Joel Leja

Assistant Professor, Astronomy and Astrophysics
The Pennsylvania State University
515 Davey Lab
University Park, PA, 16802

1 530 410 3077
joel.leja@psu.edu
http://www.personal.psu.edu/jql6565/

RESEARCH INTERESTS

galaxy formation and evolution, stellar population synthesis, astrostatistics

EDUCATION

Yale University — New Haven, CT

Ph.D in Astronomy — 2016

Thesis: *Tracing Galaxies Through Cosmic Time*

Advisor: Prof. Pieter van Dokkum

MS in Astronomy — 2012

University of California, Berkeley

BA in Physics and Astrophysics (honors) — 2010

PROFESSIONAL EXPERIENCE

Assistant Professor — 2020–present
The Pennsylvania State University

NSF Astronomy & Astrophysics Postdoctoral Fellow — 2017–20
CfA | Harvard & Smithsonian

Postdoctoral Fellow — 2016-17
CfA | Harvard & Smithsonian
Mentor: Professor Charlie Conroy

Graduate Student Researcher — 2010-16
Yale University
Advisor: Professor Pieter van Dokkum

Undergraduate Research — 2008-10
University of California, Berkeley
Advisor: Professor Alexei Filippenko

Solar physics REU — 2009
Smithsonian Astrophysical Observatory
Advisor: Dr. Gemma Attrill

SUCCESSFUL GRANTS

HST Archival ($133k) (**CoI**) — 2020–2023
Pirate: Walking the Plank to Spatially Resolved Stellar Populations in CANDELS

NASA/ADAP (**CoI**) — 2019–2021
3D-Herschel: Completing the CANDELS/3D-HST Legacy with a New Bayesian Framework for Deriving Galaxy Properties

Harvard Odyssey Computing Grant (1.5M CPU Hours) (**PI**) — 2017
Observational Galaxy Evolution with Odyssey

NSF Astronomy & Astrophysics Fellowship ($300k) (**PI**) — 2017–2020

Bringing Galaxy Evolution into Focus by Pushing SED Models to the Limit

HONORS AND AWARDS

Brouwer Prize, Yale University 2019
awarded to a student for a contribution of unusual merit to astronomy during their PhD thesis.

Physics & Astrophysics Commencement Speaker, UC Berkeley 2010

Departmental Citation in Astrophysics, UC Berkeley 2010
outstanding scholarship by a graduating senior in Astrophysics

Regents and Chancellors Scholar, UC Berkeley 2006
most prestigious UC Berkeley scholarship awarded to undergraduates

Robert C. Byrd Scholar 2006
federally funded merit-based scholarship for exceptional high-school seniors

MENTORING & OUTREACH

Coordinator of the Flipped Science Fair 2018–2020
Coordinated, directed, and planned events wherein professional astronomers present their research to panels of middle school judges, reaching ∼150 students per session

Guest Scientist at URJ 6 Points Sci-Tech Academy 2017
Shared my research with middle-schoolers through presentations and in-classroom, interactive Q&A sessions

I have served as the science advisor for the following students:

Elijah Mathews, Penn State graduate student, work in progress 2020–
Yijia Li, Penn State graduate student, work in progress 2020–
Imad Pasha, Yale University graduate student, published in ApJ 2019–2020
Evan Haze Nunez, Smithsonian Astrophysical Observatory REU, poster at the AAS 2018
Jonathan Cohn, graduate student at Texas A&M, published in ApJ 2017–2018
Michael Bueno, Banneker Institute undergraduate research, poster at the AAS 2017
Christopher Bradshaw, Yale undergraduate thesis 2014–2015
Ehran Hodes, high school summer student 2013–2015

HIGH PERFORMANCE COMPUTING EXPERIENCE

Extensive experience in high-performance computing ($>$ 10 million CPU hours) on the following systems:

The Roar Supercomputer, Penn State 2020–
Odyssey Cluster, Harvard 2014–2020
LSU SuperMIC, XSEDE 2015–2016
TACC Stampede, XSEDE 2015

OBSERVING EXPERIENCE

Palomar/TripleSpec (5m): 6 nights 2018
Keck/MOSFIRE (10m): 5 nights 2013
WIYN/HYDRA (4m): 2 nights 2011
Nickel/Photometry (1m): ∼20 nights 2009–2010

SELECTED SCIENCE TALKS

Lunch Talk – Penn State University (**invited**) 2020
Galaxy Crawl – University of Arizona (**invited**) 2020

Astrophysics Seminar — Purdue University (**invited**) 2019
ITC Luncheon — Harvard-Smithsonian CfA (**contributed**) 2019
GOGREEN Spectral Survey Workshop — York University (**invited**) 2019
Uncovering galaxy evolution in the ALMA and JWST era – IAU Symposium 352 (**contributed**) 2019
Lunch Talk — Leiden University (**invited**) 2019
LEGA-C Spectral Survey Workshop — Ghent University (**invited**) 2019
Coffee Talk — Royal Observatory of Edinburgh (**invited**) 2019
Battlestar Galactica talk series — Harvard-Smithsonian CfA (**invited**) 2019
NSF AAPF Symposium — 233rd AAS Meeting (**invited**) 2019
Challenges in Panchromatic Galaxy Modeling – IAU Symposium 314 (**contributed**) 2018
The Art of Measuring Physical Parameters in Galaxies – CANDELS Collaboration (**invited**) 2018
Quasar Tea – Harvard-Smithsonian CfA (**invited**) 2018
NSF AAPF Symposium — 231st AAS Meeting (**invited**) 2018
Astronomy Seminar — University of Connecticut (**invited**) 2017
Plumbing Star Formation Rates in the Age of JWST — Texas A&M (**invited**) 2017
Advances in Galaxy Evolution — Ringberg Castle (**invited**) 2017
Astronomy Seminar — Tufts University (**invited**) 2017
Lunch Talk — Carnegie Observatories (**contributed**) 2016
FLASH Talk — UC Santa Cruz (**contributed**) 2016
Astronomy Seminar — UC Riverside (**contributed**) 2016
Astrophysics Seminar — UC Irvine (**contributed**) 2016
Astronomy Tea Talk — Caltech (**contributed**) 2016
Astrophysics Brown Bag Lunch — MIT Kavli Institute (**contributed**) 2016
Galaxies and Cosmology seminar — Harvard-Smithsonian CfA (**invited**) 2016
Linking Observations & Theory with New-Generation Spectral Models — IAP Paris (**contributed**) 2016
3D-HST Physics, Evolution, Census Conference — Yale (**invited**) 2015
A Fitting Conference — Harvard (**invited**) 2015
Santa Cruz Galaxy Workshop — UCSC (**contributed**) 2014
Early Galaxy Formation in LCDM Cosmology — Jerusalem Winter School (**contributed talk**) 2013
"The Intriguing Lives of Massive Galaxies" — IAU Beijing (**poster**) 2012

TEACHING EXPERIENCE

Assistant Professor, Penn State University 2020–
ASTR 589: Seminar in Current Astronomical Research
Teaching Fellow, Yale University 2010–2016
ASTR 110: Planets and Stars (Professor Faison)
ASTR 160: Frontiers and Controversies in Astrophysics (Professor Geha)
ASTR 160: Frontiers and Controversies in Astrophysics (Professor Fischer)
ASTR 160: Frontiers and Controversies in Astrophysics (Professor Edwards)
ASTR 210: Stars and Their Evolution (Professor Basu)
Residential College Mathematics & Science Tutor, Yale University 2011
Drop-in physics tutoring for Yale undergraduates (∼5 hours / week)
Graduate Student Instructor, UC Berkeley 2010
ASTRO W12: The Planets (Professors Geoff Marcy, Burkhard Militzer)
Physics Tutor and Student Lecturer (UC Berkeley) 2008–2010
Weekly lectures on topics in introductory physics, drop-in tutoring (∼6 hours/week)
Course coordinator; trained other physics tutors

PROFESSIONAL EXPERIENCE

Referee for *The Astrophysical Journal, The Astrophysical Journal Letters, Monthly Notices of the Royal Astronomical Society, Astronomy & Astrophysics, Astronomy & Computing*	
FINESST (Future Investigators in NASA Earth and Space Science and Technology) reviewer	2019
Reviewer for Polish Science Center	2020
Referee for HST Mid-Cycle Proposals	2018, 2019
Webmaster for the NSF AAPF	2018–
Galaxy Lunch Board at Yale	2015–2016
Panel Member for Yale Telescope Time Allocation Committee	2014 A&B

PRESS

Yale GSAS Profile, "Tracing the History of the Universe"	2014
STScI Press Release, "Hubble Reveals First Scrapbook Pictures of Milky Way's Formative Years"	2013
Yale Press Release, "Watching the Milky Way Grow Up"	2013

PUBLICATIONS

I am an author of 55 refereed publications and 2 submitted for publication, of which 9 are first author works. As of January 2020, I have 4,453 citations and an h-index of 27.

First Author

1. *A New Census of the* $0.2 < z < 3.0$ *Universe, Part I: The Stellar Mass Function*
   Leja, Joel; Speagle, Joshua S.; Johnson, Benjamin D.; Conroy, Charlie; van Dokkum, Pieter; Franx, Marijn, submitted to ApJ October 2019, arXiv:1910.04168

2. *Beyond UVJ: More Efficient Selection of Quiescent Galaxies with Ultraviolet/Mid-infrared Fluxes*
   Leja, Joel; Tacchella, Sandro; Charlie, Conroy, 2019, ApJ, 880L, 9L

3. *An Older, More Quiescent Universe from Panchromatic SED Fitting of the 3D-HST Survey*
   Leja, Joel; Johnson, Benjamin D.; Conroy, Charlie; van Dokkum, Pieter; Speagle, Joshua S.; Brammer, Gabriel; Momcheva, Ivelina; Skelton, Rosalind; Whitaker, Katherine E.; Franx, Marijn; Nelson, Erica J., 2019, ApJ, 877, 140L

4. *How to measure galaxy star formation histories II: Nonparametric models*
   Leja, Joel; Carnall, Adam C.; Johnson, Benjamin D.; Conroy, Charlie; Speagle, Joshua S., 2019, ApJ, 876, 3L

5. *Hot dust in Panchromatic SED Fitting: Identification of AGN and improved galaxy properties*
   Leja, Joel; Johnson, Benjamin D.; Conroy, Charlie; van Dokkum, Pieter G., 2018, ApJ, 854, 62L

6. *Deriving Physical Properties from Broadband Photometry with Prospector: Description of the Model and a Demonstration of its Accuracy Using 129 Galaxies in the Local Universe*
   Leja, Joel; Johnson, Benjamin D.; Conroy, Charlie; van Dokkum, Pieter G.; Byler, Nell, 2017, ApJ, 837, 170L

7. *Reconciling the Observed Star-forming Sequence with the Observed Stellar Mass Function*
   Leja, Joel; van Dokkum, Pieter G.; Franx, Marijn; Whitaker, Katherine E., 2015, ApJL, 798, 115L

8. *Exploring the Chemical Link between Local Ellipticals and Their High-redshift Progenitors*
   Leja, Joel; van Dokkum, Pieter G.; Momcheva, Ivelina; Brammer, Gabriel; Skelton, Rosalind E.;

Whitaker, Katherine E.; Andrews, Brett H.; Franx, Marijn; Kriek, Mariska; van der Wel, Arjen; Bezanson, Rachel; Conroy, Charlie; Förster Schreiber, Natascha; Nelson, Erica; Patel, Shannon G., 2013, ApJL, 778L, 24L

9. *Tracing Galaxies Through Cosmic Time with Number Density Selection*
Leja, Joel; van Dokkum, Pieter G.; Franx, Marijn, 2013, ApJ, 766, 33L

Second Author

10. *Stellar Population Inference with Prospector*
Johnson, Benjamin D.; Leja, Joel; Conroy, Charlie; Speagle, Joshua S., 2020, submitted to AASJournals, arXiv:2012.01426

11. *Brackett-γ as a Gold-standard Test of Star Formation Rates Derived from SED Fitting*
Pasha, Imad; **Leja, Joel**; van Dokkum, Pieter G.; Conroy, Charlie; Johnson, Benjamin D., 2020, ApJ, 898, 165P

12. *How to measure galaxy star-formation histories I: Parametric models*
Carnall, A. C.; **Leja, J**.; Johnson, B. D.; McLure, R. J.; Dunlop, J. S.; Conroy, C., 2019, ApJ, 873, 44C

13. *ZFOURGE: Extreme 5007 Emission May Be a Common Early-lifetime Phase for Star-forming Galaxies at $z > 2.5$*
Cohn, Jonathan H.; **Leja, Joel**; Tran, Kim-Vy H.; Forrest, Ben; Johnson, Benjamin D.; Tillman, Megan; Alcorn, Leo; Conroy, Charlie; Glazebrook, Karl; Kacprzak, Glenn G.; Kelson, Daniel D.; Nanayakkara, Themiya; Papovich, Casey; van Dokkum, Pieter G.; Yuan, Tiantian, 2018, ApJ, 869, 141C

14. *The Assembly of Milky Way-like Galaxies Since z$\sim$2.5*
van Dokkum, Pieter G.; **Leja, Joel**; Nelson, Erica June; Patel, Shannon; Skelton, Rosalind E.; Momcheva, Ivelina; Brammer, Gabrial; Whitaker, Katherine E.; Lundgren, Britt; Fumagalli, Mattia; Conroy, Charlie; Förster Schreiber, Natascha; Franx, Marijn; Kriek, Mariska; Labbé, Ivo; Marchesini, Danilo; Rix, Hans-Walter; van der Wel, Arjen; Wuyts, Stijn 2013, ApJ, 771L, 35V

Co-Author

15. *REQUIEM-2D: Spatially Resolved Stellar Populations from HST 2D Grism Spectroscopy*
Akhshik, Mohammad; Whitaker, Katherine E.; Brammer, Gabriel; Mahler, Guillaume; Sharon, Keren; **Leja, Joel**; Bayliss, Matthew B.; Bezanson, Rachel; Gladders, Michael D.; Man, Allison; Nelson, Erica J.; Rigby, Jane R.; Rizzo, Francesca; Toft, Sune; Wellons, Sarah; Williams, Christina C., 2020, accepted for publication in ApJ, arXiv:2008.02276

16. *Revealing the relation between black hole growth and host-galaxy compactness among star-forming galaxies*
Ni, Q.; Brandt, W. N.; Yang, G.; **Leja, J.**; Chen, C. -T. J.; Luo, B.; Matharu, J.; Sun, M.; Vito, F.; Xue, Y. Q.; Zhang, K., 2021, MNRAS, 500, 4989N

17. *Recent Star Formation in a Massive Slowly Quenched Lensed Quiescent Galaxy at z = 1.88*
Akhshik, Mohammad; Whitaker, Katherine E.; **Leja, Joel**; Mahler, Guillaume; Sharon, Keren; Brammer, Gabriel; Toft, Sune; Bezanson, Rachel; Man, Allison; Nelson, Erica J.; Pacifici, Camilla; Wellons, Sarah; Williams, Christina C., 2021, ApJL, 907L, 8A

18. *The GOGREEN survey: post-infall environmental quenching fails to predict the observed age difference between quiescent field and cluster galaxies at $z > 1$*
Webb, Kristi; Balogh, Michael L.; **Leja, Joel**; van der Burg, Remco F. J.; Rudnick, Gregory; Muzzin,

Adam; Boak, Kevin; Cerulo, Pierluigi; Gilbank, David; Lidman, Chris; Old, Lyndsay J.; Pintos-Castro, Irene; McGee, Sean; Shipley, Heath; Biviano, Andrea; Chan, Jeffrey C. C.; Cooper, Michael; De Lucia, Gabriella; Demarco, Ricardo; Forrest, Ben Jablonka, Pascale; Kukstas, Egidijus; McCarthy, Ian G.; McNab, Karen; Nantais, Julie; Noble, Allison; Poggianti, Bianca; Reeves, Andrew M. M.; Vulcani, Benedetta; Wilson, Gillian; Yee, Howard K. C.; Zaritsky, Dennis, 2020, MNRAS, 498, 5317W

19. *The Distant, Galaxy Cluster Environment of the Short GRB 161104A at z∼0.8 and a Comparison to the Short GRB Host Population*
Nugent, A. E.; Fong, W.; Dong, Y.; Palmese, A.; **Leja, J.**; Escorial, A. Rouco; Blanchard, P. K.; Paterson, K.; Chornock, R.; Monson, A.; Nicholl, M.; Berger, E., 2020, ApJ, 904, 52N

20. *How Well Can We Measure the Stellar Mass of a Galaxy: The Impact of the Assumed Star Formation History Model in SED Fitting*
Lower, Sidney; Narayanan, Desika; **Leja, Joel**; Johnson, Benjamin D.; Conroy, Charlie; Dave, Romeel, 2020, ApJ, 904, 33L

21. *REQUIEM-2D Methodology: Spatially Resolved Stellar Populations of Massive Lensed Quiescent Galaxies from Hubble Space Telescope 2D Grism Spectroscopy*
Akhshik, Mohammad; Whitaker, Katherine E.; Brammer, Gabriel; Mahler, Guillaume; Sharon, Keren; **Leja, Joel**; Bayliss, Matthew B.; Bezanson, Rachel; Gladders, Michael D.; Man, Allison; Nelson, Erica J.; Rigby, Jane R.; Rizzo, Francesca; Toft, Sune; Wellons, Sarah; Williams, Christina C., 2020, ApJ, 900, 184A

22. *Discovery of the Optical Afterglow and Host Galaxy of Short GRB 181123B at z = 1.754: Implications for Delay Time Distributions*
Paterson, K.; Fong, W.; Nugent, A.; Escorial, A. Rouco; **Leja, J.**; Laskar, T.; Chornock, R.; Miller, A. A.; ScharwŁchter, J.; Cenko, S. B.; Perley, D.; Tanvir, N. R.; Levan, A.; Cucchiara, A.; Cobb, B. E.; De, K.; Berger, E.; Terreran, G.; Alexander, K. D.; Nicholl, M. Blanchard, P. K.; Cornish, D., 2020, ApJ, 898L, 32P

23. *SPECULATOR: Emulating Stellar Population Synthesis for Fast and Accurate Galaxy Spectra and Photometry*
Alsing, Justin; Peiris, Hiranya; **Leja, Joel**; Hahn, ChangHoon; Tojeiro, Rita; Mortlock, Daniel; Leistedt, Boris; Johnson, Benjamin D.; Conroy, Charlie, 2020, ApJS, 249, 5A

24. *Predicting fully self-consistent satellite richness, galaxy growth and star formation rates from the STastical sEmi-Empirical modeL STEEL*
Grylls, Philip J.; Shankar, F.; **Leja, J.**; Menci, N.; Moster, B.; Behroozi, P.; Zanisi, L., MNRAS, 491, 634G

25. *Lick Observatory Supernova Search Follow-Up Program: Photometry Data Release of 93 Type Ia Supernovae*
Stahl, Benjamin E. et al., including **Joel Leja**, 2019, MNRAS, 2352S

26. *Discovery of a dark, massive, ALMA-only galaxy at z 5-6 in a tiny 3-millimeter survey*
Williams, Christina C.; Labbe, Ivo; Spilker, Justin; Stefanon, Mauro; **Leja, Joel**; Whitaker, Katherine; Bezanson, Rachel; Narayanan, Desika; Oesch, Pascal; Weiner, Benjamin, 2019, ApJ, 884, 154W

27. *The Hubble Legacy Field GOODS-S Photometric Catalog*
Whitaker, Katherine E.; Ashas, Mohammad; Illingworth, Garth; Magee, Daniel; **Leja, Joel**; Oesch, Pascal; van Dokkum, Pieter; Mowla, Lamiya; Bouwens, Rychard; Franx, Marijn; Holden, Bradford; LabbŐ, Ivo; Rafelski, Marc; Teplitz, Harry; Gonzalez, Valentino, 2019, ApJS, 244, 16W

28. *Model-independent constraints on the hydrogen-ionizing emissivity at $z > 6$*
Mason, Charlotte A.; Naidu, Rohan P.; Tacchella, Sandro; **Leja, Joel**, 2019, MNRAS, 489, 2669M

29. *Measuring the Delay Time Distribution of Binary Neutron Stars. III. Using the Individual Star Formation Histories of Gravitational-wave Event Host Galaxies in the Local Universe*
Safarzadeh, Mohammadtaher; Berger, Edo; **Leja, Joel**; Speagle, Joshua S., 2019, ApJ, 878L, 14S

30. *The tidal disruption event AT2017eqx: spectroscopic evolution from hydrogen rich to poor suggests an atmosphere and outflow*
Nicholl, M.; Blanchard, P. K.; Berger, E.; Gomez, S.; Margutti, R.; Alexander, K. D.; Guillochon, J.; **Leja, J.**; Chornock, R.; Snios, B.; Auchettl, K.; Bruce, A. G.; Challis, P.; D'Orazio, D. J.; Drout, M. R.; Eftekhari, T.; Foley, R. J.; Graur, O.; Kilpatrick, C. D.; Lawrence, A. Piro, A. L.; Rojas-Bravo, C.; Ross, N. P.; Short, P.; Smartt, S. J.; Smith, K. W.; Stalder, B., 2019, MNRAS, 488, 1878N

31. *SN 2016iet: The Pulsational or Pair Instability Explosion of a Low-metallicity Massive CO Core Embedded in a Dense Hydrogen-poor Circumstellar Medium*
Gomez, Sebastian; Berger, Edo; Nicholl, Matt; Blanchard, Peter K.; Villar, V. Ashley; Patton, Locke; Chornock, Ryan; **Leja, Joel**; Hosseinzadeh, Griffin; Cowperthwaite, Philip S., 2019, ApJ, 881, 87G

32. *Millimeter Mapping at $z \sim 1$: Dust-obscured Bulge Building and Disk Growth*
Nelson, Erica J.; Tadaki, Ken-ichi; Tacconi, Linda J.; Lutz, Dieter; FŽrster Schreiber, Natascha M.; Cibinel, Anna; Wuyts, Stijn; Lang, Philipp; **Leja, Joel**; Montes, Mireia; Oesch, Pascal A.; Belli, Sirio; Davies, Rebecca L.; Davies, Richard I.; Genzel, Reinhard; Lippa, Magdalena; Price, Sedona H.; Ębler, Hannah; Wisnioski, Emily, 2019, ApJ, 870, 130N

33. *COSMOS-DASH: The Evolution of the Galaxy Size-Mass Relation Since $z \sim 3$ from new Wide Field WFC3 Imaging Combined with CANDELS/3DHST*
Mowla, Lamiya; van Dokkum, Pieter; Brammer, Gabriel; Momcheva, Ivelina; van der Wel, Arjen; Whitaker, Katherine; Nelson, Erica; Bezanson, Rachel; Muzzin, Adam; Franx, Marijn; MacKenty, John; **Leja, Joel**; Kriek, Mariska; Marchesini, Danilo, 2019, ApJ, 880, 57M

34. *The Electromagnetic Counterpart of the Binary Neutron Star Merger LIGO/Virgo GW170817. VII. Properties of the Host Galaxy and Constraints on the Merger Timescale*
Blanchard, P. K.; Berger, E.; Fong, W.; Nicholl, M.; **Leja, J.**; Conroy, C.; Alexander, K. D.; Margutti, R.; Williams, P. K. G.; Doctor, Z.; Chornock, R.; Villar, V. A.; Cowperthwaite, P. S.; Annis, J.; Brout, D.; Brown, D. A.; Chen, H. -Y.; Eftekhari, T.; Frieman, J. A.; Holz, D. E. Metzger, B. D.; Rest, A.; Sako, M.; Soares-Santos, M., ApJL, 2017, 848L, 22B

35. *The Superluminous Supernova SN 2017egm in the Nearby Galaxy NGC 3191: A Metal-rich Environment Can Support a Typical SLSN Evolution*
Nicholl, Matt; Berger, Edo; Margutti, Raffaella; Blanchard, Peter K.; Guillochon, James; **Leja, Joel**; Chornock, Ryan, ApJ, 2017, 845L, 8N

36. *PS16dtm: A Tidal Disruption Event in a Narrow-line Seyfert 1 Galaxy*
Blanchard, P. K.; Nicholl, M.; Berger, E.; Guillochon, J.; Margutti, R.; Chornock, R.; Alexander, K. D.; **Leja, J.**; Drout, M. R., ApJ, 2017, 843, 106B

37. *A New Method for Wide-Field Near-IR Imaging with the Hubble Space Telescope*
Momcheva, Ivelina G.; van Dokkum, Pieter G.; van der Wel, Arjen; Brammer, Gabriel B.; Mackenty, John; Nelson, Erica J.; **Leja, Joel**; Muzzin, Adam; Franx, Marijn, PASP, 2017, Volume 129, Issue 971

38. *The Relation Between [OIII]/Hβ and Specific Star Formation Rate in Galaxies at $z \sim 2$*
Dickey, Claire Mackay; van Dokkum, Pieter; Oesch, Pascal; Whitaker, Katherine; Momcheva, Ivelina; Nelson, Erica; Leja, Joel; Brammer, Gabriel; Franx, Marijn; Skelton, Rosalind, ApJ, 828L, 11M

39. *Where Stars Form: Inside-out Growth and Coherent Star Formation from HST Hα Maps of 3200 Galaxies across the Main Sequence at 0.7< z <1.5*
Nelson, Erica June; van Dokkum, Pieter G.; Förster Schreiber, Natascha M.; Franx, Marijn; Brammer, Gabriel B.; Momcheva, Ivelina G.; Wuyts, Stijn; Whitaker, Katherine E.; Skelton, Rosalind E.; Fumagalli, Mattia; Hayward, Christopher C.; Kriek, Mariska; Labbé, Ivo; **Leja, Joel**; Rix, Hans-Walter; Tacconi, Linda J.; van der Wel, Arjen; van den Bosch, Frank C.; Oesch, Pascal A.; Dickey, Claire Ulf Lange, Johannes, ApJ, 828, 27N

40. *The 3D-HST Survey: Hubble Space Telescope WFC3/G141 Grism Spectra, Redshifts, and Emission Line Measurements for ∼100,000 Galaxies*
Momcheva, Ivelina G.; Brammer, Gabriel B.; van Dokkum, Pieter G.; Skelton, Rosalind E.; Whitaker, Katherine E.; Nelson, Erica J.; Fumagalli, Mattia; Maseda, Michael V.; **Leja, Joel**; Franx, Marijn; Rix, Hans-Walter; Bezanson, Rachel; Da Cunha, Elisabete; Dickey, Claire; Förster Schreiber, Natascha M.; Illingworth, Garth; Kriek, Mariska; Labbé, Ivo; Ulf Lange, Johannes; Lundgren, Britt F. Magee, Daniel; Marchesini, Danilo; Oesch, Pascal; Pacifici, Camilla; Patel, Shannon G.; Price, Sedona; Tal, Tomer; Wake, David A.; van der Wel, Arjen; Wuyts, Stijn, ApJS, 225, 27M

41. *Leveraging 3D-HST Grism Redshifts to Quantify Photometric Redshift Performance*
Bezanson, Rachel; Wake, David A.; Brammer, Gabriel B.; van Dokkum, Pieter G.; Franx, Marijn; Labbé, Ivo; **Leja, Joel**; Momcheva, Ivelina G.; Nelson, Erica J.; Quadri, Ryan F.; Skelton, Rosalind E.; Weiner, Benjamin J.; Whitaker, Katherine E., ApJ, 822, 30B

42. *Evidence for Non-stellar Rest-frame Near-IR Emission Associated with Increased Star Formation in Galaxies at z∼1*
Lange, Johannes U.; van Dokkum, Pieter G.; Momcheva, Ivelina G.; Nelson, Erica J.; **Leja, Joel**; Brammer, Gabriel; Whitaker, Katherine E.; Franx, Marijn, ApJ, 819, 4L

43. *Forming Compact Massive Galaxies*
van Dokkum, Pieter G.; Nelson, Erica June; Franx, Marijn; Oesch, Pascal; Momcheva, Ivelina; Brammer, Gabriel; Förster Schreiber, Natascha M.; Skelton, Rosalind E.; Whitaker, Katherine E.; van der Wel, Arjen; Bezanson, Rachel; Fumagalli, Mattia; Illingworth, Garth D.; Kriek, Mariska; **Leja, Joel**; Wuyts, Stijn, ApJ, 813, 23V

44. *Galaxy Structure as a Driver of the Star Formation Sequence Slope and Scatter*
Whitaker, Katherine E.; Franx, Marijn; Bezanson, Rachel; Brammer, Gabriel B.; van Dokkum, Pieter G.; Kriek, Mariska T.; Labbé, Ivo; **Leja, Joel**; Momcheva, Ivelina G.; Nelson, Erica J.; Rigby, Jane R.; Rix, Hans-Walter; Skelton, Rosalind E.; van der Wel, Arjen; Wuyts, Stijn, ApJ, 811L, 12W

45. *On the importance of using appropriate spectral models to derive physical properties of galaxies at* $0.7 < z < 2.8$
Pacifici, Camilla; da Cunha, Elisabete; Charlot, StŐphane; Rix, Hans-Walter; Fumagalli, Mattia; Wel, Arjen van der; Franx, Marijn; Maseda, Michael V.; van Dokkum, Pieter G.; Brammer, Gabriel B.; Momcheva, Ivelina; Skelton, Rosalind E.; Whitaker, Katherine; **Leja, Joel**; Lundgren, Britt; Kassin, Susan A.; Yi, Sukyoung K., MNRAS, 447, 786P

46. *Constraining the Low-mass Slope of the Star Formation Sequence at* $0.5 < z < 2.5$
Whitaker, Katherine E.; Franx, Marijn; **Leja, Joel**; van Dokkum, Pieter G.; Henry, Alaina; Skelton, Rosalind E.; Fumagalli, Mattia; Momcheva, Ivelina G.; Brammer, Gabriel B.; Labbé, Ivo; Nelson, Erica J.; Rigby, Jane R., ApJ, 795, 104W

47. *3D-HST WFC3-selected Photometric Catalogs in the Five CANDELS/3D-HST Fields: Photometry, Photometric Redshifts, and Stellar Masses*

Skelton, Rosalind E.; Whitaker, Katherine E.; Momcheva, Ivelina G.; Brammer, Gabriel B.; van Dokkum, Pieter G.; Labbé, Ivo; Franx, Marijn; van der Wel, Arjen; Bezanson, Rachel; Da Cunha, Elisabete; Fumagalli, Mattia; Förster Schreiber, Natascha; Kriek, Mariska; **Leja, Joel**; Lundgren, Britt F.; Magee, Daniel; Marchesini, Danilo; Maseda, Michael V.; Nelson, Erica J.; Oesch, Pascal Pacifici, Camilla; Patel, Shannon G.; Price, Sedona; Rix, Hans-Walter; Tal, Tomer; Wake, David A.; Wuyts, Stijn, ApJS, 214, 24S

48. *A massive galaxy in its core formation phase three billion years after the Big Bang*
Nelson, Erica; van Dokkum, Pieter; Franx, Marijn; Brammer, Gabriel; Momcheva, Ivelina; Schreiber, Natascha Förster; da Cunha, Elisabete; Tacconi, Linda; Bezanson, Rachel; Kirkpatrick, Allison; **Leja, Joel**; Rix, Hans-Walter; Skelton, Rosalind; van der Wel, Arjen; Whitaker, Katherine; Wuyts, Stijn, Nature, 513, 394N

49. *Dense Cores in Galaxies Out to z = 2.5 in SDSS, UltraVISTA, and the Five 3D-HST/CANDELS Fields*
van Dokkum, Pieter G.; Bezanson, Rachel; van der Wel, Arjen; Nelson, Erica June; Momcheva, Ivelina; Skelton, Rosalind E.; Whitaker, Katherine E.; Brammer, Gabriel; Conroy, Charlie; Förster Schreiber, Natascha M.; Fumagalli, Mattia; Kriek, Mariska; Labbé, Ivo; **Leja, Joel**; Marchesini, Danilo; Muzzin, Adam; Oesch, Pascal; Wuyts, Stijn, ApJ, 791, 45V

50. *Observations of Environmental Quenching in Groups in the 11 Gyr since z = 2.5: Different Quenching for Central and Satellite Galaxies*
Tal, Tomer; Dekel, Avishai; Oesch, Pascal; Muzzin, Adam; Brammer, Gabriel B.; van Dokkum, Pieter G.; Franx, Marijn; Illingworth, Garth D.; **Leja, Joel**; Magee, Daniel; Marchesini, Danilo; Momcheva, Ivelina; Nelson, Erica J.; Patel, Shannon G.; Quadri, Ryan F.; Rix, Hans-Walter; Skelton, Rosalind E.; Wake, David A.; Whitaker, Katherine E., ApJ, 789, 164T

51. *3D-HST+CANDELS: The Evolution of the Galaxy Size-Mass Distribution since z = 3*
van der Wel, A.; Franx, M.; van Dokkum, P. G.; Skelton, R. E.; Momcheva, I. G.; Whitaker, K. E.; Brammer, G. B.; Bell, E. F.; Rix, H. -W.; Wuyts, S.; Ferguson, H. C.; Holden, B. P.; Barro, G.; Koekemoer, A. M.; Chang, Yu-Yen; McGrath, E. J.; Haussler, B.; Dekel, A.; Behroozi, P.; Fumagalli, M.; **Leja, J.**; Lundgren, B. F.; Maseda, M. V.; Nelson, E. J.; Wake, D. A.; Patel, S. G.; LabbŐ, I.; Faber, S. M.; Grogin, N. A.; Kocevski, D. D., ApJ, 788, 28V

52. *Tight Correlations between Massive Galaxy Structural Properties and Dynamics: The Mass Fundamental Plane was in Place by z∼2*
Bezanson, Rachel; van Dokkum, Pieter G.; van de Sande, Jesse; Franx, Marijn; **Leja, Joel**; Kriek, Mariska, ApJ, 779L, 21B

53. *The Structural Evolution of Milky Way-like Star Forming Galaxies since z∼1.3*
Patel, Shannon G.; Fumagalli, Mattia; Franx, Marijn; van Dokkum, Pieter G.; van der Wel, Arjen; **Leja, Joel**; Labbé, Ivo; Brammer, Gabriel; Skelton, Rosalind E.; Momcheva, Ivelina; Whitaker, Katherine E.; Lundgren, Britt; Muzzin, Adam; Quadri, Ryan F.; Nelson, Erica June; Wake, David A.; Rix, Hans-Walter 2013, ApJ, 778L, 24L

54. *Galaxy environments over cosmic time: the non-evolving radial galaxy distributions around massive galaxies since z=1.6*
Tal, Tomer; van Dokkum, Pieter G.; Franx, Marijn; **Leja, Joel**; Wake, David A.; Whitaker, Katherine E. 2013, ApJ, 769, 31T

55. *The Radial Distribution of Star Formation in Galaxies at z∼1 from the 3D-HST Survey*
Nelson, E.J.; van Dokkum, P. G.; Momcheva, I.; Brammer, G.; Lundgren, B.; Skelton, R. E.; Whitaker,

K. E.; Da Cunha, E.; Förster Schreiber, N.; Franx, M.; Fumagalli, M.; Kriek, M.; Labbé, I.; **Leja, Joel**; Patel, S.; Rix, H.-W.; Schmidt, K. B.; van der Wel, A.; Wuyts, S., 2013, ApJ, 763L, 16N

56. *3D-HST: A Wide-field Grism Spectroscopic Survey with the Hubble Space Telescope*
Brammer, G. B., van Dokkum, P. G., Franx, M., Fumagalli, M., Patel, S., Rix, H.-W., Skelton, R. E., Kriek, M., Nelson, E., Schmidt, K. B., Bezanson, R., da Cunha, E., Erb, D. K., Fan, X., Förster Schreiber, N., Illingworth, G. D., Labbé, I., **Leja, Joel**, Lundgren, B., Magee, D., Marchesini, D., McCarthy, P., Momcheva, I., Muzzin, A., Quadri, R., Steidel, C. C., Tal, T., Wake, D. A., Whitaker, K. E., Williams, A. 2012, ApJS, 200, 13

57. *Results of the Lick Observatory Supernova Search Follow-up Photometry Program: BVRI Light Curves of 165 Type Ia Supernovae*
Ganeshalingam, M.; Li, W.; Filippenko, A. V.; Anderson, C.; Foster, G.; Gates, E. L.; Griffith, C. V.; Grigsby, B. J.; Joubert, N.; **Leja, Joel**; Lowe, T. B.; Macomber, B.; Pritchard, T.; Thrasher, P.; Winslow, D., 2010, ApJS, 190, 418G