Andrew W. Mann

Curriculum Vitae

Contact Information

University of Texas at Austin
Department of Astronomy
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https://github.com/awmann

Research Interests

Extrasolar planets, planet formation, stellar physics, cool stars, brown dwarfs, high-precision photometry, optical and NIR spectroscopy.

References

Dr. Eric Gaidos — University of Hawai'i (gaidos@hawaii.edu)
Dr. Adam Kraus — University of Texas at Austin (alk@astro.as.utexas.edu)
Dr. Phil Muirhead — Boston University (philipm@bu.edu)

Education

Institute for Astronomy, University of Hawai'i at Manoa,

Ph.D., Astronomy & Astrophysics, 2013

PhD Thesis Topic: *Planets around cool stars: a spectroscopic and photometric study of M dwarfs and their planets*
Advisor: Professor Eric Gaidos

M.S., Astronomy, 2010

Masters Thesis Topic: *The Invisible Majority? Evolution and Detection of Outer Planetary Systems without Gas Giants*
Advisor: Professor Eric Gaidos
Masters Thesis Topic 2: *BHOMs and the Redshift Evolution of the Cluster Merger Fraction*
Advisor: Dr. Harald Ebeling

Department of Physics and Astronomy, Johns Hopkins University,
B.S., Physics, with a minor in Mathematics, June 2008

Employment

University of Texas at Austin,
Hubble Postdoctoral Fellow (2015 – Present)
Harlan J. Smith Postdoctoral Fellow (2013 – 2015)
Institute for Astronomy, University of Hawai'i at Manoa
Research Assistant (2009 – 2013); Advisor: Professor Eric Gaidos
Research Assistant (2008 – 2009); Advisor: Dr. Jeffrey Morgan
Department of Physics and Astronomy, Johns Hopkins University,
Research Assistant (2007 – 2008); Advisor: Professor Rosemary Wyse

Professional Activities & Service

TESS Cool Dwarf Target Selection group	2015-present
TESS Target Selection working group	2015-present
McDonald Time Allocation Committee	2015-present
Texas M Dwarfs and Exoplanets (Tex-MEX) Organizer	2014-present

	Referee for AJ, ApJ, A&A, Nature	
	China Telescope Access Program Reviewer	2016
	NESSF reviewer	2016
	TAURUS Summer Research Program Mentor	2016
	OPTICON external reviewer	2015-2016
	Hubble Space Telescope Time Allocation Committee	2015
	Kepler 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

Grants & Awards (as PI only)

Hubble Postdoctoral Fellowship Program	
Understanding Planets Through Their Host Stars	$360,000
Harlan J. Smith Postdoctoral Fellowship	
Kepler Input Catalog Atlas of Stellar Spectra	$210,000
NASA-Keck Principal Investigator Data Award	
Weighing the Stars: The Mass-Luminosity Relation for M Dwarfs	$41,500
Zodiacal Exoplanets in Time (ZEIT): The AO Follow-up Program	$18,000
NASA-WIYN Principal Investigator Data Award	
Clusters with K2: Systematics from Membership and Binarity	$29,000
ROSES-2015/K2 Guest Observer	
Zodiacal Eoplanets in Time (ZEIT): The Hyades Cluster	$40,000
University Research Council Award (Doctoral level)	$1000

PI Observing Time

Spitzer (IRAC)	106 hours
Keck (LRIS, NIRC2, ESI) [UH, NASA]	8 nights
Gemini (GNIRS) [NOAO]	4 nights
CFHT (ESPaDOnS) [UH]	30 hours
WIYN (Hydra) [NOAO]	40 hours
IRTF (SpeX) [UH, Open]	26 nights
Harlan J. Smith (TS23 Coude, IGRINS) [UT]	24 nights
LCOGT [UT]	60 hours
UH2.2m (SNIFS, OPTIC) [UH]	$>$ 50 nights

Mentorship & Teaching

Students Supervised:

Jennifer Medina; TAURUS Undergraduate; *Measuring Vsin(i) of young planet-hosting stars*

Nathan Morris ; UT Undergraduate; *Rotation periods and ages for K2 planet hosts*

Guest Lectures:

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

Talks

Public:

Board of Visitors Discussion Group	2015
Board of Visitors Science Talk	2014
Friends of the IfA	2012

Invited:

Institute of Astronomy, National Tsing Hua University	2016
Department of Astronomy, Boston University	2014
California Institute for Technology (Distinguished Visitor Program)	2013

18 contributed/seminar talks not listed

First Author Publications (13)

"Zodiacal Exoplanets in Time (ZEIT) IV: seven transiting planets in the Praesepe cluster"
Mann, Andrew W.; Gaidos, Eric; Vanderburg, Andrew; et al.; Submitted to AAS Journals.

"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.; 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.; 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; 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 (17)

"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.; Submitted to ApJ.

"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.

21 papers where my contribution was minor are not listed.