Andrew W. Mann

Curriculum Vitae

CONTACT INFORMATION

UNC Chapel Hill
Department of Physics & Astronomy
271 Phillips Hall, Office 242
Chapel Hill, NC 27599

E-mail: awmann@unc.edu
Github: https://github.com/awmann
Homepage: http://andrewwmann.com
Office: (919) 442-8934

RESEARCH INTERESTS

Evolution of planetary systems, machine learning & data mining, exoplanet demographics, fundamental properties of late-type and pre-main-sequence stars.

EMPLOYMENT

Assistant Professor, UNC Chapel Hill	2018 –
Hubble Prize Postdoctoral Fellow, Columbia University	2017 – 2018
Hubble Prize Postdoctoral Fellow, UT Austin	2015 – 2017
Visiting Scientist, Boston University	2013 – 2014
Harlan J. Smith Prize Postdoctoral Fellow, UT Austin	2013 – 2015

EDUCATION

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

Ph.D., Astronomy & Astrophysics, August 2013: *Planets around cool stars: a spectroscopic and photometric study of M dwarfs and their planets*
Advisor: Prof. Eric Gaidos

M.S., Astronomy, 2010

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

GRANTS & AWARDS (AS PI)

Lifetime funding $2.3M; $1.5M to UNC.

JWST Cycle 1	
The Atmosphere of a 17 Myr Hot Jupiter	$97,020
NSF CAREER	
Fundamental properties of young and pre-main-sequence stars	$634,970
TESS Cycle 3	
The search for young planets with TESS	$40,000
NASA Exoplanet Research Program	
How often are newborn planets aligned with their host star?	$333,400
NASA-Keck Principal Investigator Data Award	
A giant planet transiting a cool white dwarf	$12,550
Heising-Simons Foundation (Scialog)	
Dancing Degenerates: Ages of Brown Dwarfs from White Dwarfs	$55,000
TESS Cycle 2	
Searching For Infant Exoplanets In Young Moving Groups	$50,000
Astrophysics Data Analysis Program (ADAP)	
Spitzer's View of Two Young Exoplanets	$143,198
NASA-WIYN Principal Investigator Data Award	
Studying Young Planets with TESS	$14,200

ROSES-2018/K2 Guest Observer
The search for long-period planets in praesepe $125,000
NASA-WIYN Principal Investigator Data Award
The Mass-Luminosity-Age Relation of Low-Mass Stars $13,575
ROSES-2016/K2 Guest Observer
Zodiacal Exoplanets in Time (ZEIT): The Return to Praesepe $30,000
Hubble Postdoctoral Fellowship Program
Understanding Planets Through Their Host Stars $360,000
Harlan J. Smith Postdoctoral Fellowship
Kepler Input Catalog Atlas of Stellar Spectra $230,000
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 $39,000
ROSES-2015/K2 Guest Observer
Zodiacal Exoplanets in Time (ZEIT): The Hyades Cluster $40,000

Current Professional Activities & Service

Referee for Nature, ApJ, Science, AJ, A&A, MNRAS
UNC Chapel Hill Journal Club 2020-present
SPS advisor 2020-present
PLATO working group 2020-present
TESS SG2, SG4 follow-up groups 2020-present
Co-PI THYME 2018-present
PI ZEIT 2016-present
TESS Target Selection working group 2015-present

Mentorship & Teaching

Recent Students Supervised:
Mackenna Wood; UNC Graduate; *Ages of young clusters*
Jonathan Bush; UNC Graduate; *Searching for young stars with TESS*
Matthew Fields; UNC Graduate; *Disk-star alignment in star-forming regions*
Reilly Milburn; UNC Graduate; *Photoevaporation of atmospheres*
Pa Chia Thao; UNC Graduate (NSF Fellow); *The atmospheres of exoplanets*
Madyson Barber; UNC Undergraduate (Chancellor Fellow); *Young planet search*
Stephen Schmidt; UNC Undergraduate; *Metallicities of M dwarfs*
Bowen Gu; UNC Undergraduate; *Activity and M dwarf fundamental parameters*
SJ Espinosa; UNC Undergraduate; *Wide Binaries in Gaia*
Dylan Owens; UNC Undergraduate; *Eccentricities of young planets*

Classes:
ASTR 202 Introduction to Astrophysics for Majors Fall 2019/2020
ASTR 519/719 Astrophysical Data Spring 2019/2020 & Fall 2021
ASTR 101 Introduction to Astronomy; The Solar System Spring 2021/2022

Publications

Publication metrics as of March 2022:
177 peer-reviewed papers; 21 as first-author.
All publications – 9,000 citations; h-index of 51.
Major contributor/PI publications – 4,800; h-index of 38.

Full list can be accessed on Google Scholar.
Selected publications below, with UNC Lab members in bold:

TESS Hunt for Young and Maturing Exoplanets (THYME). VI. An 11 Myr Giant Planet Transiting a Very-low-mass Star in Lower Centaurus Crux; **Mann, A. W., Wood, M. L.**; **Schmidt, S. P.**; **Barber, M. G.**; et al. AJ 2022 163..156M.

Characterizing Undetected Stellar Companions with Combined Data Sets; **Wood, M. L.**, **Mann, Andrew W.**, Kraus, Adam L. AJ 2021 162...128W.

Zodiacal Exoplanets in Time (ZEIT). IX. A Flat Transmission Spectrum and a Highly Eccentric Orbit for the Young Neptune K2-25b; **Thao, P. C.**, **Mann, A. W.,** Johnson, M. C., Newton, E. R., Guo, X., Kain, I. J., et al. AJ 2020 159...32T.

Zodiacal Exoplanets in Time (ZEIT). VI. A Three-planet System in the Hyades Cluster Including an Earth-sized Planet; **Mann, A. W.,** Vanderburg, A., Rizzuto, A. C., Kraus, A. L., Berlind, P., et al. AJ 2018 155....4M.

How to Constrain Your M Dwarf: Measuring Effective Temperature, Bolometric Luminosity, Mass, and Radius; **Mann, A. W.,** Feiden, G. A., Gaidos, E., Boyajian, T., and von Braun, K. ApJ 2015 804...64M.

Recent Invited Talks and Colloquia

(Colloquium)	Hertzberg Astrophysics	2021
(Invited)	*TESS* Science Team Meeting	2021
(Invited)	Sagan Summer Workshop (speaker and panelist)	2021
(Invited)	THYME conference I	2020
(Invited)	*TESS* Science Team Meeting	2020
(Invited)	UC Irvine Virtual Astronomy Series	2020
(Invited)	Kepler & K2 Science Conference V	2019
(Colloquium)	University of Hawaii at Manoa; Institute for Astronomy	2018
(Invited)	IRTF Future Directions	2018
(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)	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

Press Coverage

NASA coverage of 3-planet system in a river of stars.
Science News coverage of our young planet in a binary system.
JPL release on young giant planet.
AAS NOVA coverage on a planetary system we discovered in the Hyades.
New Planet Offers Clues to the Origin of Close-in Exoplanets.
Newly Discovered Planet in the Hyades Cluster Sheds Light on Planetary Evolution.