

Louis Evan Abramson

UCLA | *Physics & Astronomy*

Education and Employment

- Present **Postdoctoral Scholar**, *UCLA*, Los Angeles, California.
Supervisor: Tommaso Treu
- 2015 **PhD, Astrophysics**, *The University of Chicago*, Chicago, Illinois.
Advisor: Michael Gladders
- 2009 **AB, Physics, magna cum laude**, *Columbia University*, New York, New York.

Awards

- 2016 Chancellor's Award for Postdoctoral Research, *UCLA*.
- 2014 James W. Cronin Fellowship, *UChicago*, inaugural awardee.
- 2014 William Rainey Harper Dissertation Prize, *UChicago*.
- 2011–14 Carnegie–Brinson Fellowship, *UChicago/Carnegie Observatories*.
- 2010 Physical Science Division Teaching Prize, *UChicago*.
- 2009 McCormick Graduate Fellowship, *UChicago*.
- 2009 *Phi Beta Kappa*, *Columbia University*.

Publications

-First author (6)
- 2017 *How Strong is the Evidence for Compactification-Triggered Quenching?*, with Takahiro Morishita, arXiv:1608.07577; *ApJ* in review.
<http://adsabs.harvard.edu/abs/2016arXiv160807577A>
- 2016 *Return to [Log-]Normalcy: Rethinking Quenching, the Star Formation Main Sequence, and Perhaps Much More*, with Michael D. Gladders, Alan Dressler, Augustus Oemler, Jr., Bianca M. Poggianti, and Benedetta Vulcani, *ApJ*, 832, 7.
<http://adsabs.harvard.edu/abs/2016ApJ...832....7A>
- 2015 *Matching the Evolution of the Stellar Mass Function Using Log-normal Star Formation Histories*, with Michael D. Gladders, Alan Dressler, Augustus Oemler, Jr., Bianca M. Poggianti, and Benedetta Vulcani, *ApJL*, 801, L12.
<http://adsabs.harvard.edu/abs/2015ApJ...801L..12A>
- 2014 *The Circular Velocity Function of Group Galaxies*, with Rik J. Williams, Andrew J. Benson, Juna A. Kollmeier, and John S. Mulchaey, *ApJ*, 793, 49.
<http://adsabs.harvard.edu/abs/2014ApJ...793...49A>
- 2014 *The Mass-Independence of Specific Star Formation Rates in Galactic Disks*, with D.D. Kelson, A. Dressler, B.M. Poggianti, M.D. Gladders, A. Oemler, Jr., and B. Vulcani, *ApJL*, 785, L36.
<http://adsabs.harvard.edu/abs/2014ApJ...785L..36A>

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- 2013 *The IMACS Cluster Building Survey. V. Further Evidence for Starburst Recycling from Quantitative Galaxy Morphologies*, with A. Dressler, M.D. Gladders, A. Oemler, Jr., B.M. Poggianti, A.J. Monson, E. Persson, and B. Vulcani, *ApJ*, 777, 124.
<http://adsabs.harvard.edu/abs/2013ApJ...777..124A>
- Critical contributor (11)
- 2017 *Spectroscopic confirmation of an ultra-faint galaxy at the epoch of reionization*, A. Hoag, M. Bradač, M. Trenti, T. Treu, K.B. Schmidt, K.H. Huang, B.C. Lemaux, J. He, S.R. Bernard, L.E. Abramson, C.A. Mason, T. Morishita, L. Pentericci, T. Schrabback, *Nature Astronomy*, 1, 0091.
<https://www.nature.com/articles/s41550-017-0091>
- 2017 *Log-Normal Star Formation Histories in Simulated and Observed Galaxies*, Benedikt Diemer, Martin Sparre, Louis E. Abramson, Paul Torrey, *ApJ*, 839, 26.
<http://adsabs.harvard.edu/abs/2017ApJ...839...26D>
- 2017 *The Grism Lens-Amplified Survey from Space (GLASS). IX. The Dual Origin of Low-Mass Cluster Galaxies as Revealed by New Structural Analyses*, T. Morishita, L.E. Abramson, T. Treu, B. Vulcani, K.B. Schmidt, A. Dressler, B.M. Poggianti, M.A. Malkan, X. Wang, K.H. Huang, M. Trenti, M. Bradač, A. Hoag, *ApJ*, 835, 254.
<http://adsabs.harvard.edu/abs/2017ApJ...835..254M>
- 2017 *On the Progenitor of the Type IIb Supernova 2016gkg*, C.D. Kilpatrick, R.J. Foley, L.E. Abramson, Y.C. Pan, C.X. Lu, P. Williams, T. Treu, M.R. Siebert, C.D. Fassnacht, C.E. Max, *MNRAS*, 465, 4650.
<http://adsabs.harvard.edu/abs/2017MNRAS.465.4650K>
- 2016 *Demonstrating Diversity in Star Formation Histories with the CSI Survey*, A. Dressler, D.D. Kelson, L.E. Abramson, M.D. Gladders, A. Oemler, Jr., B.M. Poggianti, J.S. Mulchaey, B. Vulcani, S.A. Shectman, R.J. Williams, P.J. McCarthy, *ApJ*, 833, 251.
<http://adsabs.harvard.edu/abs/2016ApJ...833..251D>
- 2016 *The Star Formation Histories of Disk Galaxies: the Live, the Dead, and the Undead*, A. Oemler, Jr., L.E. Abramson, M.D. Gladders, A. Dressler, B.M. Poggianti, B. Vulcani, [arXiv:1611.05932](https://arxiv.org/abs/1611.05932); *ApJ* submitted.
<http://adsabs.harvard.edu/abs/2016arXiv161105932O>
- 2016 *Characterizing Intra-Cluster Light at $z \sim 0.5$ in the Hubble Frontier Fields*, Takahiro Morishita, Louis E. Abramson, Tommaso Treu, Kasper B. Schmidt, Benedetta Vulcani, Xin Wang, [arXiv:1610.08503](https://arxiv.org/abs/1610.08503); *ApJ* submitted.
<http://adsabs.harvard.edu/abs/2016arXiv161008503M>
- 2016 *On the Origin and Evolution of the Stellar Mass Function*, Daniel D. Kelson, Andrew J. Benson, Louis E. Abramson, [arXiv:1610.06566](https://arxiv.org/abs/1610.06566); *ApJ* submitted.
<http://adsabs.harvard.edu/abs/2016arXiv161006566K>
- 2016 *Progenitor Candidate for SN 2016gkg in NGC 613*, C.D. Kilpatrick, M.R. Siebert, R.J. Foley, C.E. Max, P. Williams, L.E. Abramson, C.X. Lu, T. Treu, M. Kassis, *ATel* 9536.
<http://adsabs.harvard.edu/abs/2016ATel.9536....1K>
- 2015 *The Secret Life of Galaxies*, Alan Dressler, Louis E. Abramson, *IAUS*, 311, 140.
<http://adsabs.harvard.edu/abs/2015IAUS..311..140D>

- 2013 *The IMACS Cluster Building Survey: II. Spectral Evolution of Galaxies in the Epoch of Cluster Assembly*, A. Dressler, A. Oemler, Jr., B.M. Poggianti, M.D. Gladders, L.E. Abramson, B. Vulcani, *ApJ*, 770, 62.
<http://adsabs.harvard.edu/abs/2013ApJ...770...62D>
- 2013 *SGAS 143845.1+145407: A Big, Cool Starburst at Redshift 0.816*, M.D. Gladders, J.R. Rigby, K. Sharon, E. Wuyts, L.E. Abramson, H. Dahle, E.S. Persson, A.J. Monson, D.D. Kelson, D.J. Benford, D. Murphy, M.D. Bayliss, K.D. Finkelstein, B.P. Koester, A. Bans, E.J. Baxter, J.E. Helsby, *ApJ*, 764, 177.
<http://adsabs.harvard.edu/abs/2013ApJ...764..177G>
- Co-author (10)
- 2016 *Discovery and Follow-Up Observations of the Young Type 1a Supernova 2016coj*, W.K. Zheng, A.V. Filippenko, J. Mauerhan, M.L. Graham, H. Yuk, G. Hosseinzadeh, J.M. Silverman, L. Rui, R. Arbour, R.J. Foley, B. Abolfathi, L.E. Abramson, I. Arcavi, A.J. Barth, V.N. Bennert, A.P. Brandel, M.C. Cooper, M. Cosens, S.P. Fillingham, B.J. Fulton, G. Halevi, D.A. Howell, T. Hsyu, P.L. Kelly, S. Kumar, L. Li, W. Li, M.A. Malkan, C. Manzano-King, C. McCully, P.E. Nugent, Y.C. Pan, L. Pei, B. Scott, R.O. Sexton, I. Shivvers, B. Stahl, T. Treu, S. Valenti, H.A. Vogler, J.L. Walsh, X. Wang, arXiv:1611.09438; *ApJ* accepted.
<http://adsabs.harvard.edu/abs/2016arXiv161109438Z>
- 2017 *The Grism Lens-Amplified Survey from Space (GLASS) X. Sub-kpc Resolution Gas-phase Metallicity Maps at Cosmic Noon Behind the Hubble Frontier Fields Cluster MACS1149.6+2223*, X. Wang, T.A. Jones, T. Treu, T. Morishita, L.E. Abramson, G.B. Brammer, K.H. Huang, M.A. Malkan, K.B. Schmidt, A. Fontana, C. Grillo, A.L. Henry, W. Karman, P.L. Kelly, C.A. Mason, A. Mercurio, P. Rosati, K. Sharon, M. Trenti, B. Vulcani, *ApJ*, 837, 89.
<http://adsabs.harvard.edu/abs/2017ApJ...837...89W>
- 2017 *The Grism Lens-Amplified Survey from Space (GLASS). VIII. The Influence of the Cluster Properties on H α Emitter Galaxies at $0.3 < z < 0.7$* , B. Vulcani, T. Treu, C. Nipoti, K.B. Schmidt, A. Dressler, T. Morshita, B.M. Poggianti, M.A. Malkan, A. Hoag, M. Bradač, L.E. Abramson, M. Trenti, L. Pentericci, A. von der Linden, G. Morris, X. Wang, *ApJ*, 837, 126.
<http://adsabs.harvard.edu/abs/2017ApJ...837..126V>
- 2016 *The Grism Lens-Amplified Survey from Space (GLASS). VII. The Diversity of the Distribution of Star Formation in Cluster and Field Galaxies at $0.3 < z < 0.7$* , B. Vulcani, T. Treu, K.B. Schmidt, T. Morishita, A. Dressler, B.M. Poggianti, L.E. Abramson, M. Bradač, G.B. Brammer, A. Hoag, M. A. Malkan, L. Pentericci, M. Trenti, *ApJ*, 833, 2.
<http://adsabs.harvard.edu/abs/2016ApJ...833...2V>
- 2015 *The Grism Lens-Amplified Survey from Space (GLASS). V. Extent and Spatial Distribution of Star Formation in $z \sim 0.5$ Cluster Galaxies*, B. Vulcani, T. Treu, K.B. Schmidt, B.M. Poggianti, A. Dressler, A. Fontana, M. Bradač, G.B. Brammer, A. Hoag, K.H. Huang, M.A. Malkan, L. Pentericci, M. Trenti, A. von der Linden, L.E. Abramson, J. He, G. Morris, *ApJ*, 814, 161.
<http://adsabs.harvard.edu/abs/2015ApJ...814..161V>

- 2013 *The IMACS Cluster Building Survey: III. The Star Formation Histories of Field Galaxies*, A. Oemler, Jr., A. Dressler, M.D. Gladders, J. Fritz, B.M. Poggianti, B. Vulcani, L.E. Abramson, *ApJ*, 770, 63.
<http://adsabs.harvard.edu/abs/2013ApJ...770...63O>
- 2013 *The IMACS Cluster Building Survey: IV. The Log-normal Star Formation History of Galaxies*, M.D. Gladders, A. Oemler, Jr., A. Dressler, B.M. Poggianti, B. Vulcani, L.E. Abramson, *ApJ*, 770, 64.
<http://adsabs.harvard.edu/abs/2013ApJ...770...64G>
- 2013 *The galaxy stellar mass function and its evolution with time show no dependence on global environment*, B. Vulcani, B.M. Poggianti, A. Oemler, Jr., A. Dressler, A. Aragón-Salamanca, G. De Lucia, A. Moretti, M.D. Gladders, L.E. Abramson, C. Halliday, *A&A*, 550A, 58.
<http://adsabs.harvard.edu/abs/2013A%26A...550A..58V>
- 2013 *SDSSJ2222+2745: A Gravitationally Lensed Sextuple Quasar with Maximum Image Separation of 15.1" Discovered in the Sloan Giant Arcs Survey*, H. Dahle, M.D. Gladders, K. Sharon, M.B. Bayliss, E. Wuyts, L.E. Abramson, B.P. Koester, N. Groeneboom, T.E. Brinckmann, M.T. Kristensen, M.O. Lindholmer, A.B. Nielsen, J.K. Krogager, J.P.U. Fynbo, *ApJ*, 773, 146.
<http://adsabs.harvard.edu/abs/2013ApJ...773..146D>
- 2012 *Weak-Lensing Mass Measurements of Five Galaxy Clusters in the South Pole Telescope Survey Using Magellan/Megacam*, F.W. High, H. Hoekstra, N. Leethochawalit, T. de Haan, L.E. Abramson, K.A. Aird, R. Armstrong, M.L.N. Ashby, M. Bautz, M. Bayliss, G. Bazin, B.A. Benson, L.E. Bleem, M. Brodwin, J.E. Carlstrom, C.L. Chang, H.M. Cho, A. Clocchiatti, M. Conroy, T.M. Crawford, A.T. Crites, S. Desai, M.A. Dobbs, J.P. Dudley, R.J. Foley, W.R. Forman, E.M. George, M.D. Gladders, A.H. Gonzalez, N.W. Halverson, N.L. Harrington, G.P. Holder, W.L. Holzzapfel, S. Hoover, J.D. Hrubes, C. Jones, M. Joy, R. Keisler, L. Knox, A.T. Lee, E.M. Leitch, J. Liu, M. Lueker, D. Luong-Van, A. Mantz, D.P. Marrone, M. McDonald, J.J. McMahan, J. Mehl, S.S. Meyer, L. Mocanu, J.J. Mohr, T.E. Montroy, S.S. Murray, T. Natoli, D. Nurgaliev, S. Padin, T. Plagge, C. Pryke, C.L. Reichardt, A. Rest, J. Ruel, J.E. Ruhl, B.R. Saliwanchik, A. Saro, J.T. Sayre, K.K. Schaffer, L. Shaw, T. Schrabback, E. Shirokoff, J. Song, H. Spieler, B. Stalder, Z. Staniszewski, A.A. Stark, K. Story, C.W. Stubbs, R. Šuhada, S. Tokarz, A. van Engelen, K. Vanderlinde, J.D. Vieira, A. Vikhlinin, R. Williamson, O. Zahn, A. Zenteno, *ApJ*, 758, 68.
<http://adsabs.harvard.edu/abs/2012ApJ...758..68H>

Refereeing

The Astrophysical Journal.

Monthly Notices of the Royal Astronomical Society.

Talks

Slides at <http://leabramson.wordpress.com/publications-talks> or upon request

2017 Galaxies Are People Too!, *Astronomy on Tap*, Pasadena, 13 February.

2016 Problems, Parameters, and Parables in Galaxy Evolution: What do we mean when we talk about quenching?, *INAF Padova* – invited seminar, Padua, 21 October.

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- 2016 Galaxies, A Biography: The Surprisingly Human Lives of Some Definitively Alien Objects, *Riverside Astronomical Society* – public talk, Riverside, 17 September.
- 2016 To Quench or Not To Quench? How What We Say Affects What We Think about Galaxy Evolution, *GalPath2016* – invited talk, Catalina Island, 1 August.
- 2016 Probing Paradigms of Galaxy Evolution with WFIRST: How One Telescope Could Provide a Last Look on the Story of Star Formation, *WFIRST2016*, Pasadena, 1 March.
- 2015 Star Stuff: What's In Space and How We Found Out About It, *Explore Your Universe* – public talk, UCLA, 8 November.
- 2015 Understanding Diversity in Galaxy Growth, UC Davis, 12 February.
- 2015 Assessing Diversity in Galaxy Star Formation Histories: From Constraining to Understanding Galaxy Growth, *AAS225* – dissertation talk, Seattle, 7 January.
- 2014 How Large Scale Structure Speaks to Star Formation: Future Insights on *Nurture* from WFIRST-AFTA, *WFIRS2014*, IPAC/Pasadena, 17 November.
- 2014 Star Formation Histories from Statistical Metrics: What Ensemble Observations Have and Haven't Taught Us about Galaxy Growth, UArizona, 29 September.
- 2014 Insights from the ICBS: What Cluster Surveys Can Teach Us about Star Formation, *The Life and Times of Galaxies: A Celebration of Alan Dressler's Career*, Zion National Park, 10 September.
- 2014 Galaxy Evolution from Statistical Perspectives: Promises and Challenges, Carnegie Observatories, 7 March.
- 2012 PHENOMenology: Stepping Through the Scientific Method, *National Science Teachers Association National Convention*, Indianapolis, 30 March.

Research Supervision

- 2015–17 Takahiro Morishita, PhD student, UCLA.
- 2014 Ethan Jahn, summer REU student, UChicago.

Teaching and Outreach

- 2010–11 Head Instructor, *KICP Space Explorers*, UChicago.
College preparatory program for south-side Chicago high school students. Designed/taught/ran weekly science courses and bi-yearly science camps. Remained an assistant instructor through 2015.
- 2010–11 Instructor, *NASA CAPSTONE* program, UChicago.
Helped develop a high school astronomy curriculum for use by Chicago Public Schools.
- 2010 Teaching Assistant, Nat. Sci. 102: Evolution of the Universe, UChicago.
Lab-based survey course in cosmology for undergraduate non-majors.
- 2010 Teaching Assistant, Phys. Sci. 120: Origin of the Universe and How We Know, UChicago.
Lab-based course for undergraduate non-majors.
- 2009 Teaching Assistant, Phys. Sci. 119: Stellar Astronomy and Astrophysics, UChicago.
Lab-based course for undergraduate non-majors.

Academic Committees/Appointments

- 2016– Diversity Committee, *UCLA Dept. of Physics & Astronomy*.

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2016– Postdoc Representative, *UCLA Dept. of Physics & Astronomy*.

2015 Graduate Admissions Committee, *UChicago Dept. of Astronomy & Astrophysics*.

Professional Memberships

2014–15 American Astronomical Society.

Non-academic

Hobbies Running, brewing

Languages Spanish (conversational), American Sign Language (beginner)