

Edward F. Schlafly
Curriculum Vitae

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ADDRESS: Max Planck Institut für Astronomie
 Königstuhl 17
 69117 Heidelberg, Germany

PERSONAL: Born 17 October, 1984, US citizen

EDUCATION: Ph.D., Physics, Harvard University, 2012
 Dissertation: *Dust in Large Optical Surveys*, supervised by Doug Finkbeiner
 B.S., Physics, Stanford University, 2007

POSITIONS:

Starting December 2015
Hubble Fellow, Lawrence Berkeley National Laboratory

August 2012 – November 2015
Postdoctoral Researcher, Max Planck Institut für Astronomie
Supervisor: Hans-Walter Rix

August 2007 – July 2012
Ph.D. student, Physics, Harvard University
Advisor: Douglas P. Finkbeiner

RESEARCH INTERESTS:

- Interstellar dust, interstellar medium, bubbles
- Galactic structure, streams, dwarf galaxies
- Large surveys

AWARDS and FELLOWSHIPS:

- 2011 Harvard Graduate School of Arts and Sciences Merit Fellowship
- 2008 Harvard Physics Purcell Fellowship
- 2007 Jeff Willick Memorial Award (astronomy), Stanford Physics
- 2007 Sterling Award for Scholastic Achievement, Stanford University
- 2007 Departmental Honors, Stanford Physics

RESEARCH ADVISED:

(graduate)

- 2013— Nina Hernitschek (with H. W. Rix)
- 2012— Albert Lee (with D. P. Finkbeiner)
- 2010— Gregory Green (with D. P. Finkbeiner)

(undergraduate)

- 2015 Iraj Eshghi
- 2014 Melih Ozcelik (with H. W. Rix)

TEACHING EXPERIENCE:

- 2009 Harvard Undergraduate Physics 15a (mechanics) lab teaching assistant
- 1999—2003 Aim High St. Louis Calligraphy Teacher (5 week summer school)

COLLABORATIONS:

- APOGEE Reddening Survey (PI)
- Pan-STARRS1
- MANGA
- DECaLS

SELECTED TALKS:

- “The Optical-Infrared Extinction Curve and its Variation . . .” Strasbourg, 2015.
- “Mapping Dust in 3D with Photometry.” *EWASS*, 2015.
- “3D dust mapping reveals that Orion forms part of a large ring of dust.” Vienna, 2015.
- “The Milky Way’s Dust in Three Dimensions.” MPIA, 2015.
- “Dust, gas, and the Milky Way’s rotation curve.” MIRA, 2015.
- “Dust with Gaia.” Ringberg, 2014.
- “The Milky way’s Dust and PS1.” STScI, 2014.
- “The Dust to 5 kpc from PS1.” *AAS 223*, 2014.
- “A Catalog of Distances to Molecular Clouds from PS1. . .” NCU, Taiwan, 2013.
- “Mapping the Galaxy’s Dust in 3D with PS1.” Strasbourg, 2013.
- “Mapping the Galaxy’s dust with PS1.” University of Hawaii, 2013.
- “PS1 and BigBOSS.” Institut Henri Poincaré, 2012.
- “3D Maps of the Galaxy’s Dust.” Durham University, 2012.
- “Photometric Calibration of the First 1.5 Years of the PS1 Survey.” LBL, 2012.
- “Reconstructing the 3D Distribution of Dust and Stars with PS1.” Leiden, 2011.
- “Measuring Reddening with SDSS Stellar Spectra. . .” *AAS 217*, 2011.
- “The Blue Tip of the Stellar Locus: Measuring Reddening. . .” *AAS 216*, 2010.
- “3D Dust with PS1 and Side of Calibration.” Queen’s University Belfast, 2010.

FIRST AUTHOR PUBLICATIONS:

1. *The Optical-Infrared Extinction Curve and its Variation in the Milky Way.* **E. F. Schlafly**, A. M. Meisner, A. M. Stutz, et al., November 2015, under collaboration review.
2. *Three-dimensional Dust Mapping Reveals that Orion Forms Part of a Large Ring of Dust.* **E. F. Schlafly**, G. Green, D. P. Finkbeiner, et al., 2015, ApJ, 799, 116.
3. *A Map of Dust Reddening to 4.5 kpc from Pan-STARRS1.* **E. F. Schlafly**, G. Green, D. P. Finkbeiner, et al., 2014, ApJ, 789, 15.
4. *A Large Catalog of Accurate Distances to Molecular Clouds from PS1 Photometry.* **E. F. Schlafly**, G. Green, D. P. Finkbeiner, et al., 2014, ApJ, 786, 29. **23 citations**
5. *Photometric Calibration of the First 1.5 Years of the Pan-STARRS1 Survey.* **E. F. Schlafly**, D. P. Finkbeiner, M. Juric, et al, 2012, ApJ, 756, 158. **84 citations**
6. *Measuring Reddening with SDSS Stellar Spectra and Recalibrating SFD.* **E. F. Schlafly**, D. P. Finkbeiner, 2011, ApJ, 737, 103. **929 citations**
7. *The Blue Tip of the Stellar Locus: Measuring Reddening with the SDSS.* **E. F. Schlafly**, D. P. Finkbeiner, D. J. Schlegel, et al., 2010, ApJ, 725, 1175. **62 citations**

2nd OR 3rd AUTHOR PUBLICATIONS:

8. *The stellar population structure of the Galactic disk.* J. Bovy, H.-W. Rix, **E. F. Schlafly**, et al., 2015, submitted to ApJ.
9. *A Three-dimensional Map of Milky Way Dust.* G. M. Green, **E. F. Schlafly**, D. P. Finkbeiner, et al., 2015, ApJ, 810, 25.
10. *Serendipitous discovery of a thin stellar stream near the Galactic bulge in the Pan-STARRS1 3pi Survey.* E. J. Bernard, A. M. N. Ferguson, **E. F. Schlafly**, et al., 2014, MNRAS, 443, 84.
11. *Galactic globular and open cluster fiducial sequences in the Pan-STARRS1 photometric system.* E. J. Bernard, A. M. N. Ferguson, **E. F. Schlafly**, et al., 2014, MNRAS, 442, 2999.
12. *The Complex Structure of Stars in the Outer Galactic Disk as Revealed by Pan-STARRS1.* C. T. Slater, E. Bell, **E. F. Schlafly**, et al., 2014, ApJ, 791, 9.
13. *Measuring Distances and Reddenings for a Billion Stars: Toward a 3D Dust Map from Pan-STARRS 1.* G. Green, **E. F. Schlafly**, D. P. Finkbeiner, et al., 2014, ApJ, 783, 114. **22 citations**

14. *Perseus I: A Distant Satellite Dwarf Galaxy of Andromeda*. N. F. Martin, **E. F. Schlafly**, C. T. Slater, et al., 2013, ApJL, 779, 10.
15. *Lacerta I and Cassiopeia III. Two Luminous and Distant Andromeda Satellite Dwarf Galaxies Found in the 3pi Pan-STARRS1 Survey*. N. F. Martin, C. T. Slater, **E. F. Schlafly**, et al., 2013, ApJ, 772, 15. **29 citations**
16. *The Pan-STARRS 1 Photometric Reference Ladder, Release 12.01*. E. A. Magnier, **E. F. Schlafly**, D. P. Finkbeiner, et al., 2013, ApJS, 205, 20. **48 citations**
17. *A Pan-STARRS1 View of the Bifurcated Sagittarius Stream*. C. T. Slater, E. F. Bell, **E. F. Schlafly**, et al., 2013, ApJ, 762, 6.

OTHER PUBLICATIONS:

18. *Sagittarius II, Draco II and Laevens 3: Three New Milky Way Satellites Discovered in the Pan-STARRS 1 3pi Survey*. B. P. M. Laevens et al. [21 coauthors including **E. F. Schlafly**], 2015, ApJ, 813, 44.
19. *The Nature and Orbit of the Ophiuchus Stream*. B. Sesar et al. [22 coauthors including **E. F. Schlafly**], 2015, ApJ, 809, 59.
20. *The Time Domain Spectroscopic Survey: Variable Selection and Anticipated Results*. E. Morganson et al. [39 coauthors including **E. F. Schlafly**], 2015, ApJ, 806, 244.
21. *Constraining the Radio-loud Fraction of Quasars at $z > 5.5$* . E. Bañados et al. [20 coauthors including **E. F. Schlafly**], 2015, ApJ, 804, 118.
22. *A nearby M star with Three Transiting Super-Earths Discovered by K2*. I. Crossfield et al. [26 coauthors including **E. F. Schlafly**], 2015, ApJ, 804, 10.
23. *A New Faint Milky Way Satellite Discovered in the Pan-STARRS1 3pi Survey*. B. P. M. Laevens et al. [23 coauthors including **E. F. Schlafly**], 2015, ApJ, 802, 18.
24. *The Identification of Z-dropouts in Pan-STARRS1: Three Quasars at $6.5 < z < 6.7$* . B. P. Venemans et al. [32 coauthors including **E. F. Schlafly**], 2015, ApJ, 801, 11.
25. *Systematic Uncertainties Associated with the Cosmological Analysis of the First Pan-STARRS1 Type Ia Supernova Sample*. D. Scolnic et al. [48 coauthors including **E. F. Schlafly**], 2014, ApJ, 795, 45.
26. *Cosmological Constraints from Measurements of Type Ia Supernovae Discovered during the First 1.5 yr of the Pan-STARRS1 Survey*. A. Rest et al. [48 coauthors including **E. F. Schlafly**], 2014, ApJ, 795, 44.
27. *A New Distant Milky Way Globular Cluster in the Pan-STARRS1 3pi Survey*. B. P. M. Laevens et al. [22 coauthors including **E. F. Schlafly**], 2014, ApJ, 786, L3.

28. *Measuring Quasar Variability with Pan-STARRS1 and SDSS*. E. Morganson et al. [13 coauthors including **E. F. Schlafly**], 2014, ApJ, 784, 92.
29. *Towards a complete stellar mass function of the Hyades. I. Pan-STARRS1 optical observations of the low-mass stellar content*. B. Goldman et al. [17 coauthors including **E. F. Schlafly**], 2013, A&A, 559, 43.
30. *Clustering of Sloan Digital Sky Survey III Photometric Luminous Galaxies: The Measurement, Systematics, and Cosmological Implications*. S. Ho et al. [39 coauthors including **E. F. Schlafly**], 2012, ApJ, 761, 14.
31. *The Milky Way Tomography with Sloan Digital Sky Survey. IV. Dissecting Dust*. M. Berry et al. [30 coauthors including **E. F. Schlafly**], 2012, ApJ, 757, 166.
32. *Ameliorating systematic uncertainties in the angular clustering of galaxies: a study using the SDSS-III*. A. J. Ross, et al. [31 coauthors including **E. F. Schlafly**], 2011, MNRAS, 417, 1350.
33. *CGRaBS: An All-Sky Survey of Blazar Candidates*. S. E. Healey et al. [10 coauthors including **E. F. Schlafly**], 2008, ApJS, 175, 97.