REMNANTS NSF: AAPF program Award period: 10/01/2006-09/30/2010 \$206,000	2006
	FINDING ISOLATED NEUTRON STARS IN THE ROSAT AND SDSS SURVEYS NASA: Harriett G. Jenkins Pre-doctoral Fellowship program Award period: 07/01/2003-06/30/2006 Award: \$106,449	2003
other grants >\$1.4M as PI since 2009	departmental initiatives CUPUC: A PARTNERSHIP WITH ASTRONOMERS AT THE PONTIFICIA UNIVERSIDAD CATÓLICA DE CHILE Columbia U. President's Global Innovation Fund Award period: 06/01/2016-05/31/2018 \$50,000	2016
	THE LARGE SYNOPTIC SURVEY TELESCOPE (LSST) AND THE FUTURE OF ASTRONOMY Columbia U. Provost's Grants Program For Junior Faculty Who Contribute to the Diversity Goals of the University Award period: 06/01/2013-05/31/2014 \$25,000	2013
	COLUMBIA'S PARTICIPATION IN THE CORNELL SPACE GRANT CONSORTIUM New York NASA Space Grant Consortium Total award period: 05/01/2012-04/30/2019 Total award: \$208,820	2012-present
	Bridge to the Ph.D. Program in the Natural Sciences A BRIDGE TO THE FUTURE NSF: unsolicited proposal Award period: 09/01/2015-08/31/2018 \$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 period: 10/01/2010-09/30/2013 \$692,321	2010
	A BRIDGE TO THE ASTRONOMY PH.D. AT COLUMBIA UNIVERSITY New York NASA Space Grant Consortium Total award period: 05/01/2008-04/30/2010 Total award: \$20,000	2008, 2009
honors, prizes, & fellowships	Kavli Frontiers of Sciences Fellow NSF Presidential Early Career Award for Scientists and Engineers (PECASE) Columbia University Distinguished Faculty Award NSF CAREER award Selected participant, Summer Leadership Institute, Society for the Advancement of Chicanos and Native Americans in Science (SACNAS) Certificate of Excellence in Recognition of Distinguished Personal Initiative on Diversity in Astronomy, National Society of Black Physicists (NSBP) NSF AAPF Trailblazer Award, Latino Alumni Association of Columbia University NASA Harriett G. Jenkins Pre-doctoral Fellow, U. of Washington	2016 2016 2016 2013 2011 2008 2006-2010 2006 2003-2006

- honors**
continued
- | | |
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| NSF Graduate Teaching in K-12 Education (GK-12) Fellow, U. of Washington | 2002-2003 |
| NSF East Asian & Pacific Summer Institute, National Astronomical
Observatory of Japan | 2002 |
| Columbia College Eureka J. Kellett Fellow, U. of Cambridge | 1996-1998 |
| Phi Beta Kappa, Columbia U. | 1996 |
| Hispanic Scholarship Fund, Columbia U. | 1994-1996 |
- colloquia
& talks**
- [1] Contributed plenary talk, 20th Cambridge Workshop on Cool Stars, Boston, MA, Aug. 1, 2018
 - [2] Invited seminar, Kazan Federal University, Kazan, Russia, Jun. 15, 2018
 - [3] Colloquium, University of North Carolina, Apr. 23, 2018
 - [4] Colloquium, University of Michigan, Apr. 12, 2018
 - [5] Invited seminar, University of Exeter, Exeter, UK, Mar. 14, 2018
 - [6] Invited seminar, Rider University, Feb. 23, 2018
 - [7] Contributed talk, “Dwarf Stars and Clusters with K2” workshop, Boston, MA, Jan. 16, 2018
 - [8] Invited seminar, Vanderbilt University, Dec. 8, 2017
 - [9] Joint Astrophysics Colloquium, McGill University, Montreal, Canada, Nov. 28, 2017
 - [10] Five College Astronomy Department Colloquium, University of Massachusetts, Sep. 28, 2017
 - [11] Contributed talk, “ages²: Taking Stellar Ages to the Next Power” meeting, Elba, Italy,
Sep. 19, 2017
 - [12] Colloquium, Pontificia Universidad Católica, Santiago, Chile, May 23, 2017
 - [13] Contributed talk, Latin American XV Regional IAU Meeting, Cartagena, Colombia, Oct. 6, 2016
 - [14] Colloquium, University of Texas, Aug. 30, 2016
 - [15] Colloquium, Pennsylvania State University, Apr. 20, 2016
 - [16] Invited seminar, Imperial College London, London, UK, Oct. 7, 2015
 - [17] Invited talk, “Celebrating 10 Years of Diversity in Astronomy With Pre-MAP” special session,
AAS meeting 225, Seattle, WA, Jan. 6, 2015
 - [18] Colloquium, University of Rochester, Mar. 31, 2014
 - [19] Contributed talk, “What Asteroseismology Has to Offer to Astrophysics,” International Francqui
Symposium (in honor of Conny Aerts), Brussels, Belgium, Dec. 4, 2013
 - [20] Invited talk, Tri-State Astronomy Conference, CUNY Graduate Center, NY, NY, Sep. 27, 2013
 - [21] Invited talk, Graduate Education in Physics Conference, College Park, MD, Feb. 1, 2013
 - [22] Invited talk, “Research Based Initiatives for Broadening the Participation of Women and
Minorities in Astronomy” special session, AAS meeting 221, Long Beach, CA, Jan. 7, 2013
 - [23] Invited talk, SACNAS National Conference, Seattle, WA, Oct. 12, 2012
 - [24] Invited talk, “Determining the Ages of Low-Mass Stars and Brown Dwarfs” splinter session,
17th Cambridge Workshop on Cool Stars, Barcelona, Spain, Jun. 25, 2012
 - [25] Colloquium, Yale University, Apr. 5, 2012
 - [26] Colloquium, University of Toronto, Mar. 23, 2012
 - [27] Invited talk, SACNAS National Conference, San José, CA, Oct. 28, 2011
 - [28] Colloquium, Pennsylvania State University, Sep. 28, 2011
 - [29] Invited talk, NSBP/National Society of Hispanic Physicists (NSHP) Joint Annual Conference,
Austin, TX, Sep. 24, 2011
 - [30] Invited talk, PTF Collaboration Meeting, Santa Barbara, CA, May 27, 2011
 - [31] Steward Observatory/National Optical Astronomy Observatory Joint Colloquium, Apr. 28, 2011
 - [32] Invited seminar, Rutgers University, Apr. 22, 2011
 - [33] Cape Town Astronomy & Cosmology Colloquium, South African Astronomical Observatory,
Cape Town, South Africa, Apr. 19, 2011
 - [34] Contributed talk, 2nd Middle-East and Africa Regional IAU Meeting, Cape Town, South Africa,
Apr. 14, 2011
 - [35] Invited seminar, Center for Interdisciplinary Exploration and Research in Astronomy,
Northwestern University, Apr. 5, 2011
 - [36] Colloquium, University of Wisconsin-Milwaukee, Apr. 1, 2011
 - [37] Colloquium, Columbia University, May 27, 2009
 - [38] Invited seminar, College of Staten Island, May 6, 2009

- colloquia
& talks**
continued
- [39] Contributed talk, NSF Astronomy & Astrophysics Postdoctoral Fellows Symposium, Long Beach, CA, Jan. 4, 2009
 - [40] Contributed talk, NSF Astronomy & Astrophysics Postdoctoral Fellows Symposium, Austin, TX, Jan. 6, 2008
 - [41] Contributed talk, NSF Astronomy & Astrophysics Postdoctoral Fellows Symposium, Seattle, WA, Jan. 6, 2007
 - [42] Colloquium, Kyoto University, Kyoto, Japan, Dec. 5, 2006
 - [43] Colloquium, American Museum of Natural History, Nov. 6, 2006
 - [44] Invited talk, SACNAS National Conference, Tampa, FL, Oct. 27, 2006
 - [45] Colloquium, Vanderbilt University, Feb. 2, 2006
 - [46] Invited talk, NSBP/NSHP Joint Annual Conference, Orlando, FL, Feb. 19, 2005
 - [47] Invited talk, SACNAS National Conference, Austin, TX, Oct. 23, 2004
 - [48] Invited talk, NSBP/NSHP Joint Annual Conference, Washington, DC, Feb. 20, 2004
- meetings
organized**
- STELLAR MAGNETISM MINI-MEETING 2017
Co-organizer of a week-long workshop in Bellingham, WA, Aug. 14-18. Eleven attendees. See <https://bit.ly/2jTIIvz>
 - “STAR CLUSTERS FROM SPACE, FROM THE GROUND, AND OVER TIME” 2016
Co-organizer of a two-day splinter session at 19th Cool Stars meeting, Uppsala, Sweden, June 6-7. Twenty speakers. See <https://bit.ly/2IbUnxv>
 - COOL STARS MARCH MINI-MEETING 2016
Co-organizer of a three-day workshop at Columbia U., Mar. 16-18. Fifteen attendees. See <https://bit.ly/2rHtwyD>
 - CUPUC WORKSHOP II 2015
Co-organizer of a three-day joint Columbia–Pontificia Universidad Católica (CUPUC) workshop at Columbia U., Dec 14-16. Hosted seven PUC faculty members. See <https://bit.ly/2rEg538>
 - CUPUC WORKSHOP I 2015
Co-organizer of a three-day CUPUC workshop hosted by the Instituto de Astrofísica, Santiago, Chile, May 27-29. Five Columbia faculty and six graduate students attended. See <https://bit.ly/2Idvp0K>
 - COOL STARS COLUMBIA-CORNELL WORKSHOP 2010
Co-organizer of a week-long workshop in Ithaca, NY, Aug. 9-13. Fifteen attendees. Culminated in one-day symposium; see <https://bit.ly/2jTIYUH>
 - “PLANETS, STARS, GALAXIES, ENGINEERS: ASTRONOMY INSTRUMENTATION AND YOU” 2009
Co-organizer of National Optical Astronomy Observatory workshop at annual meeting of the Society of Hispanic Professional Engineers, Washington, DC, Oct. 29. See <https://bit.ly/2If6Cpl>
 - ANNUAL RESEARCH SYMPOSIUM, BRIDGE TO THE PH.D. PROGRAM 2009-present
Organize symposium at Columbia to highlight research accomplishments of Program participants and alumni. Usually features a dozen speakers and 50-80 attendees.
 - ASTRONOMY SESSIONS, NSBP/NSHP JOINT MEETING 2009
Co-organizer of four sessions at annual NSBP/NSHP meeting, Nashville, TN, Feb. 12-14. Nineteen speakers, 30-50 attendees. See <https://bit.ly/2GdMBgS>
 - ASTRONOMY SESSIONS, NSBP/NSHP JOINT MEETING 2008
Co-organizer of three sessions at annual NSBP/NSHP meeting, Washington, DC, Feb. 22-23. Fourteen speakers, 30-50 attendees. See <https://bit.ly/2jVLz00>

grants for meetings	<p>WE ARE FAMILY: THE BRIDGE PROGRAM'S TENTH ANNIVERSARY SYMPOSIUM NSF: unsolicited proposal Award period: 05/01/2018-04/30/2019 \$30,000</p> <p>TEAMING UP TO PREPARE FOR THE NEXT DECADE IN TIME-DOMAIN ASTROPHYSICS: A JOINT WORKSHOP WITH THE PONTIFICIA UNIVERSIDAD CATÓLICA DE CHILE Columbia U. President's Global Innovation Fund Award period: 06/01/2014-05/31/2015 \$25,000</p> <p>ENHANCING THE ROLE OF PHYSICS AND OF THE NSHP AT THE SACNAS NATIONAL CONFERENCE NSF: unsolicited proposal (PI: J. Draayer; served as co-PI) Award period: 07/15/2012-06/30/2015 \$75,000</p> <p>THE 2011 JOINT ANNUAL CONFERENCE OF THE NSBP/NSHP NSF: unsolicited proposal (PI: J. Draayer) Award period: 06/15/2011-05/31/2012 \$299,380</p>	<p>2018</p> <p>2014</p> <p>2012</p> <p>2011</p>
service to university	<p>OUTREACH DIRECTOR, DEPARTMENT OF ASTRONOMY Oversee departmental outreach efforts, which reach ≈ 3000 people a year. See http://outreach.astro.columbia.edu</p> <p>FOUNDING DIRECTOR, BRIDGE TO PH.D. PROGRAM IN THE NATURAL SCIENCES Lead Columbia program that prepares underrepresented post-baccalaureates for transition into Ph.D. programs. See http://bitly.com/cubridge</p> <p>PROPOSAL REVIEWER, OFFICE OF GLOBAL PROGRAMS & FELLOWSHIPS Reviewed proposals for Kellett Fellowship and Goldwater Scholarship.</p>	<p>2010-present</p> <p>2008-present</p>
service to discipline	<p>TRUSTEE, AMERICAN ASTRONOMICAL SOCIETY (AAS) Elected member of the AAS's board of trustees, its governing body.</p> <p>MEMBER, LSST INTERNATIONAL CONTRIBUTORS COMMITTEE Elected member of the LSST Corporation's committee responsible for managing international partnerships.</p> <p>MEMBER, SELECTION COMMITTEE, GOLDEN GOOSE AWARD Select recipients of the American Association for the Advancement of Science's annual award for quirky and impactful science.</p> <p>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.</p> <p>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.</p> <p>MEMBER, COMMUNITY SCIENCE ADVISORY COMMITTEE, ZWICKY TRANSIENT FACILITY (ZTF) Advise the ZTF PI Shri Kulkarni on matters of importance to the US community.</p>	<p>2017-present</p> <p>2017-present</p> <p>2016-present</p> <p>2016</p> <p>2015-present</p> <p>2014-present</p>

**service to
discipline**
continued

MEMBER, NSF DIVISION OF ASTRONOMICAL SCIENCES PORTFOLIO REVIEW
COMMITTEE

2011-2012

Produced guidelines for implementing Astro2010 Decadal Survey recommendations for ground-based astronomy in light of budgetary realities.

PROPOSAL REVIEWER

Chilean National Commission for Science and Technology, NSF GK-12, AAPF, and Astronomy & Astrophysics Research Grants programs, NSF facilities management competition, NASA Post-doctoral Program, MIT Press, and Sloan Foundation.

SCIENTIFIC REFEREE

Astronomy & Astrophysics, MNRAS, and PASP