

# Andrew W. Mann

*Curriculum Vitae*

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CONTACT	Columbia University	<i>E-mail:</i> <a href="mailto:awm2126@columbia.edu">awm2126@columbia.edu</a>
INFORMATION	Department of Astronomy Mail Code 5246 550 West 120th Street New York, NY 10027 USA	Github: <a href="https://github.com/awmann">https://github.com/awmann</a> Homepage: <a href="http://andrewwmann.com">http://andrewwmann.com</a> <i>Cell:</i> (216) 402-3585
RESEARCH INTERESTS	Exoplanet statistics (occurrence, correlations with host star properties) Evolution of planetary systems Methods to detect and characterize (young) planets Machine learning & numerical methods Fundamental properties of late-type and pre-main sequence stars Techniques for high-precision photometry	
REFERENCES	Adam Kraus      Professor, University of Texas at Austin ( <a href="mailto:alk@astro.as.utexas.edu">alk@astro.as.utexas.edu</a> ) Eric Gaidos      Professor, University of Hawai'i ( <a href="mailto:gaidos@hawaii.edu">gaidos@hawaii.edu</a> ) Philip Muirhead   Professor, Boston University ( <a href="mailto:philipm@bu.edu">philipm@bu.edu</a> )	
EMPLOYMENT	<i>Hubble</i> Prize Postdoctoral Fellow <i>Harlan J. Smith</i> Prize Postdoctoral Fellow Research Assistant; Advisor: Prof. Eric Gaidos Research Assistant; Advisor: Dr. Jeffrey Morgan	2015 – Present 2013 – 2015 2009 – 2013 2008 – 2009
EDUCATION	<b>Institute for Astronomy, University of Hawai'i at Manoa,</b>  Ph.D., Astronomy & Astrophysics, 2013  PhD Thesis Topic: <i>Planets around cool stars: a spectroscopic and photometric study of M dwarfs and their planets</i> Advisor: Prof. Eric Gaidos  M.S., Astronomy, 2010  Masters Thesis Topic: <i>The Invisible Majority? Evolution and Detection of Outer Planetary Systems without Gas Giants</i> ; Advisor: Prof. Eric Gaidos Masters Thesis Topic 2: <i>BHOMs and the Redshift Evolution of the Cluster Merger Fraction</i> ; Advisor: Dr. Harald Ebeling  <b>Department of Physics and Astronomy, Johns Hopkins University,</b> B.S., Physics, with a minor in Mathematics, June 2008	
GRANTS & AWARDS (AS PI ONLY)	ROSES-2016/K2 Guest Observer <i>Zodiacal Exoplanets in Time (ZEIT): The Return to Praesepe</i> Hubble Postdoctoral Fellowship Program <i>Understanding Planets Through Their Host Stars</i> Harlan J. Smith Postdoctoral Fellowship	\$30,000 \$360,000

	<i>Kepler Input Catalog Atlas of Stellar Spectra</i>	\$210,000
	NASA-Keck Principal Investigator Data Award	
	<i>Weighing the Stars: The Mass-Luminosity Relation for M Dwarfs</i>	\$41,500
	<i>Zodiacal Exoplanets in Time (ZEIT): The AO Follow-up Program</i>	\$18,000
	NASA-WIYN Principal Investigator Data Award	
	<i>Clusters with K2: Systematics from Membership and Binarity</i>	\$39,000
	ROSES-2015/K2 Guest Observer	
	<i>Zodiacal Exoplanets in Time (ZEIT): The Hyades Cluster</i>	\$40,000
	University Research Council Award (Doctoral level)	\$1000
MENTORSHIP & TEACHING	<b>Students Supervised:</b>	
	Pa Chia Thao; TAURUS Undergraduate; <i>Spitzer's view of two young exoplanets</i>	
	Xueying Guo; MIT Graduate Student; <i>The metallicity distribution and hot Jupiter rate of the Kepler field</i>	
	Jennifer Medina; TAURUS Undergraduate; <i>Measuring <math>V_{\sin(i)}</math> of young planet-hosting stars</i>	
	Nathan Morris; UT Undergraduate; <i>Rotation periods and ages for K2 planet hosts</i>	
	Richard Seifert; UT Undergraduate; <i>Cluster Binarity from WIYN/Hydra</i>	
	<b>Guest Lectures:</b>	
	Introduction to Astronomy (UT undergraduate); Magnitudes & Colors	
	Introduction to Astronomy (UT undergraduate); Blackbodies & Stars	
	Planetary Systems (UT undergraduate); Properties of planet-hosts	
	Planetary Systems (UT graduate); Interplay of planets and their host stars	
PROFESSIONAL ACTIVITIES & SERVICE	<i>TESS</i> Cool Dwarf Target Selection group	2015-present
	<i>TESS</i> Target Selection working group	2015-present
	McDonald Time Allocation Committee	2015-present
	Referee for Nature, ApJ, AJ, A&A	
	Texas M Dwarfs and Exoplanets (Tex-MEX) Organizer	2014-2017
	NESSF reviewer	2016, 2017
	Bashfest SOC, LOC	2015, 2017
	OPTICON external reviewer	2015-2017
	China Telescope Access Program Reviewer	2016
	TAURUS Summer Research Program Mentor	2016, 2017
	<i>Hubble Space Telescope</i> Time Allocation Committee	2015
	<i>Kepler</i> Stellar properties working group	2013-2014
	Visiting Researcher at Boston University	2014-2015
	Cool Stars 18 Splinter Organizer	2014
	University of Hawaii Time Allocation Committee	2012-2013
	University of Hawaii Graduate Student Representative	2011-2012
	University of Hawaii Graduate Admissions Committee	2010-2011
PI OBSERVING TIME	<i>Spitzer</i> (IRAC)	125 hours
	Keck (LRIS, NIRC2, ESI) [UH, NASA]	11 nights
	Gemini (GNIRS) [NOAO]	4 nights

CFHT (ESPaDOnS) [UH]	30 hours
WIYN (Hydra) [NOAO]	65 hours
IRTF (SpeX) [UH, Open]	32 nights
Harlan J. Smith (TS23 Coude, IGRINS) [UT]	34 nights
LCOGT [UT]	250 hours
UH2.2m (SNIFS, OPTIC) [UH]	> 50 nights

## TALKS

*Invited & Colloquia:*

Frank N. Bash Symposium; New Horizons in Astronomy	2017
Asteroseismology and Optical Interferometry	2017
University of Florida; Department of Astronomy	2017
Academia Sinica; Institute of Astronomy and Astrophysics (ASIAA)	2017
University of Minnesota; Institute for Astrophysics	2017
Institute of Astronomy, National Tsing Hua University	2016
Department of Astronomy, Boston University	2014
California Institute for Technology (Distinguished Visitor Program)	2013

*Public:*

Astronomy on Tap	2016, 2017
EXES Teacher Meeting	2017
Gasparilla Teacher's Association	2016
Board of Visitors Discussion Group	2015
Board of Visitors Science Talk	2014
Friends of the IfA	2012

*21 contributed/seminar talks not listed*

## PRESS

[New Planet Offers Clues to the Origin of Close-in Exoplanets](#)

## RELEASES

[Newly Discovered Planet in the Hyades Cluster Sheds Light on Planetary Evolution](#)

## FIRST

*“Zodiacal Exoplanets in Time (ZEIT) VI: a three-planet system in the Hyades cluster including an Earth-sized planet”*

## AUTHOR

PUBLICATIONS  
(15)

**Mann, Andrew W.**; Vanderburg, Andrew; Rizzuto, Aaron C.; et al.; Accepted to AJ.

*“The Gold Standard: Accurate Stellar and Planetary Parameters for Eight Kepler M Dwarf Systems Enabled by Parallaxes”*

**Mann, Andrew W.**; Dupuy, Trent; Muirhead, Philip; et al.; 2017, AJ 153 267.

*“Zodiacal Exoplanets in Time (ZEIT) IV: seven transiting planets in the Praesepe cluster”*

**Mann, Andrew W.**; Gaidos, Eric; Vanderburg, Andrew; et al.; 2017, AJ 153 64.

*“Zodiacal Exoplanets in Time (ZEIT) III: A short-period planet orbiting a pre-main-sequence star in the Upper Scorpius OB Association”*

**Mann, Andrew W.**; Newton, Elisabeth R.; Rizzuto, Aaron C.; et al.; 2016, AJ 152 61.

*“Zodiacal Exoplanets In Time (ZEIT) I: A Neptune-sized planet orbiting an M4.5 dwarf in the Hyades Star Cluster”*

**Mann, Andrew W.**; Gaidos, Eric; Mace, Gregory N.; et al.; 2016, ApJ, 818 46.

*“How to Constrain Your M Dwarf: measuring effective temperature, bolometric luminosity, mass, and radius”*

**Mann, Andrew W.**; Feiden, Gregory A.; Gaidos, Eric; Boyajian, Tabetha; von Braun, Kaspar; 2015, ApJ, 804 64.

*“Revised Photometric Passbands and Zero-Points for Photometry of Bright Stars”*

**Mann, Andrew W.**; von Braun, Kaspar; 2015, PASP 127 102.

*“Prospecting in Ultracool Dwarfs: Measuring the Metallicities of Mid- and Late-M Dwarfs”*

**Mann, Andrew W.**; Deacon, Niall R.; Gaidos, Eric; Ansdell, Megan; Brewer, John M.; Liu, Michael C.; Magnier, Eugene A.; Aller, Kimberly M.; 2014, AJ 147 160.

*“Spectro-thermometry of M Dwarfs and Their Candidate Planets: Too Hot, Too Cool, or Just Right?”*

**Mann, Andrew W.**; Gaidos, Eric; Ansdell, Megan; 2013, ApJ, 779 188.

*“Testing the Metal of Late-Type Kepler Planet Hosts with Iron-Clad Methods”*

**Mann, Andrew W.**; Gaidos, Eric; Kraus, Adam; Hilton, Eric; 2013, ApJ, 770 43.

*“Prospecting in late-type dwarfs:*

*a calibration of infrared and visible spectroscopic metallicities of late-K and M dwarfs spanning 1.5 dex”*

**Mann, Andrew W.**; Brewer, John; Gaidos, Eric; Lépine, Sébastien; Hilton, Eric; AJ 2013, 145 52.

*“They Might be Giants: luminosity classes, planet frequency, and planet-metallicity relation of the coolest Kepler target stars”*

**Mann, Andrew W.**; Gaidos, Eric; Lépine, Sébastien; Hilton, Eric; 2012, ApJ, 753, 90.

*“X-ray-optical classification of cluster mergers and the evolution of the cluster merger fraction”*

**Mann, Andrew W.**; Ebeling, Harald; 2012, MNRAS 240, 2120.

*“Ground-Based Sub-Millimagnitude CCD Photometry of Bright Stars using Snapshot Observations”*

**Mann, Andrew W.**; Gaidos, Eric; Aldering Greg; 2011, PASP 123, 1273.

*“The Invisible Majority? Evolution and Detection of Outer Planetary Systems without Gas Giants”*

**Mann, Andrew W.**; Gaidos, Eric; Gaudi, B Scott; 2010, ApJ, 719, 1454.

- PUBLICATIONS WITH A SIGNIFICANT CONTRIBUTION (21)
- “*A Catalog of Cool Dwarf Targets for the Transiting Exoplanet Survey Satellite*”  
Muirhead, Philip S.; Dressing, Courtney; **Mann, Andrew W.**; et al.; Submitted to AAS.
- “*Zodiacal Exoplanets in Time (ZEIT) V: A Uniform Search for Transiting Planets in Young Clusters Observed by K2*”  
Rizzuto, Aaron C.; **Mann, Andrew W.**; Vanderburg, Andrew; et al.; ApJ in press.
- “*The Factory and the Beehive. III. PTFEB132.707+19.810, A Low-mass Eclipsing Binary in Praesepe Observed by PTF and K2*”  
Kraus, Adam L.; Douglas, Stephanie T.; **Mann, Andrew W.**; et al.; ApJ 845 72.
- “*The metallicity distribution and hot Jupiter rate of the Kepler field: Hectochelle High-resolution spectroscopy for 776 Kepler target stars*”  
Guo, Xueying; Johnson, John A.; **Mann, Andrew W.**; et al.; ApJ 838 25.
- “*M Dwarf Activity in the Pan-STARRS 1 Medium-Deep Survey: First Catalog and Rotation Periods*”  
Kado-Fong, Erin; Williams, Peter K. G.; **Mann, Andrew W.**; et al.; ApJ 833 281.
- “*Zodiacal Exoplanets in Time (ZEIT) II. A “Super-Earth” Orbiting a Young K Dwarf in the Pleiades Neighborhood*”  
Gaidos, Eric; **Mann, Andrew W.**; Rizzuto, Aaron; et al.; 2016, MNRAS, 1448.
- “*The Physical Mechanism Behind M Dwarf Metallicity Indicators and the Role of C and O Abundances*”  
Veyette, Mark J.; Muirhead, Philip S.; **Mann, Andrew W.**; Allard, France; 2016, ApJ, 828, 95.
- “*The Impact of Stellar Multiplicity on Planetary Systems. I. The Ruinous Influence of Close Binary Companions*”  
Kraus, Adam L.; Ireland, Michael J.; Huber, Daniel; **Mann, Andrew W.**; Dupuy, Trent J.; 2016, AJ, 152, 8.
- “*They are small worlds after all: revised properties of Kepler M dwarf stars and their planets*”  
Gaidos, E.; **Mann, Andrew W.**; Kraus, A. L.; Ireland, M.; 2016, MNRAS, 457, 2887.
- “*Radial Trends in IMF-sensitive Absorption Features in Two Early-type Galaxies: Evidence for Abundance-driven Gradients*”  
McConnell, Nicholas J.; Lu, Jessica R.; **Mann, Andrew W.**; 2016, ApJ, 821, 39.
- “*A Pan-STARRS 1 study of the relationship between wide binarity and planet occurrence in the Kepler field*”  
Deacon, N. R.; Kraus, A. L.; **Mann, Andrew W.**; et al.; 2016, MNRAS, 455, 4212.

*“The Enigmatic and Ephemeral M Dwarf System KOI 6705: Cheshire Cat or Wild Goose?”*

Gaidos, Eric; **Mann, Andrew W.**; Ansdell, Megan; 2016, ApJ, 817, 50.

*“Kepler-445, Kepler-446 and the Occurrence of Compact Multiples Orbiting Mid-M Dwarf Stars”*

Muirhead, Philip S.; **Mann, Andrew W.**; Vanderburg, Andrew; et al.; 2015, ApJ, 801, 18.

*“The Near-ultraviolet Luminosity Function of Young, Early M-type Dwarf Stars”*

Ansdell, Megan; Gaidos, Eric; **Mann, Andrew W.**; et al.; 2015, 798, 41.

*“Trumpeting M dwarfs with CONCH-SHELL: a catalogue of nearby cool host-stars for habitable exoplanets and life”*

Gaidos, Eric; **Mann, Andrew W.**; Lpine, S.; et. al.; 2014, MNRAS 433, 2561.

*“M Dwarf Metallicities and Giant Planet Occurrence: Ironing Out Uncertainties and Systematics”*

Gaidos, Eric; **Mann, Andrew W.**; Ansdell, Megan; 2014, ApJ, 791, 54.

*“An Understanding of the Shoulder of Giants: Jovian Planets around Late K Dwarf Stars and the Trend with Stellar Mass”*

Gaidos, Eric; Fischer, Debra A.; **Mann, Andrew W.**; et al.; 2013, ApJ, 771, 18.

*“Objects in Kepler’s Mirror May be Larger than they Appear: Bias and Selection Effects in Transiting Planet Surveys”*

Gaidos, Eric; **Mann, Andrew W.**; 2013, ApJ, 145, 52.

*“A Spectroscopic Catalog of the Brightest ( $J < 9$ ) M Dwarfs in the Northern Sky”*

Lépine, Sébastien; Hilton, Eric; **Mann, Andrew W.**; Rojas-Ayala, Barbara; Wilde, Matthew; and Gaidos, Eric; 2013, AJ, 145, 102.

*“On the Nature of Small Planets around the Coolest Kepler Stars”*

Gaidos, Eric; Fischer, Debra A.; **Mann, Andrew W.**; Lépine, Sébastien; 2012, ApJ, 746 36.

*“Transit Analysis Package (TAP and autoKep): IDL Graphical User Interfaces for Extrasolar Planet Transit Photometry”*

Gazak, J. Zachary; Johnson, John A.; Tonry, John; Eastman, Jason; **Mann, Andrew W.**; Agol, Eric; 2012, Advances in Astronomy, 30.

28 refereed papers where my contribution was minor are not listed. [Click for full ADS listing](#)