

ETHAN A. KRUSE

eakruse@uw.edu
(845)·499·1384
<http://staff.washington.edu/eakruse/>
<https://github.com/ethankruse/>

Dept. of Astronomy
Box 351580, U.W.
Seattle, WA 98195

EDUCATION

University of Washington Ph.D. in Astronomy	Expected ~2018
University of Washington M.S. in Astronomy	December 2013
Harvard University B.A. cum laude in Astrophysics Minor in Computer Science	May 2012

HONORS & AWARDS

Blue Waters Graduate Fellow	2017-2018
National Science Foundation Graduate Research Fellowship	2013 - 2016
Harvard Hoopes Prize for Outstanding Senior Thesis	2012

RESEARCH EXPERIENCE

Doctoral Research Dr. Eric Agol +) Discovering and characterizing the Kepler & K2 planet population, focusing on those exhibiting transit timing variations	2012 - Present Seattle, WA
Senior Thesis Dr. Darin Ragozzine +) Two semesters searching for circumbinary planets in the Kepler data	2011-2012 Cambridge, MA
NRAO REU Dr. Scott Ransom +) Extensive GPU coding with CUDA to develop a gamma-ray pulsar search of Fermi data	Summer 2011 Charlottesville, VA
Space Telescope Science Institute REU Dr. Jason Tumlinson +) HST spectral analysis on the COS-Halos team with focus on H ₂ absorption analysis	Summer 2010 Baltimore, MD
Harvard PRISE Research Fellow Dr. Edo Berger +) Short-term M-dwarf magnetic field variability using SDSS spectra	Summer 2009 Cambridge, MA

TEACHING EXPERIENCE

University of Washington TA	Seattle, WA
+) Astronomy 101 with Dr. Chris Laws	Spring 2013
+) Astronomy 101 with Dr. Oliver Fraser	Winter 2013
+) Astronomy 150 with Dr. Toby Smith	Autumn 2012

SCIENCE COMMUNICATION, OUTREACH, & SERVICE

Seattle Astronomical Society Invited Talk	September 2016
Seattle Astronomy on Tap Invited Talk	April 2016
\$13,000 University of Washington STF Grant for Computing Resources	2016
Kepler Animation with 700,000+ Views Featured on APOD	December 2015
University of Washington Curriculum Review Committee	2015-2016
Moderator and Contributor on reddit AskScience	2014-Present
University of Washington Faculty Search Committee	2014-2015
University of Washington Graduate Representative	2014-2016
Science Podcast Discussing KOI-3278	April 2014
Weekly arXiv Discussion Leader	2013-Present
Science Olympiad Event Coordinator	2009 - 2011

PUBLICATIONS

Citations and citations per year compiled from [ADS](#) on 30 August 2017.

#	PAPER TITLE	First Author	E. Kruse	-- of N Authors	Journal	(Year)	Citations	per year
5.	A SEVEN-PLANET RESONANT CHAIN IN TRAPPIST-1	R. Luger	3	33	<i>Nature Astronomy</i>	(2017)	10	arXiv 36.5
4.	EVEREST: PIXEL LEVEL DECORRELATION OF K2 LIGHT CURVES	R. Luger	3	7	<i>AJ</i>	(2016)	23	arXiv 25.4
3.	KOI-3278: A SELF-LENSING BINARY STAR SYSTEM	E. Kruse	1	2	<i>Science</i>	(2014)	18	arXiv 5.3
2.	KEPLER-47: A TRANSITING CIRCUMBINARY MULTIPLANET SYSTEM	J. Orosz	31	39	<i>Science</i>	(2012)	171	arXiv 34.1
1.	CHROMOSPHERIC VARIABILITY IN SLOAN DIGITAL SKY SURVEY M DWARFS. II. SHORT-TIMESCALE H α VARIABILITY	E. Kruse	1	7	<i>ApJ</i>	(2010)	20	arXiv 2.9

RESEARCH PRESENTATIONS

9. POSTER. K2 PLANET CANDIDATES IN CAMPAIGNS 0-8
E. Kruse et al., *Kepler & K2 Science Conference IV* (Moffett Field, CA 2017).
8. TALK. HUNDREDS OF NEW K2 PLANET CANDIDATES
E. Kruse et al., *Formation and Dynamical Evolution of Exoplanets* (Aspen, CO 2017).
7. POSTER. DOUBLING THE NUMBER OF K2 PLANET CANDIDATES
E. Kruse et al., *Exoplanets I* (Davos, Switzerland 2016).
6. TALK. KEPLERS MISSING PLANETS: USING QATS TO SEARCH FOR PLANETS WITH TTVs
E. Kruse & E. Agol, *AAS Meeting 225*, 105.04 (Seattle, WA 2015).
5. TALK. DISCOVERY OF A NEW CLASS OF ECLIPSING BINARY
E. Agol & **E. Kruse**, *University of Washington Astronomy Colloquium*, (Seattle, WA 2014).
4. POSTER. SEARCHING FOR EXTREME TTV PLANETS WITH QATS
E. Kruse & E. Agol, *Kepler Science Conference II*, 1.307 (Moffett Field, CA 2013).
3. TALK. A SYSTEMATIC SEARCH FOR CIRCUMBINARY PLANETS
E. Kruse, *Exoplanets in Multi-planet Systems in the Kepler Era* (Aspen, CO 2013).
2. POSTER. SPEEDING UP BLIND GAMMA-RAY PULSAR SEARCHES WITH GPUS
E. Kruse & S. Ransom, *AAS Meeting 219*, 237.05 (Austin, TX 2012).
1. POSTER. COS OBSERVATIONS OF MOLECULAR H₂ AT $z = 0.248$
E. Kruse, J. Tumlinson, C. Thom, K. Sembach, *AAS Meeting 217*, 335.09 (Seattle, WA 2011).

SELECTED PRESS COVERAGE

[Astronomy Picture of the Day \(APOD\): Kepler Orrery IV](#)

[Scientific American: White Dwarf Acts as Cosmic Magnifying Glass](#)

[Tech Times: KOI-3278, a bizarre 'self-lensing' binary star system, discovered in Lyra](#)

[Gizmodo: A Mesmerizing Animation Shows Just How Weird Our Solar System Is](#)