

# Andrew W. Mann

*Curriculum Vitae*

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CONTACT	UNC Chapel Hill	<i>E-mail:</i> <a href="mailto:awmann@unc.edu">awmann@unc.edu</a>
INFORMATION	Department of Physics & Astronomy 271 Phillips Hall, Office 242 Chapel Hill, NC 27599	Github: <a href="https://github.com/awmann">https://github.com/awmann</a> Homepage: <a href="http://andrewmann.com">http://andrewmann.com</a> <i>Office:</i> (919) 962-9230
RESEARCH INTERESTS	Evolution of planetary systems, machine learning & data mining, techniques for the detection of exoplanets, astrophysical and measurement noise, statistical properties of exoplanets, fundamental properties of late-type and pre-main sequence stars, stellar evolution, techniques for high-precision photometry/spectrophotometry.	
EMPLOYMENT	Assistant Professor, UNC Chapel Hill <i>Hubble</i> Prize Postdoctoral Fellow, Columbia University <i>Hubble</i> Prize Postdoctoral Fellow, UT Austin Visiting Scientist, Boston University <i>Harlan J. Smith</i> Prize Postdoctoral Fellow, UT Austin	2018 – 2017 – 2018 2015 – 2017 2013 – 2014 2013 – 2015
EDUCATION	<b>Institute for Astronomy, University of Hawai'i at Manoa,</b> Ph.D., Astronomy & Astrophysics, August 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, Mathematics minor, June 2008	
PROFESSIONAL ACTIVITIES & SERVICE	<i>TESS</i> Cool Dwarf Team <i>TESS</i> Target Selection working group McDonald Time Allocation Committee Referee for Nature, ApJ, AJ, A&A Texas M Dwarfs and Exoplanets (Tex-MEX) Organizer NESSF reviewer Bashfest SOC, LOC OPTICON external reviewer China Telescope Access Program Reviewer TAURUS Summer Research Program Mentor/Organizer <i>Hubble Space Telescope</i> Time Allocation Committee	2015-present 2015-present 2015-present  2014-2017 2016, 2017 2015, 2017 2015-2017 2016 2016, 2017 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

MENTORSHIP  
& TEACHING

**Students Supervised:**

- Pa Chia Thao; TAURUS Undergraduate; *Spitzer's view of two young exoplanets*  
Megan Ansdell; UH/IfA Graduate Student; *Are circumstellar disks always aligned with their host stars?*  
Xueying Guo; MIT Graduate Student; *The metallicity distribution and hot Jupiter rate of the Kepler field*  
Jennifer Medina; TAURUS Undergraduate; *Measuring  $V_{sin(i)}$  of young planet-hosting stars*  
Nathan Morris; UT Undergraduate; *Rotation periods and ages for K2 planet hosts*  
Richard Seifert; UT Undergraduate; *Cluster Binarity from WIYN/Hydra*

PI	SOAR (Goodman)	6 nights
OBSERVING	<i>Spitzer</i> (IRAC)	150 hours
TIME	Keck (LRIS, NIRC2, ESI) [UH, NASA]	14 nights
	Gemini (GNIRS) [NOAO]	5 nights
	CFHT (ESPaDOnS) [UH]	30 hours
	WIYN (Hydra) [NOAO]	75 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

INVITED	(Colloquium) University of Hawaii at Manoa; Institute for Astronomy	2018
TALKS AND	(Invited) IRTF Future Directions	2018
COLLOQUIA	(Colloquium) UNC Chapel Hill; Department of Physics and Astronomy	2018
	(Colloquium) Michigan State University; Department of Astronomy	2018
	(Colloquium) Ohio State University; Department of Astronomy	2018
	(Colloquium) University of Florida; Department of Astronomy	2018
	(Invited) Frank N. Bash Symposium; New Horizons in Astronomy	2017
	(Invited) EXES Teacher Meeting	2017
	(Invited) Asteroseismology and Optical Interferometry	2017
	(Colloquium) University of Florida; Department of Astronomy	2017
	(Colloquium) Academia Sinica; Institute of Astronomy and Astrophysics	2017
	(Colloquium) University of Minnesota; Institute for Astrophysics	2017
	(Invited) Gasparilla Teacher's Association	2016
	(Colloquium) Institute of Astronomy, National Tsing Hua University	2016
	(Invited) California Institute for Technology (Distinguished Visitor)	2013

*23 contributed/seminar/public talks not listed*

PRESS

RELEASES

[AAS NOVA coverage on the a planetary system we discovered in the Hyades](#)

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

[Bad Astronomy Article on the K2-33 System](#)

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

FIRST

AUTHOR

PUBLICATIONS  
(15)

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

**Mann, Andrew W.**; Vanderburg, Andrew; Rizzuto, Aaron C.; et al.; 2018, AJ 155 4.

*“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  
(23)

*“A Catalog of Cool Dwarf Targets for the Transiting Exoplanet Survey Satellite”*

Muirhead, Philip S.; Dressing, Courtney; **Mann, Andrew W.**; et al.; 2018, AJ 155 180.

*“Zodiacal Exoplanets in Time (ZEIT). VIII. A Two-planet System in Praesepe from K2 Campaign 16”*

Rizzuto, Aaron C.; Vanderburg, Andrew; **Mann, Andrew W.**; et al.; 2018, AJ 156 195.

*“Zodiacal Exoplanets in Time (ZEIT). VII. A Temperate Candidate Super-Earth in the Hyades Cluster”*

Vanderburg, Andrew; **Mann, Andrew W.**; et al.; 2018, AJ 156 195.

*“Zodiacal Exoplanets in Time (ZEIT) V: A Uniform Search for Transiting Planets in Young Clusters Observed by K2”*

Rizzuto, Aaron C.; Vanderburg, Andrew; **Mann, Andrew W.**; et al.; 2018, AJ 154 224.

*“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.**; Lpene, 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.

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