

Sedona Price

Department of Physics and Astronomy and PITT PACC, Allen Hall 302
University of Pittsburgh
Pittsburgh, PA, USA

sedona.price@pitt.edu
<https://sedonaprice.github.io>
<http://orcid.org/0000-0002-0108-4176>

Research Interests

Galaxy formation and evolution, high redshift galaxies, galaxy structures, gas and stellar kinematics, dynamical modeling, galaxy quenching

Education

2017 **Ph.D. Astrophysics**, *University of California, Berkeley*
Dissertation: Galaxies in the Young Universe: Structures, Masses, and Composition of Star-Forming Galaxies at $z \sim 1.5 - 3$
Advisor: Mariska Kriek
2013 **M.A. Astrophysics**, *University of California, Berkeley*
2011 **B.S. Physics**, *with honors, California Institute of Technology*

Research Positions

2022-present Samuel P. Langley PITT PACC Fellow, University of Pittsburgh, PA, USA
2017-2022 Postdoctoral Scholar, Max-Planck-Institut für extraterrestrische Physik, Garching, Germany
2011-2017 Graduate Student, UC Berkeley, CA, USA
2008-2010 Summer Undergraduate Research Fellow; undergrad. researcher, Caltech, Pasadena, CA, USA

Fellowships & Awards

2022 Samuel P. Langley PITT PACC Fellowship, University of Pittsburgh
2014 Outstanding Graduate Student Instructor Award, UC Berkeley
2012 NSF Graduate Research Fellowship, UC Berkeley
2009 Margie Lauritsen Leighton Prize, Caltech

Large Surveys and Collaborations

UNCOVER, *JWST Cycle 1 Treasury program; Survey manager (PIs: I. Labbé, R. Bezanson)*
NOEMA^{3D}, *MPG-IRAM Observatory Program IRAM/NOEMA survey (PIs: R. Genzel, R. Neri, L.J. Tacconi)*
KMOS^{3D}, *VLT/KMOS GTO survey (PIs: N.M. Förster Schreiber, D. Wilman)*
MOSDEF, *MOSFIRE Deep Evolution Field Survey, Keck Large Multi-Year Project (PIs: A.E. Shapley, A.L. Coil, M. Kriek, B. Mobasher, N.A. Reddy, B. Siana)*
3D-HST, *HST Treasury grism survey (PI: P. van Dokkum)*

Approved Observing Proposals as Co-I

JWST, NIRSpec, Cycle 2, #4106, “Extremely massive galaxies in the early universe: a challenge to Lambda-CDM?”, 14 hrs (PIs: E. Nelson, I. Labbé)
JWST, NIRSpec, Cycle 2, #4196, “How to Form a Compact Massive Galaxy: Spatially Resolved Maps of Pa-beta at $z=2.3$ ”, 2.7 hrs (PI: J. Gibson)
JWST, NIRSpec/NIRCam, Cycle 2, #4265, “Unveiling the interplay between the circumgalactic and interstellar media in a complex protocluster environment at $z=4.5$ ”, 17 hrs (PI: J. González López)
ALMA, Cycle 9, 2022.1.00073.S, “A joint ALMA and JWST public Legacy Field - Abell 2744”, 37.2 hrs (PI: S. Fujimoto)
JWST, NIRCam/NIRSpec, Cycle 1 Treasury, #2561, “UNCOVER: Ultra-deep NIRCam and NIRSpec Observations Before the Epoch of Reionization”, 71 hrs (PIs: I. Labbé, R. Bezanson)
JWST, NIRSpec, Cycle 1, #2110, “Ultra-deep continuum spectroscopy of quiescent galaxies at $1.0 < z < 2.5$: chemical abundances and stellar kinematics”, 23 hrs (PIs: M. Kriek, A. Beverage)
ALMA, Cycle 8 Large Program, 2021.1.00280.L, “CRISTAL: a survey of gas, dust and stars on kiloparsec scales in star-forming galaxies at $z \sim 4-5$ ”, 138.7 hrs (PIs: M. Aravena, I. de Looze, N.M. Förster Schreiber, J. González López, R. Herrera-Camus, J. Spilker, K. Tadaki)

- IRAM/NOEMA, W20, W20EM, “Resolved [CII] Kinematics and ISM Properties of a $z > 6$ Galaxy”, 30 hrs (*PI: N.M. Förster Schreiber*)
- Keck, LRIS, F20/F19, U049/U160, “An Unprecedented Probe of the Multi-Phase Structure and Kinematics of Outflows at High Redshift”, 4 nights (*PI: A.E. Shapley*)
- ALMA, Cycle 7, 2019.1.00477.S, “ColdSINS: an ALMA cold gas census of the deepest near-IR IFU+AO sample of $z \sim 2$ star-forming galaxies”, 15 hrs (*PI: N.M. Förster Schreiber*)
- IRAM/NOEMA, S19, L19MD, “NOEMA3D: a Comprehensive Census of the Molecular Gas Distribution & Kinematics of Massive Main-Sequence Star Forming Galaxies at the Peak and Winding Down of Galaxy Formation Activity”, ~ 1300 hrs (*PIs: R. Genzel, R. Neri, L. Tacconi*)
- ALMA, Cycle 7, 2019.1.01362.S, “Testing the high- z main-sequence paradigm with ALMA: from disk instability to clumps, bulge formation and quenching”, 31.6 hrs (*PI: R. Herrera-Camus*)
- ALMA, Cycles 6 & 7, 2018.1.00543.S / 2019.1.00640.S, “Simultaneous AGN and star formation driven feedback in action on a massive, typical galaxy at $z \sim 2$ ”, 19.6 hrs (*PI: R. Herrera-Camus*)
- VLT, SINFONI, Period 102, 0102.B-0062, “Witnessing angular momentum transport and the build-up of massive bulges through kiloparsec-scale kinematics of massive $z=1$ -1.5 star-forming galaxies with SINFONI+AO”, 7 nights (*PI: N.M. Förster Schreiber*)
- VLT, SINFONI, Period 102, 0102.B-0087, “Connecting galaxies through cosmic time – the outer disk rotation curves and baryonic-to-dark matter ratios of low-velocity galaxies at $z=1$ -2”, 4 nights (*PI: H. Übler*)
- Keck, MOSFIRE/LRIS, F18/S18/F17/S17/F16, U094/U258/U147/U091/U195, “The Heavy Metal Survey: The chemical enrichment, star-formation and assembly histories of $z \sim 1.4$ -2.3 quiescent galaxies”, 10/1 nights (*PI: M. Kriek*)

Observing Experience

- European Southern Observatory, VLT, SINFONI (3 nights)
- W. M. Keck Observatory, Keck I 10 m telescope, MOSFIRE (10.5 nights), OSIRIS (3.5 nights), LRIS (0.5 night)

Presentations

Colloquia & Seminars:

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| 2023 May | Talk, Impossible Problems: Astronomy and Statistics, CMU, Pittsburgh, PA, USA |
| 2023 Feb | AstroLunch seminar, University of Pittsburgh, Pittsburgh, PA, USA |
| 2022 Oct | Colloquium, Penn State University, State College, PA, USA |
| 2022 Jun | Scientific Advisory Board talk, MPE, Garching, Germany |
| 2017 Jun | Invited Cosmology seminar, UC Davis, CA, USA |
| 2016 Nov | Tea talk, Caltech, Pasadena, CA, USA |
| 2016 Nov | Lunch seminar, Carnegie Observatories, Pasadena, CA, USA |
| 2016 Nov | Invited seminar, CfA/Harvard, Cambridge, MA, USA |
| 2016 Nov | Invited lunch talk, MIT, Cambridge, MA, USA |
| 2015 Nov | Lunch talk, UC Berkeley, CA, USA |
| 2013 Oct | Lunch talk, UC Berkeley, CA, USA |

Conferences & Workshops:

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| 2023 Mar | Talk, KICC, <i>Early results from the James Webb Space Telescope</i> , Cambridge, UK |
| 2022 Sep | Talk, KICC, <i>Epoch of Galaxy Quenching 2022</i> , Cambridge, UK |
| 2022 Jul | *Invited participant, Ringberg, <i>In Situ View of Galaxy Formation 2</i> , Ringberg, Germany |
| 2022 Jun | Talk, <i>LEGA-C Collaboration workshop</i> , Bruges, Belgium |
| 2021 Sep | Talk, University of Oxford, <i>Spatially Resolved Spectroscopy with Extremely Large Telescopes</i> , virtual |
| 2020 Mar | *Invited talk, IAU Symposium 359, <i>GALFEED</i> , Bento Gonçalves, RS, Brazil |
| 2019 Oct | *Invited participant, Lorentz Center, <i>Revolutionary Spectroscopy of Today as a Springboard to Webb</i> , Leiden, the Netherlands |
| 2019 Sep | *Invited talk, KIAA, <i>Second Forum on Gas in Galaxies</i> , Beijing, China |
| 2019 Mar | *Invited talk, Universität Heidelberg, <i>MOSAIC 2019 Science meeting</i> , Heidelberg, Germany |
| 2018 Dec | Talk, ESO Workshop, <i>KMOS@5</i> , Garching, Germany |
| 2018 Aug | Talk, Santa Cruz Galaxy Workshop, Santa Cruz, CA, USA |
| 2017 Jun | Talk, <i>Advances in Galaxy Evolution</i> , Ringberg, Germany |

2016 Sep	Talk, Keck Science Meeting, Pasadena, CA, USA
2016 Aug	Talk, Santa Cruz Galaxy Workshop, Santa Cruz, CA, USA
2016 Jul	Talk, Munich Joint Conference, <i>Discs in Galaxies</i> , Garching, Germany
2016 Apr	Poster, STScI Spring Symposium, <i>What Shapes Galaxies?</i> , Baltimore, MD, USA
2015 Aug	Talk, IAU Symposium 319, <i>Galaxies at High Redshift and Their Evolution over Cosmic Time</i> , Honolulu, HI, USA
2013 May	Talk, Lorentz Center, <i>Galaxy formation from $z=5$ to $z=0$</i> , Leiden, the Netherlands

Teaching

2023 May	AstroPGH Python Bootcamp, <i>Module instructor</i> , University of Pittsburgh
2013	Astro C10, <i>Co-head GSI, Introductory course for non-majors</i> , UC Berkeley
2012	Astro 7b, <i>GSI, Introductory course for majors</i> , UC Berkeley
2011	Astro C10, <i>GSI, Introductory course for non-majors</i> , UC Berkeley
2010, 2011	Physics 6, <i>TA, Sophomore physics major lab</i> , Caltech

Service

—	Referee, <i>The Astrophysical Journal (ApJ)</i>
2023-present	Pittsburgh AstroLunch co-organizer, University of Pittsburgh
2013-2016	Mentoring coordinator, <i>co-head of grad student mentoring program</i> , UC Berkeley
2013-2015	Mentor, <i>mentoring junior graduate student</i> , UC Berkeley
2012-2015	Graduate Student Representative, <i>Astronomy Department</i> , UC Berkeley

Student supervision & research mentoring

Morgana Iacocca	(<i>co-supervised, Pitt undergraduate/postbacc student, 2023-</i>)
Lilian Lee	(<i>research mentoring, MPE graduate student, 2021-</i>)
Amit Nestor Shachar	(<i>research mentoring, Tel Aviv University graduate student, 2019-</i>)
Meng Luo	(<i>co-supervised, UC Berkeley undergraduate student, 2014-2015</i>)

Outreach

2023 Apr	Astronomy on Tap, <i>Public Outreach talk</i> , Pittsburgh, PA, USA
2020 Jan	IR Group Science and Instrument presentation, <i>Visiting college student tour</i> , MPE
2017 Apr	Solar Activities, <i>Marin Elementary STEAM day</i> , UC Berkeley
2012-2017	Annual Cal Day, <i>Astronomy Department exposition</i> , UC Berkeley
2014-2017	Mentoring Group, <i>Society of Women in Physical Sciences</i> , UC Berkeley
2016 May	Solar Viewing, <i>Ecology Center Festival</i> , UC Berkeley
2011-2015	Annual Bay Area Science Festival, <i>Science@Cal</i> , UC Berkeley
2013-2015	Annual Astronomy Demo Day, <i>Meher School 5th grade class</i> , UC Berkeley
2012-2014	Mentor, <i>Berkeley Compass Project</i> , UC Berkeley
2012 Mar	Expanding Your Horizons workshop, <i>for middle school girls</i> , UC Berkeley

[†]Denotes student-led paper

First and Second Author Publications

10. [†]Nestor Shachar, A., **Price, S. H.**, Förster Schreiber, N. M., et al., “*RC100: Rotation Curves of 100 Massive Star-forming Galaxies at $z = 0.6-2.5$ Reveal Little Dark Matter on Galactic Scales*,” 2023, [ApJ 944 78](#)
9. **Price, S. H.**, Übler, H., Förster Schreiber, N. M., et al., “*Kinematics and mass distributions for non-spherical deprojected Sérsic density profiles and applications to multi-component galactic systems*,” 2022, [A&A 665 A159](#)
8. **Price, S. H.**, Shimizu, T. T., Genzel, R., et al., “*Rotation Curves in $z\sim 1-2$ Star-forming Disks: Comparison of Dark Matter Fractions and Disk Properties for Different Fitting Methods*,” 2021, [ApJ 922 143](#)
7. Genzel, R., **Price, S. H.**, Übler, H., et al., “*Rotation Curves in $z\sim 1-2$ Star-forming Disks: Evidence for Cored Dark Matter Distributions*,” 2020, [ApJ 902 98](#)
6. **Price, S. H.**, Kriek, M., Barro, G., et al., “*The MOSDEF Survey: Kinematic and Structural Evolution of Star-forming Galaxies at $1.4 \leq z \leq 3.8$* ,” 2020, [ApJ 894 91](#)

5. Kriek, M., **Price, S. H.**, Conroy, C., et al., “*Stellar Metallicities and Elemental Abundance Ratios of $z \sim 1.4$ Massive Quiescent Galaxies*,” 2019, [ApJL 880 L31](#)
4. **Price, S. H.**, Kriek, M., Feldmann, R., et al., “*Testing the Recovery of Intrinsic Galaxy Sizes and Masses of $z \sim 2$ Massive Galaxies Using Cosmological Simulations*,” 2017, [ApJL 844 L6](#)
3. **Price, S. H.**, Kriek, M., Shapley, A. E., et al., “*The MOSDEF Survey: Dynamical and Baryonic Masses and Kinematic Structures of Star-Forming Galaxies at $1.4 \leq z \leq 2.6$* ,” 2016, [ApJ 819 80](#)
2. **Price, S. H.**, Kriek, M., Brammer, G. B., et al., “*Direct Measurements of Dust Attenuation in $z \sim 1.5$ Star-Forming Galaxies from 3D-HST: Implications for Dust Geometry and Star Formation Rates*,” 2014, [ApJ 788 86](#)
1. Bergé, J., **Price, S.**, Amara, A., & Rhodes, J., “*On point spread function modelling: towards optimal interpolation*,” 2012, [MNRAS 419 2356](#)

Contributing Author Publications

77. Nelson, E. J., Suess, K. A., Bezanson, R., et al., including **SHP**, “*JWST Reveals a Population of Ultrared, Flattened Galaxies at $2 < z < 6$ Previously Missed by HST*,” 2023, [ApJL 948 L18](#)
76. Genzel, R., Jolly, J.-B., Liu, D., et al., including **SHP**, “*Evidence for Large Scale, Rapid Gas Inflows in $z \sim 2$ Star Forming Disks*,” 2023, [arXiv:2305.02959](#)
75. Atek, H., Chemerynska, I., Wang, B., et al., including **SHP**, “*JWST UNCOVER: Discovery of $z > 9$ Galaxy Candidates Behind the Lensing Cluster Abell 2744*,” 2023, [arXiv:2305.01793](#)
74. Lorenz, B., Kriek, M., Shapley, A. E., et al., including **SHP**, “*An Updated Dust-to-Star Geometry: Dust Attenuation Does Not Depend on Inclination in $1.3 \leq z \leq 2.6$ Star-Forming Galaxies from MOSDEF*,” 2023, [arXiv:2304.08521](#)
73. Wang, B., Leja, J., Bezanson, R., et al., including **SHP**, “*Inferring More from Less: Prospector as a Photometric Redshift Engine in the Era of JWST*,” 2023, [ApJL 944 L58](#)
72. Weaver, J. R., Cutler, S. E., Pan, R., et al., including **SHP**, “*The UNCOVER Survey: A first-look HST+JWST catalog of 50,000 galaxies near Abell 2744 and beyond*,” 2023, [arXiv:2301.02671](#)
71. Liu, D., Förster Schreiber, N. M., Genzel, R., et al., including **SHP**, “*An 600 pc View of the Strongly Lensed, Massive Main-sequence Galaxy J0901: A Baryon-dominated, Thick Turbulent Rotating Disk with a Clumpy Cold Gas Ring at $z = 2.259$* ,” 2023, [ApJ 942 98](#)
70. Sanders, R. L., Shapley, A. E., Jones, T., et al., including **SHP**, “*CO Emission, Molecular Gas, and Metallicity in Main-sequence Star-forming Galaxies at $z \sim 2.3$* ,” 2023, [ApJ 942 24](#)
69. Fetherolf, T., Reddy, N. A., Shapley, A. E., et al., including **SHP**, “*The MOSDEF survey: probing resolved stellar populations at $z \sim 2$ Using a new bayesian-defined morphology metric called patchiness*,” 2023, [MNRAS 518 4214-4237](#)
68. Furtak, L. J., Zitrin, A., Plat, A., et al., including **SHP**, “*JWST UNCOVER: A triply imaged extremely red and compact object at $z_{\text{phot}} \simeq 7.7$* ,” 2022, [arXiv:2212.10531](#)
67. Furtak, L. J., Zitrin, A., Weaver, J. R., et al., including **SHP**, “*UNCOVERing the extended strong lensing structures of Abell 2744 with the deepest JWST imaging*,” 2022, [arXiv:2212.04381](#)
66. Bezanson, R., Labbe, I., Whitaker, K. E., et al., including **SHP**, “*The JWST UNCOVER Treasury survey: Ultradeep NIRSpect and NIRCarn Observations before the Epoch of Reionization*,” 2022, [arXiv:2212.04026](#)
65. Runco, J. N., Shapley, A. E., Kriek, M., et al., including **SHP**, “*The MOSDEF survey: a new view of a remarkable $z = 1.89$ merger*,” 2022, [MNRAS 517 4405-4416](#)
64. Runco, J. N., Shapley, A. E., Sanders, R. L., et al., including **SHP**, “*The MOSDEF survey: towards a complete census of the $z \sim 2.3$ star-forming galaxy population*,” 2022, [MNRAS 517 4337-4354](#)
63. Naidu, R. P., Oesch, P. A., van Dokkum, P., et al., including **SHP**, “*Two Remarkably Luminous Galaxy Candidates at $z \approx 10-12$ Revealed by JWST*,” 2022, [ApJL 940 L14](#)
62. Übler, H., Förster Schreiber, N. M., van der Wel, A., et al., including **SHP**, “*Galaxy kinematics and mass estimates at $z \sim 1$ from ionised gas and stars*,” 2022, [arXiv:2210.03106](#)

61. Suess, K. A., Bezanson, R., Nelson, E. J., et al., including **SHP**, “Rest-frame Near-infrared Sizes of Galaxies at Cosmic Noon: Objects in JWST’s Mirror Are Smaller than They Appeared,” 2022, [ApJL 937 L33](#)
60. Weldon, A., Reddy, N. A., Topping, M. W., et al., including **SHP**, “The MOSDEF-LRIS survey: connection between galactic-scale outflows and the properties of $z \sim 2$ star-forming galaxies,” 2022, [MNRAS 515 841-856](#)
59. Herrera-Camus, R., Förster Schreiber, N. M., **Price, S. H.**, et al., “Kiloparsec view of a typical star-forming galaxy when the Universe was ~ 1 Gyr old. II. Regular rotating disk and evidence for baryon dominance on galactic scales,” 2022, [A&A 665 L8](#)
58. Runco, J. N., Reddy, N. A., Shapley, A. E., et al., including **SHP**, “Reconciling the results of the $z \sim 2$ MOSDEF and KBSS-MOSFIRE Surveys,” 2022, [MNRAS 513 3871](#)
57. Shapley, A. E., Sanders, R. L., Salim, S., et al., including **SHP**, “The MOSFIRE Deep Evolution Field Survey: Implications of the Lack of Evolution in the Dust Attenuation-Mass Relation to $z \sim 2$,” 2022, [ApJ 926 145](#)
56. Reddy, N. A., Topping, M. W., Shapley, A. E., et al., including **SHP**, “The Effects of Stellar Population and Gas Covering Fraction on the Emergent Ly α Emission of High-redshift Galaxies,” 2022, [ApJ 926 31](#)
55. Fetherolf, T., Reddy, N. A., Shapley, A. E., et al., including **SHP**, “The MOSDEF survey: the dependence of H α -to-UV SFR ratios on SFR and size at $z \sim 2$,” 2021, [MNRAS 508 1431-1445](#)
54. Topping, M. W., Shapley, A. E., Sanders, R. L., et al., including **SHP**, “The MOSDEF survey: the mass-metallicity relationship and the existence of the FMR at $z \sim 1.5$,” 2021, [MNRAS 506 1237](#)
53. Suess, K. A., Kriek, M., **Price, S. H.**, & Barro, G., “Dissecting the size-mass and $\Sigma 1$ -mass relations at $1.0 < z < 2.5$: Galaxy Mass Profiles and Color Gradients as a Function of Spectral Shape,” 2021, [ApJ 915 87](#)
52. Sanders, R. L., Shapley, A. E., Jones, T., et al., including **SHP**, “The MOSDEF Survey: The Evolution of the Mass-Metallicity Relation from $z = 0$ to $z \sim 3.3$,” 2021, [ApJ 914 19](#)
51. Runco, J. N., Shapley, A. E., Sanders, R. L., et al., including **SHP**, “The MOSDEF survey: a comprehensive analysis of the rest-optical emission-line properties of $z \sim 2.3$ star-forming galaxies,” 2021, [MNRAS 502 2600](#)
50. Johansson, J., Goobar, A., **Price, S. H.**, et al., “Spectroscopy of the first resolved strongly lensed Type Ia supernova iPTF16geu,” 2021, [MNRAS 502 510](#)
49. Davies, R. L., Förster Schreiber, N. M., Genzel, R., et al., including **SHP**, “The KMOS^{3D} Survey: Investigating the Origin of the Elevated Electron Densities in Star-forming Galaxies at $1 \lesssim z \lesssim 3$,” 2021, [ApJ 909 78](#)
48. Belli, S., Contursi, A., Genzel, R., et al., including **SHP**, “The Diverse Molecular Gas Content of Massive Galaxies Undergoing Quenching at $z \sim 1$,” 2021, [ApJL 909 L11](#)
47. Chartab, N., Mobasher, B., Shapley, A. E., et al., including **SHP**, “The MOSDEF Survey: Environmental Dependence of the Gas-phase Metallicity of Galaxies at $1.4 \leq z \leq 2.6$,” 2021, [ApJ 908 120](#)
46. Horstman, K., Shapley, A. E., Sanders, R. L., et al., including **SHP**, “The MOSDEF survey: differences in SFR and metallicity for morphologically selected mergers at $z \sim 2$,” 2021, [MNRAS 501 137](#)
45. Übler, H., Genel, S., Sternberg, A., et al., including **SHP**, “The kinematics and dark matter fractions of TNG50 galaxies at $z = 2$ from an observational perspective,” 2021, [MNRAS 500 4597](#)
44. Reddy, N. A., Shapley, A. E., Kriek, M., et al., including **SHP**, “The MOSDEF Survey: The First Direct Measurements of the Nebular Dust Attenuation Curve at High Redshift,” 2020, [ApJ 902 123](#)
43. Jeong, M.-S., Shapley, A. E., Sanders, R. L., et al., including **SHP**, “The MOSDEF Survey: Neon as a Probe of ISM Physical Conditions at High Redshift,” 2020, [ApJL 902 L16](#)
42. Fetherolf, T., Reddy, N. A., Shapley, A. E., et al., including **SHP**, “The MOSDEF survey: an improved Voronoi binning technique on spatially resolved stellar populations at $z \sim 2$,” 2020, [MNRAS 498 5009](#)
41. Suess, K. A., Kriek, M., **Price, S. H.**, & Barro, G., “Color Gradients along the Quiescent Galaxy Sequence: Clues to Quenching and Structural Growth,” 2020, [ApJL 899 L26](#)
40. Shivaiei, I., Reddy, N., Rieke, G., et al., including **SHP**, “The MOSDEF Survey: The Variation of the Dust Attenuation Curve with Metallicity,” 2020, [ApJ 899 117](#)
39. Davies, R. L., Förster Schreiber, N. M., Lutz, D., et al., including **SHP**, “From Nuclear to Circumgalactic: Zooming in on AGN-driven Outflows at $z \sim 2.2$ with SINFONI,” 2020, [ApJ 894 28](#)

38. Wilman, D. J., Fossati, M., Mendel, J. T., et al., including [SHP](#), “*The Regulation of Galaxy Growth along the Size-Mass Relation by Star Formation, as Traced by H α in KMOS^{3D} Galaxies at $0.7 \lesssim z \lesssim 2.7$* ,” 2020, [ApJ 892 1](#)
37. Sanders, R. L., Shapley, A. E., Reddy, N. A., et al., including [SHP](#), “*The MOSDEF Survey: Direct-Method Metallicities and ISM Conditions at $z \sim 1.5 - 3.5$* ,” 2020, [MNRAS 491 1427](#)
36. Sanders, R. L., Jones, T., Shapley, A. E., et al., including [SHP](#), “*The MOSDEF Survey: [S III] as a New Probe of Evolving Interstellar Medium Conditions*,” 2020, [ApJL 888 L11](#)
35. Wisnioski, E., Förster Schreiber, N. M., Fossati, M., et al., including [SHP](#), “*The KMOS^{3D} Survey: data release and final survey paper*,” 2019, [ApJ 886 124](#)
34. Leung, G. C. K., Coil, A. L., Aird, J., et al., including [SHP](#), “*The MOSDEF survey: a census of AGN-driven ionized outflows at $z = 1.4 - 3.8$* ,” 2019, [ApJ 886 11](#)
33. Suess, K. A., Kriek, M., [Price, S. H.](#), & Barro, G., “*Half-mass radii of quiescent and star-forming galaxies evolve slowly from $0 < z < 2.5$: implications for galaxy assembly histories*,” 2019, [ApJL 885 L22](#)
32. Shimizu, T. T., Davies, R. I., Lutz, D., et al., including [SHP](#), “*The multiphase gas structure and kinematics in the circumnuclear region of NGC 5728*,” 2019, [MNRAS 490 5860](#)
31. Fornasini, F. M., Kriek, M., Sanders, R. L., et al., including [SHP](#), “*The MOSDEF Survey: The Metallicity Dependence of X-ray Binary Populations at $z \sim 2$* ,” 2019, [ApJ 885 65](#)
30. Shapley, A. E., Sanders, R. L., Shao, P., et al., including [SHP](#), “*The MOSDEF Survey: Sulfur Emission-line Ratios Provide New Insights into Evolving Interstellar Medium Conditions at High Redshift*,” 2019, [ApJL 881 L35](#)
29. Übler, H., Genzel, R., Wisnioski, E., et al., including [SHP](#), “*The Evolution and Origin of Ionized Gas Velocity Dispersion from $z \sim 2.6$ to $z \sim 0.6$ with KMOS^{3D}*,” 2019, [ApJ 880 48](#)
28. Suess, K. A., Kriek, M., [Price, S. H.](#), & Barro, G., “*Half-mass Radii for ~ 7000 Galaxies at $1.0 \leq z \leq 2.5$: Most of the Evolution in the Mass-Size Relation Is Due to Color Gradients*,” 2019, [ApJ 877 103](#)
27. Förster Schreiber, N. M., Übler, H., Davies, R. L., et al., including [SHP](#), “*The KMOS^{3D} Survey: Demographics and Properties of Galactic Outflows at $z = 0.6 - 2.7$* ,” 2019, [ApJ 875 21](#)
26. Wilson, T. J., Shapley, A. E., Sanders, R. L., et al., including [SHP](#), “*The MOSDEF Survey: No Significant Enhancement in Star Formation or Deficit in Metallicity in Merging Galaxy Pairs at $1.5 \lesssim z \lesssim 3.5$* ,” 2019, [ApJ 874 18](#)
25. Davies, R. L., Förster Schreiber, N. M., Übler, H., et al., including [SHP](#), “*Kiloparsec Scale Properties of Star-Formation Driven Outflows at $z \sim 2.3$ in the SINS/zC-SINF AO Survey*,” 2019, [ApJ 873 122](#)
24. Freeman, W. R., Siana, B., Kriek, M., et al., including [SHP](#), “*The MOSDEF Survey: Broad Emission Lines at $z = 1.4-3.8$* ,” 2019, [ApJ 873 102](#)
23. Nelson, E. J., Tadaki, K.-I., Tacconi, L. J., et al., including [SHP](#), “*Millimeter Mapping at $z \sim 1$: Dust-obscured Bulge Building and Disk Growth*,” 2019, [ApJ 870 130](#)
22. Reddy, N. A., Shapley, A. E., Sanders, R. L., et al., including [SHP](#), “*The MOSDEF Survey: Significant Evolution in the Rest-frame Optical Emission Line Equivalent Widths of Star-forming Galaxies at $z = 1.4-3.8$* ,” 2018, [ApJ 869 92](#)
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Grants

2016	AAS International Travel Grant, Munich Joint Conference
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