

Kevin Charles Schlaufman

77 Massachusetts Ave., 37-685 Cambridge, MA 02139 · (617) 324-3619 · kschlauf@mit.edu · www.kevinschlaufman.com

Professional Appointments

Kavli Fellow, Kavli Institute for Astrophysics and Space Research, MIT 2012 – Present
Senior Data Scientist, LinkedIn 2011 – 2012

Education

UC Santa Cruz, MS and PhD in Astronomy and Astrophysics 2006 – 2011
Stanford University, MS in Scientific Computing and Computational Mathematics 2004 – 2006
Statistics Concentration
Penn State, BS in Mathematics and BS in Astronomy and Astrophysics 2000 – 2004
Honors and High Distinction plus minor in Physics

Honors and Awards

Infinite Kilometer Award, School of Science, MIT 2013
Recognized for routinely working beyond my assigned responsibilities and for exceptional contributions to the community
Chancellor's Dissertation-Year Fellowship, Graduate Division, UC Santa Cruz 2010 – 2011
Recognized as part of the top 10% of my PhD graduating class and awarded \$35,000 grant
Graduate Research Fellowship, National Science Foundation 2007 – 2010
Recognized as part of the top 5% of all science and engineering PhD students nationwide and awarded \$121,500 grant
Whitford Prize, Astronomy and Astrophysics Department, UC Santa Cruz 2008
Recognized as outstanding overall student in the first two years of the PhD program
Marshall Award, Astronomy and Astrophysics Department, Penn State 2004
Recognized as the top undergraduate major in my graduating class
Evan Johnson Award, Mathematics Department, Penn State 2003 & 2004
Recognized as one of the top students in the mathematics major
Kermit C. Anderson Scholarship, Mathematics Department, Penn State 2003
Recognized as one of the top students in the mathematics major
Evan Pugh Scholar Award, Penn State 2003
Recognized as top 0.5% percent of graduating class
Elected to $\phi\beta\kappa$, Penn State 2003

Volunteer and Leadership Activities

Co-Organizer, MIT MKI IAP Activities 2014
Co-Organizer, MIT MKI Postdoc Symposium 2013
Lecturer, MIT MKI IAP Lecture Series 2013
Referee, Astrophysical Journal, A&A, NASA, NSF, and Science 2011 – Present
Admissions Committee, Astronomy and Astrophysics Department, UC Santa Cruz 2011
Reviewed 176 applications and interviewed 30 applicants
Science Speaker, Lick Observatory 2008 – 2011
Delivered two hour-long popular talks about recent developments in astronomy and astrophysics
Graduate Representative, Academic Senate Committee on Planning and Budget, UC Santa Cruz 2008 – 2010
Monitored all aspects of university budget
Committee Chair, Graduate Student Health Insurance Committee, UC Santa Cruz 2008 – 2009
Lead committee efforts to improve graduate student health care
Outreach Coordinator, Kavli Institute for Particle Astrophysics and Cosmology 2004 – 2005
Organized astrophysics group contribution to Stanford Linear Accelerator Center's Kid's Day outreach event

Invited Colloquia

Johns Hopkins University, Henry A. Rowland Department of Physics & Astronomy April 2015
Leiden University, Leiden Observatory March 2015
UC Berkeley, Astronomy Department March 2015
University of Toronto, Dunlap Institute for Astronomy & Astrophysics February 2015
Princeton University, Department of Astrophysical Sciences February 2015
Johns Hopkins University, Henry A. Rowland Department of Physics & Astronomy March 2014

University of Virginia, Department of Astronomy
MIT, Physics Faculty Lunch

March 2014
September 2013

Seminars

Yale University , Stellar Tea Talk	November 2013
Harvard-Smithsonian Center for Astrophysics , Solar, Stellar, and Planetary Sciences Division	May 2013
Boston University , Department of Astronomy	April 2013
Princeton University , Department of Astrophysical Sciences	December 2010
Harvard-Smithsonian Center for Astrophysics , Institute for Theory and Computation	September 2010
Space Telescope Science Institute	September 2010
Penn State , Department of Astronomy & Astrophysics	September 2010
Stanford University , Kavli Institute for Particle Astrophysics and Cosmology	April 2010

Invited Conference Talks

Planetary Population Synthesis: The Predictive Power of Planet Formation Theory <i>Kepler, Exoplanet Population Synthesis, and Tidal Evolution</i>	2011
--	------

Other Conference Talks

WISE at 5: Legacy and Prospects <i>The Best and Brightest Metal-Poor Stars</i>	2015
The Milky Way and its Stars: Stellar Astrophysics, Galactic Archaeology, and Stellar Populations <i>The Best and Brightest Metal-Poor Stars</i>	2015
225th American Astronomical Science Meeting <i>The Best and Brightest Metal-Poor Stars</i>	2015
Wide-field InfraRed Surveys: Science and Techniques <i>An Infrared Search for the First Stars</i>	2014
Characterizing Planetary Systems Across the HR Diagram <i>Observational Insight into the Effect of Stellar Evolution on Exoplanet Systems</i>	2014
223rd American Astronomical Science Meeting <i>The Fate of Hot Jupiters</i>	2014
The Second Kepler Science Conference <i>Planet Formation in Kepler Multiplanet Systems</i>	2013
Exoplanets in Multi-body Systems in the Kepler Era <i>Metallicity Trends in Kepler Planets</i>	2013
221st American Astronomical Science Meeting <i>Hosts of Multiplanet Systems are Preferentially Metal-Rich</i>	2013
The First Kepler Science Conference <i>Kepler Exoplanet Candidate Host Stars are Preferentially Metal Rich</i>	2011
217th American Astronomical Science Meeting <i>Halo Substructure and Milky Way Formation</i>	2011
Cosmology in Northern California '10 <i>Halo Substructure and Milky Way Formation</i>	2010
SEGUE-2 Science Meeting <i>The Chemistry, Kinematics, and Origin of Elements of Cold Halo Substructure (ECHOS)</i>	2010
The Milky Way and the Local Group - Now and in the Gaia Era <i>The Stellar Accretion History of the Milky Way Through Cold Halo Substructure</i>	2009
Cosmology in Northern California '09 <i>Insight Into the Formation of the Milky Way Through Cold Inner Halo Substructure</i>	2009
Santa Cruz Galaxy Formation Workshop 2008 <i>The Stellar Accretion History of the Milky Way Through Halo Substructure</i>	2008
Sloan Digital Sky Survey Science: From Asteroids To Cosmology <i>The Stellar Accretion History of the Milky Way Through Halo Substructure</i>	2008

Peer-Reviewed First-Author Publications

- Schlaufman, K.C., 2015, "A Continuum of Planet Formation Between 1 and 4 Earth Radii", [Astrophysical Journal Letters](#), 799, L26

11. **Schlaufman, K.C.** & Casey, A.R. 2014, "The Best and Brightest Metal-poor Stars", *Astrophysical Journal*, 797, 13
10. **Schlaufman, K.C.**, 2014, "Tests of In-Situ Formation Scenarios for Compact Multiplanet Systems", *Astrophysical Journal*, 790, 91
9. **Schlaufman, K.C.**, & Winn, J.N. 2013, "Evidence for the Tidal Destruction of Hot Jupiters by Subgiant Stars", *Astrophysical Journal*, 772, 143
8. **Schlaufman, K.C.**, Rockosi, C.M., Lee, Y.S., Beers, T.C., Allende Prieto, C., Rashkov, V., Madau, P., & Bizyaev, D. 2012, "Insight Into the Formation of the Milky Way Through Cold Halo Substructure. III. Statistical Chemical Tagging in the Smooth Halo", *Astrophysical Journal*, 749, 77
7. **Schlaufman, K.C.**, & Laughlin, G. 2011, "Kepler Exoplanet Candidate Host Stars Are Preferentially Metal Rich", *Astrophysical Journal*, 738, 177
6. **Schlaufman, K.C.**, Rockosi, C.M., Lee, Y.S., Beers, T.C., & Allende Prieto, C. 2011, "Insight Into the Formation of the Milky Way Through Cold Halo Substructure. II. The Elemental Abundances of ECHOS", *Astrophysical Journal*, 734, 49
5. **Schlaufman, K.C.**, Lin, D.N.C., & Ida, S. 2010, "A Population of Very Hot Super-Earths in Multiple-Planet Systems Should be Uncovered by Kepler", *Astrophysical Journal Letters*, 724, L53
4. **Schlaufman, K.C.**, & Laughlin, G. 2010, "A Physically-Motivated Photometric Calibration of M Dwarf Metallicity", *Astronomy & Astrophysics*, 519, A105
3. **Schlaufman, K.C.**, 2010, "Evidence of Possible Spin-Orbit Misalignment Along the Line of Sight in Transiting Exoplanet Systems", *Astrophysical Journal*, 719, 602
2. **Schlaufman, K.C.**, et al. 2009, "Insight Into the Formation of the Milky Way Through Cold Halo Substructure. I. The ECHOS of Milky Way Formation", *Astrophysical Journal*, 703, 2177
1. **Schlaufman, K.C.**, Lin, D.N.C., & Ida, S. 2009, "The Signature of the Ice Line and Slow Type I Migration in the Observed Exoplanet Mass-Semimajor Axis Distribution", *Astrophysical Journal*, 691, 1321

Peer-Reviewed Second-Author Publications

1. Casey, A.R. & **Schlaufman, K.C.** 2015, "Chemistry of the Most Metal-poor Stars in the Bulge and the $z \geq 10$ Universe", *Astrophysical Journal*, in press

Peer-Reviewed Nth-Author Publications

16. Casey et al. 2014, "The Aquarius Co-Moving Group is Not a Disrupted Classical Globular Cluster", *MNRAS*, 443, 828
15. Abbott et al. 2006, "Joint LIGO and TAMA200 Search for Gravitational Waves from Inspiralling Neutron Star Binaries", *Physical Review D*, 73, 102002
14. Abbott et al. 2006, "Search for Gravitational Waves from Binary Black Hole Inspirals in LIGO Data", 2006, *Physical Review D*, 73, 062001
13. Abbott et al. 2005, "Upper Limits from the LIGO and TAMA Detectors on the Rate of Gravitational-wave Bursts", *Physical Review D*, 72, 102004
12. Abbott et al. 2005, "First All-sky Upper Limits from LIGO on the Strength of Periodic Gravitational Waves using the Hough Transform", *Physical Review D*, 72, 102004
11. Abbott et al. 2005, "Search for Gravitational Waves from Primordial Black Hole Binary Coalescences in the Galactic Halo", *Physical Review D*, 72, 082002
10. Abbott et al. 2005, "Search for Gravitational Waves from Galactic and Extra-galactic Binary Neutron Stars", *Physical Review D*, 72, 082001
9. Abbott et al. 2005, "Upper Limits on Gravitational Wave Bursts in LIGO's Second Science Run", *Physical Review D*, 72, 062001

8. Abbott et al. 2005, "Search for Gravitational Waves Associated with the Gamma Ray Burst GRB030329 Using the LIGO Detectors", *Physical Review D*, 72, 042001
7. Abbott et al. 2005, "Limits on Gravitational-Wave Emission from Selected Pulsars Using LIGO Data", *Physical Review Letters*, 94, 181103
6. Abbott et al. 2004, "Analysis of First LIGO Science Data for Stochastic Gravitational Waves", *Physical Review D*, 69, 122004
5. Abbott et al. 2004, "Analysis of LIGO Data for Gravitational Waves from Binary Neutron Stars", *Physical Review D*, 69, 122001
4. Abbott et al. 2004, "First Upper Limits from LIGO on Gravitational Wave Bursts", *Physical Review D*, 69, 102001
3. Abbott et al. 2004, "Setting Upper Limits on the Strength of Periodic Gravitational Waves from PSR J1939+2134 Using the First Science Data from the GEO 600 and LIGO Detectors", *Physical Review D*, 69, 082004
2. Abbott et al. 2004, "Upper Limits on the Strength of Periodic Gravitational Waves from PSR J1939+2134", *Classical and Quantum Gravity*, 21, 671
1. Abbott et al. 2004, "Detector Description and Performance for the First Coincidence Observations Between LIGO and GEO", *Nuclear Instruments and Methods in Physics Research A*, 517, 154