

**Joshua S. Speagle**  
Harvard-Smithsonian Center for Astrophysics  
60 Garden Street, Cambridge, MA 02138  
jspeagle[at]cfa.harvard.edu

---

## POSITIONS

<b>National Science Foundation Graduate Research Fellow:</b> Harvard University	2016- <b>Present</b>
<b>Project Academic Support Staff:</b> Kavli IPMU (WPI), UTIAS, The University of Tokyo	2015-2016

## EDUCATION

<b>Harvard University Department of Astronomy:</b> M.A./Ph.D. Program	2016- <b>Present</b>
<b>Harvard College:</b> B.A., <i>cum laude</i> in Astrophysics and Physics	2011-2015

## AWARDS & HONORS

<b>National Science Foundation Graduate Research Fellowship</b>	2016
<b>Herchel Smith-Harvard Undergraduate Science Fellowship:</b> Harvard College	2014
<b>Harvard College Research Program Research Fellowship:</b> Harvard College	Feb. 2014
	Oct. 2012
	Apr. 2012
	Feb. 2012
<b>Weismann International Internship Program Fellowship:</b> Harvard College	2013
<b>Chambliss Astronomy Achievement Student Award:</b> American Astronomical Society	*Jan. 2013
	Jan. 2011
<b>REU in Astronomy and Astrophysics:</b> Cornell University	2012

## SELECTED PUBLICATIONS

11. **Speagle, J. S.**; Leauthaud A. et al., in preparation: “Validating Spectroscopic Contributions to Photometric Redshift Accuracy using HSC Survey Galaxy-Galaxy Lensing Data”
10. **Speagle, J. S.**; Leauthaud A. et al., in preparation: “Using Hierarchical Bayes and Machine Learning to Derive Photometric Redshifts from Observed Colors”
9. **Speagle, J. S.** & Eisenstein, D. J., submitted to **MNRAS**: “Deriving Photometric Redshifts with Fuzzy Archetypes and Self-Organizing Maps II. Implementation” [[arxiv:1510.08080](#)]
8. **Speagle, J. S.** & Eisenstein, D. J., accepted to **MNRAS**: “Deriving Photometric Redshifts with Fuzzy Archetypes and Self-Organizing Maps I. Methodology” [[arxiv:1510.08073](#)]
7. **Speagle, J. S.** et al., accepted to **MNRAS**: “Exploring Photometric Redshifts as an Optimization Problem: An Ensemble MCMC and Simulated Annealing-Driven Template-fitting Approach” [[arxiv:1508.02484](#)]
6. Steinhardt, C. L.; Capak, P. L.; Masters, D. C.; & **Speagle, J. S.**, **ApJ**: “The Impossibly Early Galaxy Problem” [[arxiv:1506.01377](#)]
5. Masters, D. C. et al., **ApJ**: “Mapping the Galaxy Color-Redshift Relation: Optimal Photometric Redshift Calibration Strategies for Cosmology Surveys” [[arxiv:1509.03318](#)]
4. Steinhardt, C. L. & **Speagle, J. S.**, **ApJ**: “A Uniform History for Galaxy Evolution” [[arxiv:1409.2883](#)]

\* Honorable mention

3. Steinhardt, C. L.; **Speagle, J. S.** et al., **ApJL**: “Star Formation at  $4 < z < 6$  from the Spitzer Large Area Survey with Hyper-Suprime-Cam (SPLASH)” [[arxiv:1407.7030](#)] [**Press Release: JPL**] [**40 citations**]
2. **Speagle, J. S.**; Steinhardt, C. L. et al., **ApJS**: “A Highly Consistent Framework for the Evolution of the Star-Forming ‘Main Sequence’ from  $z \sim 0-6$ ” [[arxiv:1405.2041](#)] [**150 citations**]
1. **Speagle, J. S.**; Kaplan, D. L.; & van Kerkwijk, M. H., **ApJ**: “The X-ray Counterpart of the High-*B* Pulsar J0726-2612” [[arxiv:1111.2877](#)]

## SELECTED TALKS AND POSTERS

13. **COSMO21**, Talk, May 2016: “Improving Photometric Redshifts for Hyper Suprime-Cam”
12. **Euclid Collaboration Photo-z Working Group Meeting**, Talk, May 2016: “Deriving Photo-*z*’s with Fuzzy Archetypes”
11. **Kavli IPMU**, Lunch Seminar, Mar. 2016: “Mapping, Visualizing, and Exploiting the Color-Redshift Relation”
10. **Harvard**, Senior Thesis Talk, Apr. 2015: “Mapping the Universe (at low resolution) with Photometric Redshifts”
9. **National Collegiate Research Conference**, Poster, Jan. 2015: “Mapping the Universe”
8. **AAS 225**, Talk, Jan. 2015: “Improving Photometric Redshift Accuracy and Computational Efficiency”
7. **COSMOS Collaboration Meeting**, Talk, May 2014: “A Highly Consistent Framework for the Evolution of the Star-Forming Main Sequence”
6. **AAS 223**, Poster, Jan. 2014: “Parallel Galaxy Main Sequence and Quasar Evolution from  $z=0-6$ ”
5. **Harvard**, Junior Thesis Talk, Dec. 2013: “‘Main Sequence’ Evolution from  $z \sim 0-6$ ”
4. **Tsukuba U.**, Invited Talk, Aug. 2013: “The Evolution of Star-Forming Galaxies Over Cosmic Time”
3. **Kavli IPMU**, Lunch Seminar, Jul. 2013: “Gyrochronology and the Angular Momentum Evolution of Solar-like Stars”
2. **AAS 221**, Poster, Jan. 2013: “An In-Depth Analysis of the *Kepler* Low-Amplitude Blazhko RR Lyrae Stars”
1. **AAS 219**, Poster, Jan. 2012: “The X-ray Counterpart of the High-*B* Pulsar J0726-2612”