Adam L. Kraus

Curriculum Vitae

Univ. of Texas at Austin
Dept. of Astronomy
2515 Speedway C1400, Austin, TX 78712

Email: alk@astro.as.utexas.edu
Phone: (512) 471-7774
http://www.as.utexas.edu/~alk/

EDUCATION

Ph.D., Astrophysics, California Institute of Technology — June 2010
Thesis: (07/2009) *Multiple Star Formation*
B.S., Astronomy (honors), University of Kansas — May 2003
B.S., Physics, University of Kansas — May 2003
B.S., Mathematics, University of Kansas — May 2003

RESEARCH INTERESTS

Star & Planet Formation, Direct Imaging of Young Extra-Solar Planets, Population Statistics of Exoplanetary Systems, Fundamental Properties of Stars, Young Stellar Populations, Multiple Star Systems

POSITIONS

Professor, University of Texas at Austin	2024–
Associate Professor, University of Texas at Austin	2019–2024
Assistant Professor, University of Texas at Austin	2013–2019
Clay Fellow, Harvard-Smithsonian Center for Astrophysics	2012–2013
Hubble Fellow, University of Hawaii - Institute for Astronomy	2009–2012
Graduate Researcher, California Institute of Technology	2003–2009

GRANTS AWARDED

NASA Hubble Space Telescope

PSF-DASH: The IMF to Planetary Masses (2024; AR-17571)	\$75,861 (**PI**)
Discovery of Young Planets with Kernel-Phase Interf. (2021; AR-16612)	\$114,085 (**Ad-PI**)
HST Confirmation of a Candidate Earth Analogue (2019; GO-15685)	\$5,319 (**Ad-PI**)
The IMF to Planetary Masses Across the Milky Way (2017; GO-15238)	\$648,709 (**PI**)
Kernel-Phase Interferometry (2016; AR-14561)	\$141,000 (**Ad-PI**)
FWTau b: BD Disk or Planet Caught in Formation? (2015; GO-14196)	\$21,000 (**Ad-PI**)
Imaging Accreting Protoplanets in IC348 (2015; GO-14172)	\$66,000 (**Co-I**)
The Formation of Wide Planetary-Mass Companions (2012; GO-12507)	\$143,000 (**PI**)
The Mass-Luminosity-Teff Relation of Young Stars (2012; GO-12506)	\$83,000 (**PI**)
The Dynamical Legacy of Star Formation in IC348 (2009; GO-11544)	\$130,000 (**PI**)
The Dynamical Legacy of Star Formation in Orion (2009; AR-11761)	\$75,000 (**PI**)

NASA James Webb Space Telescope

A Census to the Bottom of the IMF in W3 (2024; GO-5437)	\$260,373 (**Ad-PI**)
Snowline pulsations and UV photo-chemistry (2024; GO-4727)	\$19,941 (**Ad-PI**)
NIRCam and MIRI for young starburst cluster Westerlund 2 (2023; GO-3523)	\$38,008 (**Ad-PI**)

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GRANTS AWARDED (continued)

A Census to the Bottom of the IMF in Westerlund 2 (2022; GO-2640)	\$167,293 (**Ad-PI**)
Kernel-Phase for Planet Discovery with JWST (2022; AR-2509)	\$145,090 (**Ad-PI**)
National Science Foundation	
The Mass-Radius Relation of Young Stars from K2 (2017; AST-1716495)	\$319,306 (**PI**)
NASA Astrophysics Data Analysis Program	
The Exoplanet Migration Timescale from K2 Young Clusters (2017)	\$282,246 (**Ad-PI**)
NASA Exoplanet Research Program	
Gaia Unveils the Perilous Lives of Planets in Binary Star Systems (2021)	\$568,134 (**PI**)
The Impact of Stellar Multiplicity on Planetary Systems (2014)	\$253,492 (**PI**)
NASA Spitzer Space Telescope	
A Proper-Motion Census of Star-Forming Regions (2013)	\$331,890 (**PI**)
NASA/JPL SURP	
Mapping the Evolution of Exoplanets with Precision NIR Radial Velocities	\$109,684 (**PI**)
NASA-Keck Observing Program	
An IMF Census in the W3 Star-Forming Region)	\$11,650 (**Ad-PI**)
Orbital Architectures of Planet-Hosting Binary Systems)	\$30,050 (**PI**)
Testing Young Stellar Evolutionary Models with Dynamical Masses)	\$13,050 (**Ad-PI**)
Gaia Unveils the Perilous Lives of Planets in Binaries)	\$14,100 (**PI**)
Young Star Masses in the Gaia Era (2015-19)	\$76,200 (**PI**)
Weighing the Stars: The Mass-Luminosity Relation for M Dwarfs (2015-16)	\$59,500 (**Ad-PI**)
The Impact of Stellar Multiplicity on Planet Occurrence (2014)	\$78,000 (**PI**)
Investigating Orbit Alignment for Planets in Binaries (2014)	\$15,750 (**Co-I**)
The Impact of Stellar Multiplicity on Planet Occurrence (2013)	\$45,500 (**PI**)
Giant Planets Caught at Formation (2012)	\$20,000 (**PI**)
NASA K2 Mission	
Short-Cadence Characterization of K2's Benchmark Planets (GO6; 2018)	\$30,000 (**Ad-PI**)
ZEIT: The Return to Praesepe (GO5; 2017)	\$30,000 (**Ad-PI**)
Planet Evolution and Stellar Parameters at 10-20 Myr (GO5; 2017)	\$50,000 (**Ad-PI**)
ZEIT: The Hyades Cluster (GO4; 2016)	\$40,000 (**Ad-PI**)
Planet Formation at Early Stages of Stellar Evolution (GO4; 2016)	\$50,000 (**Ad-PI**)
The Effect of Wide Binaries on Planet Occurrence (GO3; 2015)	\$20,000 (**Ad-PI**)
NASA TESS Mission	
The Empirical Mass-Radius Relation from 10 to 700 Myr (2021)	\$70,000 (**Ad-PI**)
The Empirical Mass-Radius Relation from 10 to 600 Myr (2020)	\$75,000 (**Ad-PI**)
Planetary Systems at 10-20 Myr After Formation (2018)	\$100,000 (**Ad-PI**)
Disintegrating Rocky Bodies Transiting White Dwarfs (2018)	\$37,000 (**Ad-PI**)
NASA WIYN Observatory	
Planet-Hosting Binaries With Kepler and Gaia (2019-21)	\$16,500 (**PI**)
Clusters with K2 (2015)	\$12,600 (**Ad-PI**)

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GRANTS AWARDED (continued)

Hubble Fellowship Program	
Planets on Wide Orbits with High-Contrast Imaging (Bowler,2016)	\$231,206 (**Ad-PI**)
Understanding Planets Through Their Host Stars (Mann,2015)	\$230,000 (**Ad-PI**)
Formation and Architecture of Outer Solar Systems (Kraus,2009)	\$320,000 (**PI**)
Sagan Fellowship Program	
The Galactic Distribution of Exoplanets (Vanderburg,2017)	\$341,551 (**Ad-PI**)
51 Pegasi b Fellowship Program	
Planet Formation in the Binary Environment (Tofflemire,2020)	\$374,719 (**Ad-PI**)
Planet Formation and Evolution Using Young Populations (Rizzuto,2018)	\$374,937 (**Ad-PI**)
NASA Earth & Space Science Fellowships	
Demographics and Circumplanetary Disks of Wide Planets (Martinez,2017)	\$135,000 (**Ad-PI**)
NASA Space Interferometer Mission	
Measuring the Kinematics of Young Stars with SIM (2008)	\$75,000 (**PI**)

OBSERVING TIME AWARDED

Hubble Space Telescope (WFPC2, WFC3)	199 orbits
Hubble Space Telescope (WFPC2, WFC3)	9.4 hours
Keck 10m Telescopes (Four Instruments)	65 nights
Spitzer Space Telescope: (IRAC)	580 hours
Very Large Telescope: (NACO)	4.5 nights
Gemini Observatory: (GPI, IGRINS, ‘Alopeke)	94.6 hours
Magellan Observatory: (MIKE, FIRE)	7 nights
Hobby-Eberly Telescope (HRS)	30 hours
Palomar 200-inch Telescope: (Four Instruments)	41 nights
McDonald Obs. 2.7m Telescope: (TS23, IGRINS)	26 nights
UH 2.2m Telescope: (Two Instruments)	28 nights
WIYN 3.5m Telescope: (NESSI)	13 nights
CTIO 1.5m Telescope: (CHIRON)	6.7 nights

HONORS AND AWARDS

BoV Excellence in Teaching Award	2018
Clay Fellow	2012
Hubble Fellow	2009
Goldwater Scholar	2002
Chancellor’s Scholar, University of Kansas	1998
Summerfield Scholar, University of Kansas	1998
National Merit Scholar	1998

PROFESSIONAL SERVICE

James Webb Space Telescope Proposal Review Panel Chair (Cycle 2)	2023
Hubble Space Telescope Proposal Review Panel (Cycles 19, 20, 23, 30)	2011-2022
Hubble Space Telescope Proposal Review Panel Chair (Cycle 25)	2017
National Optical Astronomy Observatory Proposal Review Panel	2014-2016
Spitzer Space Telescope Proposal Review Panel (Cycles 10,13)	2013-2017

University of Hawaii-IfA Time Allocation Committee member	2010-2011
NSF Grant Review Panel	2015,2018
NASA ADAP Grant Review Panel	2020
NASA EPRV Grant Review Panel	2021
NASA APRA/SAT Grant Review Panel	2024
Referee for *Science*, *Nature*, *ApJ*, *ApJL*, *AJ*, *MNRAS*, *PASJ*, *A&A*	2007-present

UNIVERSITY SERVICE

Graduate Admissions Committee	2013-2020
	2022-2024
Graduate Admissions Committee Chair	2017-2020
Undergrad Studies Executive Committee Chair	2019-
Undergrad Studies Executive Committee	2015-
Lead Undergraduate Advisor	2015-2020
Chair, Astronomy UG Curriculum Review	2018-2019
Astronomy Dept Evaluations Committee	2019-2021
	2022-2024
Astronomy Dept Teaching Evaluation Committee	2019
Provost's Postdoc Fellow Committee (Astro)	2021
CNS Course & Curriculum Committee	2015-2018
CNS Dean's Scholars Steering Committee	2015-
UGS Sci/Tech Core Assessment Committee	2017
Colloquium Organizer	2013-2015
GMT Science Advisory Committee	2017-2020
McDonald Observatory Faculty Advisory Committee	2017-
51 Pegasi b Fellowship Selection Committee	2017-
51 Peg b Liaison for UT	2022-

GRADUATE STUDENTS MENTORED

N. Burns-Watson (UT): Planets in Binaries (w/ A. Rizzuto)	2024-
R. Kerr (UT): Young Stars (w/ A. Rizzuto)	2019-2024
K. Sullivan (UT): Star Formation, Planets in Binaries	2018-2023
D. Krolikowski (UT): Planetary Systems in Young Stellar Populations	2016-2022
S. Factor (UT): Kernel-Phase Interferometry of Young Stars	2015-
R. Martinez (UT): Searching for Accreting Planets with Spitzer	2014-2021
K. Gullikson (UT): Searching for Low-Mass Companions to A/B Stars	2013-2016
A. Riddle (UT): IR Spectroscopy of Low-Mass EBs with IGRINS	2013-2016
K. Aller (UH): A PS1+UKIDSS Search for Wide Planets in Upper Sco	2011-2012

UNDERGRADUATE STUDENTS MENTORED

P. Keating (UT): Orbits of Wide-Orbit Exoplanets	2023-2024
N. Burns-Watson (UT REU): Planets in Binary Star Systems	2023-2024
L. Pearce (UT): The Orbital Parameters of Wide-Orbit Exoplanets	2017-2019
S. Kamon (UT): Planetary Companions to Young Stars in IC348	2016
K. Hawkins (UH): Hypervelocity Stars	2012-2013
L. Urban (UH): Young Stars in Orion	2011

POSTDOCTORAL RESEARCHERS MENTORED

M. De Furio (NSF AAPF Fellow, UT): Form. & Evol. of Multiple Star Systems	2023-
S. Factor (UT): Binarity of Brown Dwarfs	2023-
A. Medina (Provost's Early Career Fellow, UT): Habitability of Low-Mass Stars	2021-2023
W. Best (UT): The IMF of Brown Dwarfs	2018-
B. Tofflemire (Postdoc + 51Pegb Fellow, UT): Young Eclipsing Binaries	2018-
A. Vanderburg (Sagan Fellow, UT): Transiting Planetary Systems	2017-2020
B. Bowler (Hubble Fellow, UT): Directly Imaged Planetary Systems	2016-2017
A. Rizzuto (Postdoc + 51Pegb Fellow, UT): Star and Planet Formation	2014-2021
A. Mann (McDonald + Hubble Fellow, UT): Young Planets, Host Stars	2013-2017
T. Dupuy (Harvard/UT): Astrometry of Cool Dwarfs and Young Stars	2013-2017

Talks Since 2014

Baylor University (invited)	01/29/14
Giant Planets Caught at Formation	
UCLA (invited)	02/29/14
The Impact of Stellar Multiplicity on Planet Formation	
Cool Stars 18 (invited)	06/08/14
The Fundamental Properties of Cool Stars	
Early Life of Star Clusters (invited)	11/04/14
Stellar Multiplicity in Primordial Populations	
Star and Planet Formation in the Southwest 1 (invited)	03/26/15
The Impact of Stellar Multiplicity on Planet Formation	
University of Kansas (invited)	04/13/15
The Impact of Stellar Multiplicity on Planet Formation	
Young Stars & Planets Near the Sun (invited)	05/12/15
Binarity of Young Stars	
McDonald Obs. Board of Visitors (invited)	07/11/15
Planet Formation in Action	
Building Astronomy in Texas (invited)	09/26/15
The Formation and Evolution of Planetary Systems	
K2 Science Conference	11/02/15
Constructing the Mass-Radius Relation at 10 Myr from K2	
Rice University (invited)	01/27/16
The Impact of Stellar Multiplicity on Planet Formation	
UMass-Amherst (invited)	02/04/16
The Impact of Stellar Multiplicity on Planet Formation	
UT-Austin Astronomy Students' Association (invited)	03/09/16
Planet Formation in Action	
Cool Stars 19	06/07/16
Constructing the Mass-Radius Relation at 10 Myr from K2	
Exoplanets 1(invited)	07/08/16
Planet Formation in Action	
Northeast Kansas Astronomy League (invited)	10/27/16

Planet Formation in Action
Formation & Evolution of Exoplanets 03/30/17
The Impact of Stellar Multiplicity on Planet Formation
Kepler Science Conference 4 06/21/17
The Impact of Stellar Multiplicity on Planet Formation
Know Thy Star, Know Thy Planet 10/11/17
The Impact of Stellar Multiplicity on Planet Formation
Gemini Observatory (invited) 11/24/17
The Impact of Stellar Multiplicity on Planet Formation
Stars and Clusters with K2 (invited) 01/17/18
The Mass-Radius Relation of Young Stars
Univ. of Michigan (invited) 01/25/18
The Impact of Stellar Multiplicity on Planet Formation
Star and Planet Formation in the Southwest 2 (invited) 03/15/18
Graduate Admissions and the Physics GRE
UT-Austin Planetary Habitability (invited) 06/19/18
Solar System Formation
UT-Austin Planetary Habitability (invited) 06/26/18
Planetary Demographics
Cool Stars 20 07/30/18
The Eclipsing Binary Data Challenge
Astronomy on Tap 10/16/18
Planets in Binary Star Systems
Kepler & K2 SciCon V 03/06/19
The Impact of Stellar Multiplicity on Planet Formation
Univ. of Arizona (invited) 04/25/19
The Impact of Stellar Multiplicity on Planet Formation
UC - Santa Cruz (invited) 10/30/19
The Impact of Stellar Multiplicity on Planet Formation
Sagan Workshop (invited) 07/22/21
The Impact of Binary Stars on Protoplanetary Disks and Planet Formation
Extreme Solar Systems 5 03/20/24
The Impact of Binary Stars on Planetary Systems
Know Thy Star 2 (invited) 02/04/25
The Impact of Binary Stars on Protoplanetary Disks and Planet Formation