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 populations, statistics and data-intensive methods

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 POSITIONS

Assistant Professor of Astronomy & Astrophysics — 2020–present
The Pennsylvania State University
Co-hire of the Institute for Computational & Data Sciences

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

FUNDED GRANTS

Penn State Institute for Computational & Data Sciences Seed Grant ($29k) (**PI**) — 2022–2023
A Computational Moonshot for Modern Galaxy Surveys

JWST GO Cycle 1 ($221k received, $800k total) (**CoI**) — 2022–2025
UNCOVER: Ultra-deep NIRCam and NIRSpec Observations Before the Epoch of Reionization

JWST GO Cycle 1 ($95k received, $509k total) (**CoI**) — 2022–2025
The Stellar and Gas Content of Galaxies at Cosmic Noon

JWST Archival ($239k received, $256k total) (**PI**) — 2022–2025
Preventing the Slit-Loss Catastrophe Using Flexible, Spatially Resolved Galaxy Models

HST Archival ($133k received, $370k total) (**CoI**) — 2020–2023
Pirate: Walking the Plank to Spatially Resolved Stellar Populations in CANDELS

Harvard Supercomputing 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

NASA / Webb Community Subject Matter Expert 2021–
Presentations and Q&A sessions at STEM community events in central PA about JWST.

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 research advisor for the following grads & post-grads:

Kanishk Pandey, Penn State graduate student 2023–
Bingjie Wang, Penn State postdoctoral researcher 2022–
Gautam Nagaraj, Penn State graduate student 2021–2023
Will Bowman, Penn State graduate student (now postdoc at Yale) 2021–2022
Elijah Mathews, Penn State graduate student 2020–
Yijia Li, Penn State graduate student 2020–
Imad Pasha, Yale University graduate student 2019–2020
Jonathan Cohn, graduate student at Texas A&M 2017–2018

and the following undergraduate students:

Nathan Cristello, Penn State undergraduate 2023–
Junyu Zhang, Penn State undergraduate, published in ApJ 2021–
Liam Schwartz, Penn State undergraduate 2021
Leah Zuckerman, Brown undergraduate, published in ApJ 2020–2021
Yuxin Dong, Brown undergraduate, published in ApJ 2019–2021
Evan Haze Nunez, Smithsonian Astrophysical Observatory REU, poster at the AAS 2018
Michael Bueno, Banneker Institute undergraduate research, poster at the AAS 2017
Christopher Bradshaw, Yale undergraduate thesis 2014–2015

HIGH PERFORMANCE COMPUTING EXPERIENCE

Extensive experience in high-performance computing ($>$ 20 million CPU hours) in a variety of cluster environments: The Roar Supercomputer (PSU), the Odyssey Cluster (CfA), and LSU/SuperMIC + TACC Stampede (XSEDE).

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

Astronomy Colloquium – UC Davis 2023
Astronomy Colloquium – University of Washington 2023
Astronomy & Astrophysics Colloquium – UC Berkeley 2023
Astronomy Colloquium – Yale University 2023
Astronomy Colloquium – Penn State University 2022
Review talk on Galaxy Star Formation Histories – JWST Pan-SED fitting forum (invited) 2022
The LEGA-C Spectroscopic Galaxy Survey Meeting – University of Ghent 2022
Astronomy Colloquium – University of Pittsburgh 2022
Astronomy Colloquium – Tufts University 2022
Astronomy Colloquium – UMass Amherst 2022
Galread – Princeton University 2021
Astrophysics Seminar — Purdue University 2019
ITC Luncheon — Harvard-Smithsonian CfA 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 2019
LEGA-C Spectral Survey Workshop — Ghent University (invited) 2019
Challenges in Panchromatic Galaxy Modeling – IAU Symposium 314 (contributed) 2018
The Art of Measuring Physical Parameters in Galaxies – CANDELS Collaboration (invited) 2018
NSF AAPF Symposium — 231st AAS Meeting 2018
Astronomy Seminar — University of Connecticut 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 2017
Lunch Talk — Carnegie Observatories 2016
Astronomy Tea Talk — Caltech 2016
Astrophysics Brown Bag Lunch — MIT Kavli Institute 2016
Galaxies and Cosmology seminar — Harvard-Smithsonian CfA 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

TEACHING EXPERIENCE

Assistant Professor, Penn State University 2020–
- ASTR 502: Radiative Processes in Astrophysics
- ASTR 504: Extragalactic Astronomy
- ASTR 589: Seminar in Current Astronomical Research
- Astroinformatics Summer School: Bayesian Hierarchical Modeling

Teaching Fellow, Yale University 2010–2016
- ASTR 110: Planets and Stars
- ASTR 160: Frontiers and Controversies in Astrophysics (3x)
- ASTR 210: Stars and Their Evolution

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

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, Monthly Notices of the Royal Astronomical Society Letters, Astronomy & Astrophysics, Astronomy & Computing*

Committees: Graduate Program Committee (2x), Qualifying Exam Committee (3x), Admissions Committee (1x), Eberly Prize Postdoctoral Committee (1x), Institute for Computational & Data Sciences Coordinating Committee (1x), IGC fellowship selection committee (1x)

HST Large/Treasury TAC PSU Center for Astrostatistics Lunch Talk Organizer 2023

STFC Astronomy Grants Panel reviewer (UK) 2022

PFS Survey: Group Lead, Planning First-Year Galaxy Evolution Science 2022–

Science Organizing Committee for 'Statistical Challenges in Modern Astronomy VIII' 2021–2023

Member of the Institute for Gravitation & the Cosmos at PSU 2020

Reviewer for Polish National Science Centre 2020

FINESST (Future Investigators in NASA Earth and Space Science and Technology) reviewer 2019-2020

Referee for HST Mid-Cycle Proposals 2018–2019

Webmaster for the NSF AAPF 2018–2020

Galaxy Lunch Board at Yale 2015–2016

Panel Member for Yale Telescope Time Allocation Committee 2014 A&B

PRESS

Featured in NHK's 'Cosmic Front' July 2023 Documentary on *JWST* ICDS Feature Story, "Machine learning takes starring role in exploring the universe" 2023

NASA/Nature/PSU Release, "Massive early galaxies defy prior understanding of the universe" 2023

NPR, the Guardian, the Atlantic, CNN, BBC Radio, New Zealand Radio, multiple TV interviews

NASA/STScI/PSU Release, "Bright light from early universe 'opens new chapter in astronomy" 2023

NASA/STScI/PSU Release, "JWST uncovers new details in Pandora's Cluster" 2023

Keck/Northwestern/PSU Press Release, "Tracing the origins of rare, cosmic explosions" 2022

NASA/PSU Press Release, "Bright light from early universe 'opens new chapter in astronomy' " 2022

STScI/ALMA/PSU Press Release, "Early, massive galaxies running on empty" 2021

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 110 publications in total, of which 10 are first author works and 12 are still undergoing review. As of Jul 2023, these works have 8,514 citations with an h-index of 43. A curated online list is available by clicking HERE. In the list below, my name is **bolded** and authors under my direct supervision are underlined.

First Author

1. *A New Census of the* $0.2 < z < 3.0$ *Universe, Part II: The Star-Forming Sequence*

Leja, Joel et al., 2022, ApJ, 936, 165L

2. *A New Census of the* $0.2 < z < 3.0$ *Universe, Part I: The Stellar Mass Function*
Leja, Joel et al., 2020, ApJ, 893, 111L

3. *Beyond UVJ: More Efficient Selection of Quiescent Galaxies with Ultraviolet/Mid-infrared Fluxes*
Leja, Joel et al., 2019, ApJ, 880L, 9L

4. *An Older, More Quiescent Universe from Panchromatic SED Fitting of the 3D-HST Survey*
Leja, Joel et al., 2019, ApJ, 877, 140L

5. *How to measure galaxy star formation histories II: Nonparametric models*
Leja, Joel et al., 2019, ApJ, 876, 3L

6. *Hot dust in Panchromatic SED Fitting: Identification of AGN and improved galaxy properties*
Leja, Joel et al., 2018, ApJ, 854, 62L

7. *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 et al., 2017, ApJ, 837, 170L

8. *Reconciling the Observed Star-forming Sequence with the Observed Stellar Mass Function*
Leja, Joel et al., 2015, ApJL, 798, 115L

9. *Exploring the Chemical Link between Local Ellipticals and Their High-redshift Progenitors*
Leja, Joel et al., 2013, ApJL, 778L, 24L

10. *Tracing Galaxies Through Cosmic Time with Number Density Selection*
Leja, Joel et al., 2013, ApJ, 766, 33L

Second/Third Author

11. *SBI++: Flexible, Ultra-fast Likelihood-free Inference Customized for Astronomical Applications*
Wang, Bingjie; **Leja, Joel** et al., 2023, ApJL accepted, in press

12. *As Simple as Possible but No Simpler:*
Optimizing the Performance of Neural Net Emulators for Galaxy SED Fitting
Mathews, Elijah; **Leja, Joel** et al., 2023, ApJ accepted, in press

13. *Inferring More from Less: Prospector as a Photometric Redshift Engine in the Era of JWST*
Wang, Bingjie; **Leja, Joel** et al., 2023, ApJ, 944L, 58W

14. *REQUIEM-2D: A diversity of formation pathways in a sample of spatially-resolved massive quiescent galaxies at* $z{\sim}2$
Akhshik, Mohammad; Whitaker, Katherine E.; **Leja, Joel** et al., 2023, ApJ, 943, 179A

15. *Beyond UVJ: Color Selection of Galaxies in the JWST Era*
Antwi-Danso, Jacqueline; Papovich, Casey; **Leja, Joel**, 2023ApJ, 943, 166A

16. *A simple spectroscopic technique to identify rejuvenating galaxies*
Zhang, Junyu; Li, Yijia; **Leja, Joel** et al., 2022, accepted to ApJ, in press

17. *Monte Carlo Techniques for Addressing Large Errors and Missing Data in Simulation-based Inference*
Wang, Bingjie; **Leja, Joel** et al., 2022, NeurIPS, arXiv:2211.03747

18. *Flexible Models for Galaxy Star Formation Histories Both Shift and Scramble the Optical Color-M/L Relationship*
Li, Yijia; **Leja, Joel**, 2022, ApJ, 940, 88L

19. *A Bayesian Population Model for the Observed Dust Attenuation in Galaxies*
Nagaraj, Gautam; Forbes, John C.; **Leja, Joel** et al., 2022, ApJ, 932, 54N

20. *How Well Can We Measure Galaxy Dust Attenuation Curves? The Impact of the Assumed Star-dust Geometry Model in Spectral Energy Distribution Fitting*
Lower, Sidney; Narayanan, Desika; **Leja, Joel** et al., 2022, ApJ, 931, 14L

21. *Empirical Dust Attenuation Model Leads to More Realistic UVJ Diagram for TNG100 Galaxies*
Nagaraj, Gautam; Forbes, John C.; **Leja, Joel** et al., 2022, ApJ, 939, 29N

22. *Physical Properties of the Host Galaxies of Ca-rich Transients*
Dong, Yuxin; Milisavljevic, Dan; **Leja, Joel** et al., 2022, ApJ, 927, 199D

23. *Recovering the star formation histories of recently-quenched galaxies: the impact of model and prior choices*
Suess, Katherine A.; **Leja, Joel** et al., 2022, ApJ, 935, 146S

24. *Reproducing the UVJ Color Distribution of Star-forming Galaxies at* $0.5 < z < 2.5$ *with a Geometric Model of Dust Attenuation*
Zuckerman, Leah; Belli, Sirio; **Leja, Joel**; Tacchella, Sandro, 2021, ApJ, 923, 18M

25. *Stellar Population Inference with Prospector*
Johnson, Benjamin D.; **Leja, Joel** et al., 2021, ApJS, 254, 22J

26. *Chronicling the Host Galaxy Properties of the Remarkable Repeating FRB 20201124A*
Fong, Wen-fai; Dong, Yuxin; **Leja, Joel**, et al., 2021, ApJ, 919L, 23F

27. *Recent Star Formation in a Massive Slowly Quenched Lensed Quiescent Galaxy at z = 1.88*
Akhshik, Mohammad; Whitaker, Katherine E.; **Leja, Joel** et al., 2021, ApJL, 907L, 8A

28. *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** et al., 2020, MNRAS, 498, 5317W

29. *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** et al., 2020, ApJ, 904, 33L

30. *Brackett-*γ *as a Gold-standard Test of Star Formation Rates Derived from SED Fitting*
Pasha, Imad; **Leja, Joel** et al., 2020, ApJ, 898, 165P

31. *SPECULATOR: Emulating Stellar Population Synthesis for Fast and Accurate Galaxy Spectra and Photometry*
Alsing, Justin; Peiris, Hiranya; **Leja, Joel** et al., 2020, ApJS, 249, 5A

32. *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.** et al., MNRAS, 491, 634G

33. *How to measure galaxy star-formation histories I: Parametric models*
Carnall, A. C.; **Leja, J**. et al., 2019, ApJ, 873, 44C

34. *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** et al, 2019, ApJ, 878L, 14S

35. *ZFOURGE: Extreme 5007 Emission May Be a Common Early-lifetime Phase for Star-forming Galaxies at* $z > 2.5$
Cohn, Jonathan H.; **Leja, Joel** et al., 2018, ApJ, 869, 141C

36. *Constraining the Low-mass Slope of the Star Formation Sequence at* $0.5 < z < 2.5$
Whitaker, Katherine E.; Franx, Marijn; **Leja, Joel**, et al., 2014, ApJ, 795, 104W

37. *The Assembly of Milky Way-like Galaxies Since z∼2.5*
van Dokkum, Pieter G.; **Leja, Joel** et al., 2013, ApJ, 771L, 35V

Co-Author

38. *An X-ray Census of Fast Radio Burst Host Galaxies: Constraints on AGN and X-ray Counterparts*
Eftekhari, T. et al., including **Leja, Joel**, 2023, submitted to ApJ, arXiv:2307.03766

39. *A census of star formation histories of massive galaxies at* $0.6 < z < 1$ *from spectro-photometric modeling using Bagpipes and Prospector*
Kaushal, Yasha et al., including **Leja, Joel**, 2023, submitted to ApJ, arXiv:2307.03725

40. *Stellar Half-Mass Radii of* $0.5 < z < 2.3$ *Galaxies: Comparison with JWST/NIRCam Half-Light Radii*
van der Wel, Arjen et al., including **Leja, Joel**, 2023, submitted to ApJ, arXiv:2307.03264

41. *UNCOVER: Candidate Red Active Galactic Nuclei at* $3 < z < 7$ *with JWST and ALMA*
Labbe, Ivo et al., including **Leja, Joel**, 2023, submitted to ApJ, arXiv:2306.07320

42. *Sizes and mass profiles of candidate massive galaxies discovered by JWST at 7<z<9: evidence for very early formation of the central 100 pc of present-day ellipticals*
Baggen, Josephine F. W. et al., including **Leja, Joel**, 2023, submitted to ApJ, arXiv:2305.17162

43. *JWST UNCOVER: Discovery of* $z > 9$ *Galaxy Candidates Behind the Lensing Cluster Abell 2744*
Atek, Hakim et al., including **Leja, Joel**, 2023, submitted to MNRAS, arXiv:2305.01793

44. *The Demographics, Stellar Populations, and Star Formation Histories of Fast Radio Burst Host Galaxies: Implications for the Progenitors*
Gordon, Alexa C.; Fong, Wen-fai; Kilpatrick, Charles D.; Eftekhari, Tarraneh; **Leja, Joel** et al., 2023, submitted to ApJ, arXiv:2302.05465

45. *The UNCOVER Survey: A first-look HST+JWST catalog of 50,000 galaxies near Abell 2744 and beyond*
Weaver, John R. et al., including **Leja, Joel**, 2023, submitted to ApJS, arXiv:2301.02671

46. *JWST UNCOVER: A triply imaged extremely red and compact object at* $z_{phot} \approx 7.7$
Furtak, Lukas J. et al., including **Leja, Joel**, 2022, submitted to ApJ, arXiv:2212.10531

47. *UNCOVERing the extended strong lensing structures of Abell 2744 with the deepest JWST imaging*
Furtak, Lukas J. et al., including **Leja, Joel**, 2023, MNRAS, 523, 4568F

48. *The JWST UNCOVER Treasury survey: Ultradeep NIRSpec and NIRCam ObserVations before the Epoch of Reionization*
Bezanson, Rachel; Labbe, Ivo; Whitaker, Katherine E.; **Leja, Joel** et al., 2022, submitted to ApJ, arXiv:2212.04026

49. *The Art of Measuring Physical Parameters in Galaxies: A Critical Assessment of Spectral Energy Distribution Fitting Techniques*
Pacifici, Camilla et al., including **Leja, Joel**, 2023, ApJ, 944, 141P

50. *Rapid Quenching of Galaxies at Cosmic Noon*
Park, Minjung; Belli, Sirio; Conroy, Charlie; Tacchella, Sandro; **Leja, Joel** et al., 2022, submitted to ApJ, arXiv 2210.03747

51. *Molecular Gas Reservoirs in Massive Quiescent Galaxies at $z \sim 0.7$ Linked to Late Time Star Formation*
Woodrum, Charity; Williams, Christina C.; Rieke, Marcia; **Leja, Joel** et al., 2022, ApJ, 940, 39W

52. *Early JWST imaging reveals strong optical and NIR color gradients in galaxies at $z \sim 2$ driven mostly by dust*
Miller, Tim B. et al., including **Leja, Joel**, 2022, ApJ, 941L, 37M

53. *Stochastic Modeling of Star Formation Histories III. Constraints from Physically-Motivated Gaussian Processes*
Iyer, Kartheik G.; Speagle, Joshua S.; Caplar, Neven; Forbes, John C.; Gawiser, Eric; **Leja, Joel** et al., 2022, accepted to ApJ, arXiv:2208.05938

54. *Schrodinger's Galaxy Candidate: Puzzlingly Luminous at $z \approx 17$, or Dusty/Quenched at $z \approx 5$?*
Naidu, Rohan et al., including **Leja, Joel**, 2022, submitted to ApJL, arXiv:2208.02794

55. *JWST reveals a population of ultra-red, flattened disk galaxies at $2 < z < 6$ previously missed by HST*
Nelson, Erica; Suess, Katherine; Bezanson, Rachel; Price, Sedona; van Dokkum, Pieter; **Leja, Joel** et al., 2023, ApJ, 948L, 18N

56. *A population of red candidate massive galaxies 600 Myr after the Big Bang*
Labbe, Ivo; van Dokkum, Pieter; Nelson, Erica; Bezanson, Rachel; Suess, Katherine; **Leja, Joel** et al., 2023, Nature, 616, 266L

57. *Rest-frame near-infrared sizes of galaxies at cosmic noon: objects in JWST's mirror are smaller than they appeared*
Suess, Katherine A. et al., including **Leja, Joel**, 2022, ApJ, 937L, 33S

58. *Two Remarkably Luminous Galaxy Candidates at $z \approx 11 - 13$ Revealed by JWST*
Naidu, Rohan et al., including **Leja, Joel**, 2022, ApJ, 940L, 14N

59. *Hierarchical Bayesian inference of photometric redshifts with stellar population synthesis models*
Leistedt, Boris; Alsing, Justin; Peiris, Hiranya; Mortlock, Daniel; **Leja, Joel**, 2023, ApJS, 264, 23L

60. *Monochromatic globular clusters as a critical test of formation models for the dark matter deficient galaxies NGC1052-DF2 and NGC1052-DF4*
van Dokkum, Pieter et al., including **Leja, Joel**, 2022, ApJ, 940L, 9V

61. *Forward modeling of galaxy populations for cosmological redshift distribution inference*
Alsing, Justin; Peiris, Hiranya; Mortlock, Daniel; **Leja, Joel** et al., 2023, ApJS, 264, 29A

62. *Spectral Energy Distributions in Three Deep-Drilling Fields of the Vera C. Rubin Observatory Legacy Survey of Space and Time: Source Classification and Galaxy Properties*
Zou, Fan; Brandt, W. N.; Chen, Chien-Ting; **Leja, Joel** et al., 2022, ApJS, 262,15Z

63. *Star formation histories of UV-luminous galaxies at $z \simeq 6.8$: implications for stellar mass assembly at early cosmic times*
Whitler, Lily; Stark, Daniel P.; Endsley, Ryan; **Leja, Joel** et al., 2023, MNRAS, 519, 5859W

64. *Short GRB Host Galaxies II: A Legacy Sample of Redshifts, Stellar Population Properties, and Implications for their Neutron Star Merger Origins*
Nugent, Anya E. ; Fong, Wen-fai ; Dong, Yuxin ; **Leja, Joel** et al., 2022, ApJ, 940, 57N

65. *The Lick Observatory Supernova Search follow-up program: photometry data release of 70 SESNe*
Zheng, WeiKang et al., including **Leja, Joel**, 2022, MNRAS, 512, 3195Z

66. *Fast, Slow, Early, Late: Quenching Massive Galaxies at $z \sim 0.8$*
Tacchella, Sandro; Conroy, Charlie; Faber, S. M.; Johnson, Benjamin D.; **Leja, Joel** et al., 2022, ApJ, 926, 134T

67. *SQuIGGLE: Studying Quenching in Intermediate-z Galaxies – Gas, AnguLar Momentum, and Evolution*
Suess, Katherine A. et al., including **Leja, Joel**, 2022, ApJ, 926, 89S

68. *Diagnosing DASH: A Catalog of Structural Properties for the COSMOS-DASH Survey*
Cutler, Sam E. et al., including **Leja, Joel**, 2022, ApJ, 925, 34C

69. *Hubble Space Telescope Observations of GW170817: Complete Light Curves and the Properties of the Galaxy Merger of NGC 4993*
Kilpatrick, Charles D.; Fong, Wen-fai; Blanchard, Peter K.; **Leja, Joel**, et al., 2022, ApJ, 926, 49K

70. *High Molecular-gas to Dust Mass Ratios Predicted in Most Quiescent Galaxies*
Whitaker, Katherine E. et al., including **Leja, Joel**, 2021, ApJ, 922L, 30W

71. *Quenching of star formation from a lack of inflowing gas to galaxies*
Whitaker, Katherine E. et al., including **Leja, Joel**, 2021, Nature, 597, 485W

72. *Ubiquitous [OII] Emission in Quiescent Galaxies at $z \sim 0.85$*
Maseda, Michael V. et al., including **Leja, Joel**, 2021, ApJ, 923, 18M

73. *The Diverse Molecular Gas Content of Massive Galaxies Undergoing Quenching at z∼1*
Belli, Sirio et al., including **Leja, Joel**, 2021, ApJL, 909L, 11B

74. *Spatially Resolved Star Formation and Inside-out Quenching in the TNG50 Simulation and 3D-HST Observations*
Nelson, Erica J.; Tacchella, Sandro; Diemer, Benedikt; **Leja, Joel** et al., 2021, MNRAS, 508, 219N

75. *REQUIEM-2D: Spatially Resolved Stellar Populations from HST 2D Grism Spectroscopy*
Akhshik, Mohammad et al., including **Leja, Joel**, 2020, ApJ, 900, 184A

76. *Revealing the relation between black hole growth and host-galaxy compactness among star-forming galaxies*
Ni, Q.; Brandt, W. N.; Yang, G.; **Leja, J.** et al., 2021, MNRAS, 500, 4989N

77. *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.** et al. 2020, ApJ, 904, 52N

78. *REQUIEM-2D Methodology: Spatially Resolved Stellar Populations of Massive Lensed Quiescent Galaxies from Hubble Space Telescope 2D Grism Spectroscopy*
Akhshik, Mohammad et al., including **Leja, Joel**, 2020, ApJ, 900, 184A

79. *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.** et al., 2020, ApJ, 898L, 32P

80. *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

81. *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** et al., 2019, ApJ, 884, 154W

82. *The Hubble Legacy Field GOODS-S Photometric Catalog*
Whitaker, Katherine E.; Ashas, Mohammad; Illingworth, Garth; Magee, Daniel; **Leja, Joel**, et al., 2019, ApJS, 244, 16W

83. *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

84. *The tidal disruption event AT2017eqx: spectroscopic evolution from hydrogen rich to poor suggests an atmosphere and outflow*
Nicholl, M. et al., including **Leja, Joel**, 2019, MNRAS, 488, 1878N

85. *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 et al., including **Leja, Joel**, 2019, ApJ, 881, 87G

86. *Millimeter Mapping at $z \sim 1$: Dust-obscured Bulge Building and Disk Growth*
Nelson, Erica J. et al., including **Leja, Joel**, 2019, ApJ, 870, 130N

87. *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 et al., including **Leja, Joel**, 2019, ApJ, 880, 57M

88. *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.** et al., ApJL, 2017, 848L, 22B

89. *The Superluminous Supernova SN 2017egm in the Nearby Galaxy NGC 3191: A Metal-rich Environment Can Support a Typical SLSN Evolution*
Nicholl, Matt et al., including **Leja, Joel**, ApJ, 2017, 845L, 8N

90. *PS16dtm: A Tidal Disruption Event in a Narrow-line Seyfert 1 Galaxy*
Blanchard, P. K. et al., including **Leja, Joel**, ApJ, 2017, 843, 106B

91. *A New Method for Wide-Field Near-IR Imaging with the Hubble Space Telescope*
Momcheva, Ivelina G. et al., including **Leja, Joel**, PASP, 2017, Volume 129, Issue 971

92. *The Relation Between [OIII]/Hβ and Specific Star Formation Rate in Galaxies at $z \sim 2$*
Dickey, Claire Mackay et al., including **Leja, Joel**, ApJ, 828L, 11M

93. *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 et al., including **Leja, Joel**, ApJ, 828, 27N

94. *The 3D-HST Survey: Hubble Space Telescope WFC3/G141 Grism Spectra, Redshifts, and Emission Line Measurements for $\sim$100,000 Galaxies*
Momcheva, Ivelina G. et al., including **Leja, Joel**, ApJS, 225, 27M

95. *Leveraging 3D-HST Grism Redshifts to Quantify Photometric Redshift Performance*
Bezanson, Rachel et al., including **Leja, Joel**, ApJ, 822, 30B

96. *Evidence for Non-stellar Rest-frame Near-IR Emission Associated with Increased Star Formation in Galaxies at $z\sim1$*
Lange, Johannes U.; van Dokkum, Pieter G.; Momcheva, Ivelina G.; Nelson, Erica J.; **Leja, Joel** et al., ApJ, 819, 4L

97. *Forming Compact Massive Galaxies*
van Dokkum, Pieter G. et al., including **Leja, Joel**, ApJ, 813, 23V

98. *Galaxy Structure as a Driver of the Star Formation Sequence Slope and Scatter*
Whitaker, Katherine E. et al., including **Leja, Joel**, ApJ, 811L, 12W

99. *On the importance of using appropriate spectral models to derive physical properties of galaxies at* $0.7 < z < 2.8$
Pacifici, Camilla et al., including **Leja, Joel**, MNRAS, 447, 786P

100. *3D-HST WFC3-selected Photometric Catalogs in the Five CANDELS/3D-HST Fields: Photometry, Photometric Redshifts, and Stellar Masses*
Skelton, Rosalind E. et al., including **Leja, Joel**, ApJS, 214, 24S

101. *A massive galaxy in its core formation phase three billion years after the Big Bang*
Nelson, Erica et al., including **Leja, Joel**, Nature, 513, 394N

102. *Dense Cores in Galaxies Out to z = 2.5 in SDSS, UltraVISTA, and the Five 3D-HST/CANDELS Fields*
van Dokkum, Pieter G. et al., including **Leja, Joel**, ApJ, 791, 45V

103. *Observations of Environmental Quenching in Groups in the 11 Gyr since z = 2.5: Different Quenching for Central and Satellite Galaxies*
Tal, Tomer et al., including **Leja, Joel**, ApJ, 789, 164T

104. *3D-HST+CANDELS: The Evolution of the Galaxy Size-Mass Distribution since z = 3*
van der Wel, A. et al., including **Leja, Joel**, ApJ, 788, 28V

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

106. *The Structural Evolution of Milky Way-like Star Forming Galaxies since z∼1.3*
Patel, Shannon G. et al., including **Leja, Joel**, 2013, ApJ, 778L, 24L

107. *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** et al., 2013, ApJ, 769, 31T

108. *The Radial Distribution of Star Formation in Galaxies at z∼1 from the 3D-HST Survey*
Nelson, E.J. et al., including **Leja, Joel**, 2013, ApJ, 763L, 16N

109. *3D-HST: A Wide-field Grism Spectroscopic Survey with the Hubble Space Telescope*
Brammer, G. B. et al., including **Leja, Joel**, 2012, ApJS, 200, 13

110. *Results of the Lick Observatory Supernova Search Follow-up Photometry Program: BVRI Light Curves of 165 Type Ia Supernovae*
Ganeshalingam, M. et al., including **Leja, Joel**, 2010, ApJS, 190, 418G