David O. Jones

Address Institute for Astronomy
University of Hawai'i
640 N Aohoku Pl, Hilo, HI 96720

Phone 541-740-0816
Email dojones@hawaii.edu
Web https://djones.sites.ucsc.edu/

Research Interests

- **Measuring dark energy and the local value of the Hubble constant with Type Ia Supernovae**
- **Leading optical and near-infrared time-domain surveys**

Positions Held

2024 - Assistant Astronomer
University of Hawai'i Institute for Astronomy

2022 - 2023 Assistant Astronomer
Gemini Observatory

2020 - 2022 NHFP Einstein Fellow
University of California, Santa Cruz

2017 - 2020 Moore Fellow
University of California, Santa Cruz

Education

2011-2017 PhD in Physics & Astronomy - Johns Hopkins University
Advisor: Dr. Adam Riess
Thesis: "Measuring Dark Energy with 1,345 Supernovae"

2010-2011 M.A. in Astronomy - Boston University
Advisor: Dr. Andrew West
Thesis: "Using Stellar Spectra to Constrain the Distribution of Galactic Dust"

2006-2010 B.A. in Astronomy, B. Mus. in Brass Performance - Boston University
Magna cum laude

Grants and Fellowships

2023 Institutional PI, "A *Roman* Project Infrastructure Team to Support Cosmological Measurements with Type Ia Supernovae" — $342K funding to the University of Hawai'i ($11M total)

2022 Co-I, *HST*-GO Proposal 17128, 105 orbits — $34K funding to Gemini Observatory/NOIRLab

2020 PI, 2020 NASA ADAP, "Building A Holistic Picture of the Host Galaxy Environments of Supernovae with the NASA Archive" — $205K grant to UC Santa Cruz

2020 PI, *HST*-GO Proposal 16269, 110 orbits — $232K funding

2020-2022 NASA Einstein Fellowship — $345K grant to UC Santa Cruz

2020 Clay Fellowship, Harvard CfA/Smithsonian Astrophysical Observatory (declined)

2017-2020 Moore Foundation Fellowship — $310K grant to UC Santa Cruz

Collaboration Leadership

2019- Project Scientist, Young Supernova Experiment — $1.8 million committed funding
Time-domain survey on Pan-STARRS; nine member institutions

2019- Co-PI, DEHVILS Survey (Dark Energy, H_0, and peculiar Velocities with Infrared Light from Supernovae) — $500K committed funding
Time-domain survey on UKIRT; four member institutions

2019- Co-PI, SALT3 Team
Rebuilding the Leading Model of SN Ia Distance Measurement; five member institutions

Publication Statistics

81 Refereed Journal Articles
650+ First-Author Citations (h-index 11)
1900+ Second-Author Citations
8500+ Total Citations (h-index 38)

Summary of Funded Proposals as Co-I Since 2019

13 approved programs
251 *HST* Orbits, 3 archival, 172 snapshot targets
44 *JWST* hours

Additional Telescope Time as PI

2021 Using Gemini to build a Near-Infrared Model of Type Ia Supernovae
18.8 hours in 2021B, Band 3, Gemini North

2021 Using HST and Gemini to build a Near-Infrared Model of Type Ia Supernovae
15.4 hours in 2021A, Band 1, Gemini North

2013-2016 Obtaining Redshifts and Host Galaxy Spectra for Supernovae in Pan-STARRS
15+ nights on WIYN and APO

2014 Redshifts and Host Galaxy Spectra for the Completed Pan-STARRS Supernova Survey
3 nights, Anglo-Australian Telescope, NOAO proposal N0336

Invited Talks and Colloquia (2018-2022)

Spring 2023 Preparing for the Time-Domain Revolution with the Young Supernova Experiment
Colloquia at Washington State University, University of Washington, University of Hawai'i

Sep 2022 Searching for New Physics with Local Measurements of the Hubble Constant
Vulcano Workshop 2022 — Frontier Objects in Astrophysics and Particle Physics

Jun 2022 If the SH0ES fit: Searching for New Physics with Local Measurements of the Hubble Constant, *Gravity: current challenges in black hole physics and cosmology, YITP, Kyoto, Japan*

Apr 2022 Using the Time-Domain Revolution to Search for New Physics with Hubble Constant Measurements, *Colloquia at University of Nevada Las Vegas, University of Wyoming, NOIRLab*

Mar 2022 If the SH0ES fit: Searching for New Physics with Local Measurements of the Hubble Constant, *University of Hawaii IfA Colloquium*

Feb 2022 Using the Roman Space Telescope Supernova Survey to Unravel Cosmic Controversies
Exploring the Transient Universe with the Nancy Grace Roman Space Telescope, Virtual

Dec 2021 If the SH0ES fit: Searching for New Physics with Local Measurements of the Hubble Constant, *New Mexico State University Colloquium*

Nov 2021 Performing Next-Generation Cosmology and Transient Astrophysics Today with the Young Supernova Experiment, *NCSA seminar*

Feb 2020 H_0, Dark Energy, and Testing Gravity: Using Pan-STARRS Supernovae to Understand Cosmic Controversies in the 2020s, *NRAO Colloquium, Socorro, NM*

Aug 2019 How much do cosmological constraints from SNe Ia depend on SN physics?
Progenitors of Type Ia Supernovae, Lijiang, Yunnan Province, China

Feb 2019 The Next Decade of Supernova Cosmology and the Local Value of the Hubble Constant
Concordances and Challenges in Cosmology after Planck, Sexten Center for Astrophysics

Apr 2018 Measuring the Local Value of the Hubble Constant
American Physical Society April Meeting, Columbus, OH

Recent News Highlights

2023 UH astronomers part of $11M grant to design software for new space telescope

2021-2022 Young Supernova Experiment Press Releases

Apr 2018 How 1.7 Billion Stars Were Mapped With Dazzling 3-D Precision

Apr 2018 APS April Meeting—Cosmologists Can't Agree on the Hubble Constant

Teaching Experience

2023 Co-instructor, ASTR 350L *Stellar Astrophysics Lab*, UH Hilo, Prof. Nicole Drakos
Helping to build and run creative labs for UH Hilo students.

2021 Training on intentional, equity-minded, effective teaching and mentorship
Run by the UCSC Center for Innovations in Teaching and Learning, for the Lamat Program

2015-2017 Head Teaching Fellow, *Stars and the Universe*, Prof. Adam Riess

2012-2013 Teaching Fellow, *Stars and the Universe*, Prof. Adam Riess

Spring 2011 Teaching Fellow, *Principles of Astronomy II*, Prof. Elizabeth Blanton

Fall 2010 Teaching Fellow, *Introduction to the Solar System*, Prof. Paul Withers

Service

- **LOC co-chair, "Windows on the Universe" meeting (2023)**
- **2021, 2022, 2023 NASA FINESST reviewer**
- *HST* **Cycle 29 TAC Panelist,** *TESS* **Cycle 4 and 5 TAC Panelist**
- **Referee for ApJ, PASP, and MNRAS since 2018**

Selected Graduate Students & Post-Docs Mentored

2020 - Present Mi Dai, Johns Hopkins University Postdoc
SALT3 project; Dai, Jones et al. 2023, ApJS

2021 - Present Georgie Taylor, Australian National University graduate student
SALT3 project; Taylor, Jones et al. 2023, MNRAS

2020 - Present Erik Peterson, Duke University graduate student
DEHVILS project; peculiar velocity and growth of structure measurements from NIR SNe Ia
Peterson, Jones et al., 2023, MNRAS

2018 - Present D'Arcy Kenworthy, JHU grad and Stockholm postdoc
Re-training the SALT2 model of SN Ia standardization; Kenworthy, Jones et al., 2021, ApJ

2018 - Present Justin Roberts-Pierel, Univ. South Carolina grad and STScI postdoc
SALT3; Pierel, Jones, Dai et al., 2021, ApJ, 911, 96P; Pierel, Jones, Kenworthy et al., ApJ, 939, 11P

2018 - Present Matt Siebert, UC Santa Cruz grad
Distance biases from high-velocity SNe Ia
Siebert, Foley, Jones & Davis 2020, MNRAS; Siebert, Foley, Jones et al., 2019, MNRAS

2017 - Present Dave Coulter, UC Santa Cruz grad
Developed SQL database and web application for managing and querying transient data
Coulter, Jones, et al., 2023, PASP

Selected Undergraduate Students Mentored

2023 Christine Ye, NOIRLab Summer Intern
Do Type Ia Supernovae with Early Excesses Have Biased Hubble Residuals?

2021 - Present Payton Crawford, UCSC undergraduate
Measuring the effect of SN host galaxy environment on measurements of the Hubble constant

2020 - 2020 Hakan Solak, Cambridge University undergraduate
Distance biases from SNe Ia in bright hosts; Solak, Kessler & Jones 2020, PASP, 133, 4001S

2018 - 2020 Jesus Nunez, UC Santa Cruz undergraduate
Developing web applications for managing transient data and LIGO EM counterpart searches

2014-2016 Carolyn Ortega, Johns Hopkins University undergraduate
Classified Type Ia supernovae and characterized their host galaxies

Outreach & Inclusion

2023- **Uluākea Faculty Development Program** — workshops for University of Hawai'i faculty to learn, practice, and integrate Hawai'i cultural foundations into their curricula.

2023- **Hawai'i-based Outreach** — AstroDay, Merrie Monarch Parade with Mauna Kea Observatories, tree planting through Mauna Kea Forest Restoration Project.

2020- **NASA Hubble Fellowship Program EDI** — I co-created a NHFP Fellow–graduate student mentorship program (now AMP-UP), and I led the creation of a website to coordinate NHFP diversity efforts and create a more equitable NHFP application process.

2021 **Lamat Mentor** — I was a mentor in UCSC's Lamat program in summer 2021, which provides astrophysics research opportunities to students at California community colleges.

2019-2021 **Astronomy on Tap Santa Cruz** — I was the lead postdoc for our local Astronomy on Tap program, where astronomers give informal public talks at breweries and via YouTube Live.

2011-2017 **Baltimore-Area Outreach** — I performed physics demonstractions at Baltimore City high schools and helped build two portable planetariums.

David O. Jones Publications List

Link to ADS Publication library

h-index: 38, citations: 8500+, refereed publications: 81

Primary Publications

*YSE-PZ: A Transient Survey Management Platform that Empowers the Human-in-the-loop

Coulter, D., **Jones, D. O.**, McGill, P. et al., 2023, PASP, 135F, 4501C

*The DEHVILS Survey Overview and Initial Data Release: High-Quality Near-Infrared Type Ia Supernova Light Curves at Low Redshift

Peterson, E., **Jones, D. O.**, Scolnic, D. et al., 2023, MNRAS, 522, 2478P

Propagating Uncertainties in the SALT3 Model Training Process to Cosmological Constraints

Dai, M., **Jones, D. O.**, Kenworthy, W. D. et al., 2023, ApJS, 267, 1D

*SALT2 Versus SALT3: Updated Model Surfaces and Their Impacts on Type Ia Supernova Cosmology

Taylor, G., **Jones, D. O.**, Popovic, B. et al., 2022, MNRAS, 520, 5209T

*The Young Supernova Experiment Data Release 1 (YSE DR1): Light Curves and Photometric Classification of 1975 Supernovae

Aleo, P. D., Malanchev, K., Sharief, S., **Jones, D. O.** et al., 2023, ApJ, 266, 9A

A Spectroscopic Model of the Type Ia Supernova–Host Galaxy Mass Correlation from SALT3

Jones, D. O., Kenworthy, W. D., Dai, M. et al., 2023, ApJ, 951, 22J

*SALT3-NIR: Taking the Open-Source Type Ia Supernova Model to Longer Wavelengths for Next-Generation Cosmological Measurements

Pierel, J. D. R., **Jones, D. O.**, Kenworthy, W. D. et al., 2022, ApJ, 939, 11P

A Comprehensive Measurement of the Local Value of the Hubble Constant with 1 km/s/Mpc Uncertainty from the Hubble Space Telescope and the SH0ES Team

Riess, A. G., Yuan, W., Macri, L. M., [3 authors], **Jones, D. O.**, et al., ApJ, 934L, 7R

Cosmological Results from the RAISIN Survey: Using Type Ia Supernovae in the Near Infrared as a Novel Path to Measure the Dark Energy Equation of State

Jones, D. O., Mandel, K., Kirshner, R. P. et al., 2022, ApJ, 933, 172J

*SALT3: An Improved Type Ia Supernova Model for Measuring Cosmic Distances

Kenworthy, W. D., **Jones, D. O.**, Dai, M. et al., 2021, ApJ, 923, 265K

The Young Supernova Experiment: Survey Goals, Overview, and Operations

Jones, D. O., Foley, R. J., Narayan, G. et al., 2021, ApJ, 908, 143J

*Understanding Type Ia Supernova Distance Biases by Simulating Spectral Variations

Pierel, J. D. R., **Jones, D. O.**, Dai, M. et al., 2021, ApJ, 911, 96P

The Foundation Supernova Survey: Measuring Cosmological Parameters using Supernovae from a Single Telescope

Jones, D. O., Scolnic, D. M., Foley, R. J. et al., 2019, ApJ, 881, 19J

Should Type Ia Supernova Distances be Corrected for their Local Environments?

Jones, D. O., Riess, A. G., Scolnic, D. M. et al., 2018, ApJ, 867, 108J

The Complete Light-curve Sample of Spectroscopically Confirmed Type Ia Supernovae from Pan-STARRS1 and Cosmological Constraints from The Combined Pantheon Sample

Scolnic, D. M., **Jones, D. O.**, Rest, A. et al., 2018, ApJ, 859, 101S

Measuring the Properties of Dark Energy with Photometrically Classified Pan-STARRS Supernovae. II. Cosmological Parameters

Jones, D. O., Scolnic, D. M., Riess, A. G. et al., 2018, ApJ, 857, 51J

Measuring Dark Energy Properties with Photometrically Classified Pan-STARRS Supernovae. I. Systematic Uncertainty from Core-Collapse Supernova Contamination

Jones, D. O., Scolnic, D. M., Riess, A. G. et al., 2017, ApJ, 843, 6J

A 2.4% Determination of the Local Value of the Hubble Constant

Riess, A. G., [7 authors], **Jones, D. O.** et al., 2016, ApJ, 826, 56R

A Catalog of GALEX Ultraviolet Emission from Spectroscopically Confirmed M Dwarfs

Jones, D. O., West, A. A., 2016, ApJ, 817, 1J

Reconsidering the Effects of Local Star Formation on Type Ia Supernova Cosmology

Jones, D. O., Riess, A. G., Scolnic, D. M., 2015, ApJ, 804, 28G

Software: PythonPhot: Simple DAOPHOT-type photometry in Python

Jones, D. O., Scolnic, D. M., Rodney, S. A., 2015, Astrophysics Source Code Library

GALEX Detection of Shock Breakout in Type II-P Supernova PS1-13arp: Implications for the Progenitor Star Wind

Gezari, S., **Jones, D. O.**, Sanders, N. E. et al., 2015, ApJ, 804, 28G

The Discovery of the Most Distant Known Type Ia Supernova at Redshift 1.914

Jones, D. O., Rodney, S. A., Riess, A. G., [22 authors], 2013, ApJ, 768, 166

Using M Dwarf Spectra to Map Extinction in the Local Galaxy

Jones, D. O., West, A. A. & Foster, J. B., 2011, AJ, 142, 44

Other Publications

Keck Infrared Transient Survey I: Survey Description and Data Release 1

S. Tinyanont, R. J. Foley, K. Taggart et al., 2023, MNRAS, submitted

SN 2023ixf in Messier 101: Photo-ionization of Dense, Close-in Circumstellar Material in a Nearby Type II Supernova

Jacobson-Galán, W. V., Dessart, L., Margutti, R. et al., 2023, ApJ, 954L, 42J

SN 2022joj: A Potential Double Detonation with a Thin Helium shell

Padilla Gonzalez, E., Howell, D. A., Terreran, G. et al., 2023, ApJ, submitted

A Synthetic Roman Space Telescope High-Latitude Time-Domain Survey: supernovae in the deep field

Wang, Kevin X., Scolnic, Dan, Troxel, M. A. et al., 2023, MNRAS, 523, 3874W

SN 2023ixf in Messier 101: A Variable Red Supergiant as the Progenitor Candidate to a Type II Supernova

Kilpatrick, Charles D., Foley, Ryan J., Jacobson-Galán, Wynn V. et al., 2023, ApJ, 952L, 23K

Supernova 2020wnt: An Atypical Superluminous Supernova with a Hidden Central Engine

Tinyanont, Samaporn, Woosley, Stan E., Taggart, Kirsty et al., 2023, ApJ, 951, 34T

Leveraging SN Ia spectroscopic similarity to improve the measurement of H_0

Murakami, Yukei S., Riess, Adam G., Stahl, Benjamin E. et al., 2023, JCAP, in press

Flight of the Bumblebee: the Early Excess Flux of Type Ia Supernova 2023bee revealed by TESS, Swift and Young Supernova Experiment Observations

Wang, Qinan, Rest, Armin, Dimitriadis, Georgios et al., 2023, ApJ, submitted

The Optical Light Curve of GRB 221009A: The Afterglow and the Emerging Supernova

Fulton, M. D., Smartt, S. J., Rhodes, L. et al., 2023, ApJ, 946L, 22F

Revealing the Progenitor of SN 2021zby through Analysis of the TESS Shock-cooling Light Curve

Wang, Qinan, Armstrong, Patrick, Zenati, Yossef et al., 2023, ApJ, 943L, 15W

Probing the evolution of Type Ia supernovae with their ejecta velocities

Y.-C. Pan, Y.-S. Jheng, **Jones, D. O.** et al., 2023, ApJ, submitted

SN 2022ann: A type Icn supernova from a dwarf galaxy that reveals helium in its circumstellar environment

K. W. Davis, K. Taggart, S. Tinyanont, R. J. Foley, V. A. Villar et al., 2023, MNRAS, 523.2530D

Near-Infrared and Optical Observations of Type Ic SN 2021krf: Dust Formation and Luminous Late-time Emission

Ravi, A. P., Rho, J., Park, S., Park, S. H., Yoon, S.-C., et al., 2023, ApJ, 950, 14R

A fast rising tidal disruption event from a candidate intermediate mass black hole

C. R. Angus, V. F. Baldassare, B. Mockler, R. J. Foley, E. Ramirez-Ruiz et al., 2022, Nature Astronomy, 6, 1452A

Relative intrinsic scatter in hierarchical Type Ia supernova siblings analyses: Application to SNe 2021hpr, 1997bq & 2008fv in NGC 3147

Ward, S. M., Thorp, S., Mandel, K. S., Dhawan, S., **Jones, D. O.** et al., 2022, ApJ, in press

A Synthetic Roman Space Telescope High-Latitude Time-Domain Survey: Supernovae in the Deep Field

Wang, K. X., Scolnic, D., Troxel, M. A., [7 authors], **Jones, D. O.** et al., 2022, ApJ, submitted

Measurements of the Hubble Constant with a Two Rung Distance Ladder: Two Out of Three Ain't Bad

Kenworthy, W. D., Riess, A. G., Scolnic, D., [4 authors], **Jones, D. O.** et al., 2022, ApJ, 935, 83K

The Circumstellar Environments of Double-Peaked, Calcium-strong Supernovae 2021gno and 2021inl

Jacobson-Galán, W., Venkatraman, P., Margutti, R., [16 authors], **Jones, D. O.** et al., 2022, ApJ, 932, 58J

The Pantheon+ Analysis: Cosmological Constraints

Brout, D., Scolnic, D., Popovic, Brodie, [6 authors], **Jones, D. O.** et al., 2022, ApJ, 938, 110B

Progenitor and Close-In Circumstellar Medium of Type II Supernova 2020fqv from High-Cadence Photometry and Ultra-Rapid UV Spectroscopy

Tinyanont, S. ; Ridden-Harper, R., Foley, R., [19 authors], **Jones, D. O.** et al., 2022, MNRAS, 512, 2777T

A Carbon/Oxygen-dominated Atmosphere Days After Explosion for the "Super-Chandrasekhar" Type Ia SN 2020esm

Dimitriadis, G., Foley, R. J., Arendse, N., [4 authors], **Jones, D. O.** et al., 2022, ApJ, 927, 78D

*H-band light curves of Milky Way Cepheids via Difference Imaging

Konchady, T., Oelkers, R. J., **Jones, D. O.** et al., 2022, ApJS, 258, 24K

Final Moments I: Precursor Emission, Envelope Inflation, and Enhanced Mass loss Preceding the Luminous Type II Supernova 2020tlf

Jacobson-Galan, Wynn V., Dessart, L., **Jones, D. O.** et al., 2022, ApJ, 924, 15J

The Gravity Collective: A Search for the Electromagnetic Counterpart to the Neutron Star-Black Hole Merger GW190814

Kilpatrick, C. D., Coulter, D. A., Arcavi, I., [5 authors], **Jones, D. O.** et al., 2021, ApJ, 923, 258K

The Pantheon+ Type Ia Supernova Sample: The Full Dataset and Light-Curve Release

Scolnic, D., Brout, D., Carr, A., [3 authors], **Jones, D. O.** et al., 2021, ApJL, submitted

The Pantheon+ Analysis: Evaluating Peculiar Velocity Corrections in Cosmological Analyses with Nearby Type Ia Supernovae

Peterson, E. R., Kenworthy, W. D. ; Scolnic, D., [6 authors], **Jones, D. O.** et al., 2021, ApJ, in press

SN2018agk: A prototypical Type Ia Supernova with a smooth power-law rise in Kepler (K2)

Wang, Q., Rest, A., Zenati, Y., [40 authors], **Jones, D. O.** et al., 2021, ApJ, 923, 167W

The Early Phases of Supernova 2020pni: Shock-Ionization of the Nitrogen-Enriched Circumstellar Material

Terreran, G., Jacobson-Galan, W. V., Groh, J.H., [10 authors], **Jones, D. O.**, et al., 2021, ApJ, 926, 20T

An Early-Time Optical and Ultraviolet Excess in the type-Ic SN 2020oi

Gagliano, A., Izzo, L., Kilpatrick, C. D., [11 authors], **Jones, D. O.** et al., 2021, ApJ, 924, 55G

Testing the Consistency of Dust Laws in SN Ia Host Galaxies: A BayeSN Examination of Foundation DR1

Thorp, S., Mandel, K. S., **Jones, D. O.** et al., 2021, MNRAS, 508, 4310T

The Foundation Supernova Survey: Photospheric Velocity Correlations in Type Ia Supernovae

Dettman, K. G., Jha, S. W., Dai, M., [8 authors], **Jones, D. O.** et al., 2021, ApJ, 923, 267D

A Cool and Inflated Progenitor Candidate for the Type Ib Supernova 2019yvr at 2.6 Years Before Explosion

Kilpatrick, C. D., [4 authors], **Jones, D. O.**, 2021, MNRAS, 504, 2073K

*Probing Systematic Bias in Low-Redshift Type Ia Supernova Measurements by Cross Analyzing Surface Brightness and Hubble Residuals

Solak, H., Kessler, R. & **Jones, D. O.**, 2021, PASP, 133, 4001S

Results of the Photometric LSST Astronomical Time-series Classification Challenge (PLAsTiCC)

Hlozek, R., Ponder, K. A., Malz, A. I., [7 authors], **Jones, D. O.**, et al., 2020, ApJ, submitted

Deep optical observations contemporaneous with emission from the periodic FRB 180916.J0158+65

Kilpatrick, C. D., Burchett, J. N., **Jones, D. O.** et al., 2020, ApJL, 907, L3

Active learning with RESSPECT: Resource allocation for extragalactic astronomical transients

Kennamer, Noble, [7 authors], **Jones, D. O.** et al., 2020, IEEE Symposium Series on Computational Intelligence

SuperRAENN: A Semi-supervised Supernova Photometric Classification Pipeline Trained on Pan-STARRS1 Medium Deep Survey Supernovae

Villar, V. Ashley, [3 authors], **Jones, D. O.** et al., 2020, ApJ, 905, 94V

Photometric Classification of 2315 Pan-STARRS1 Supernovae with Superphot

Hosseinzadeh, Griffin, [3 authors], **Jones, D. O.**, 2020, ApJ, 905, 93H

Evidence for Cosmic Acceleration is Robust to Observed Correlations Between Type Ia Supernova Luminosity and Stellar Age

Rose, B. M., [5 authors], **Jones, D. O.** et al., 2019, ApJL, 896L, 4R

Ca hnk: Calcium-rich Transient SN 2016hnk from the Helium Shell Detonation of a Sub-Chandrasekhar White Dwarf

Jacobson-Galan, Wynn V., [7 authors], **Jones, D. O.** et al., 2020, ApJ, 896, 165J

*A possible distance bias for type Ia supernovae with different ejecta velocities

Siebert, M. R., Foley, R. J., **Jones, D. O.**, Davis, K. W., 2020, MNRAS, 493, 5713S

Swift UVOT Grism Observations of Nearby Type Ia Supernovae – II. Probing the Progenitor Metallicity of SNe Ia with Ultraviolet Spectra

Pan, Y. -C., Foley, R. J., **Jones, D. O.**, Filippenko, A. V., Kuin, N. P. M., 2020, MNRAS, 491, 5897P

Type Ia Supernovae are Excellent Standard Candles in the Near-Infrared

Avelino, A., Friedman, A. S., Mandel, K. S., **Jones, D. O.** et al., 2019, ApJ, 887, 106A

The Photometric LSST Astronomical Time-series Classification Challenge (PLAsTiCC): Selection of a performance metric for classification probabilities balancing diverse science goals

Malz, A., [8 authors], **Jones, D. O.** et al., 2019, ApJ, 158, 171M

Supernova Photometric Classification Pipelines Trained on Spectroscopically Classified Supernovae from the Pan-STARRS1 Medium-deep Survey

Villar, V. A., [4 authors], **Jones, D. O.**, 2019, ApJ, 884, 83V

Models and Simulations for the Photometric LSST Astronomical Time Series Classification Challenge (PLAsTiCC)

Kessler, R., Narayan, G., Avelino, A., [16 authors], **Jones, D. O.**, PASP, 131, 4501K

PS1-13cbe: the rapid transition of a Seyfert 2 to a Seyfert 1

Katebi, R., Chornock, R., Berger, E., **Jones, D. O.** et al., 2019, MNRAS, 487, 4057K

*Investigating the diversity of Type Ia supernova spectra with the open-source relational data base KAEPORA

Siebert, M. R., Foley, R. J., **Jones, D. O.** et al., 2019, MNRAS, 486, 5785S

K2 Observations of SN 2018oh Reveal a Two-Component Rising Light Curve for a Type Ia Supernova

Dimitriadis, G., [5 authors], **Jones, D. O.** et al., 2019, ApJ, 870L, 1D

Photometric and Spectroscopic Properties of Type Ia Supernova 2018oh with Early Excess Emission from the *Kepler* 2 Observations

Li, W., [35 authors], **Jones, D. O.** et al., 2019, ApJ, 870, 12L

The Foundation Supernova Survey: motivation, design, implementation, and first data release

Foley, R. J.,[12 authors], **Jones, D. O.** et al., 2018, MNRAS, 475, 193F

X-ray limits on the progenitor system of the Type Ia supernova 2017ejb

Kilpatrick, C. D., [3 authors], **Jones, D. O.** et al., 2018, MNRAS, 481, 4123

A Near-infrared Period–Luminosity Relation for Miras in NGC 4258, an Anchor for a New Distance Ladder

Huang, C. D.,[6 authors], **Jones, D. O.** et al., 2018, ApJ, 857, 67H

Hydrogen-poor Superluminous Supernovae from the Pan-STARRS1 Medium Deep Survey

Lunnan, R., Chornock, R., Berger, E., **Jones, D. O.** et al., 2018, ApJ, 852, 81L

New Parallaxes of Galactic Cepheids from Spatially Scanning the Hubble Space Telescope: Implications for the Hubble Constant

Riess, A. G., [8 authors], **Jones, D. O.** et al., 2018, ApJ, 855, 136R

Type Ia Supernova Distances at Redshift >1.5 from the Hubble Space Telescope Multi-cycle Treasury Programs: The Early Expansion Rate

Riess, A. G., [15 authors], **Jones, D. O.** et al., 2018, ApJ, 853, 126R

Revisiting the logistic map: A closer look at the dynamics of a classic chaotic population model with ecologically realistic spatial structure and dispersal

Storch, L. S., Pringle, J. M., Alexander, K., **Jones, D. O.**, 2017, Theoretical Population Biology, 114, 10

The GALEX Time Domain Survey. II. Wavelength-Dependent Variability of Active Galactic Nuclei in the PAN-STARRS1 Medium Deep Survey

Hung, T., Gezari, S., **Jones, D. O.** et al., 2016, ApJ, 833, 226H

PS1-14bj: A Hydrogen-Poor Superluminous Supernova With a Long Rise and Slow Decay

Lunnan, R., Chornock, R., Berger, E., Milisavljevic, D., **Jones, D. O.** et al., 2016, ApJ, 831, 144L

PS1-10jh Continues to Follow the Fallback Accretion Rate of a Tidally Disrupted Star

Gezari, S., Chornock, R., Lawrence, A., Rest, A., **Jones, D. O.** et al., 2015, ApJ, 815L, 5G

Zooming In on the Progenitors of Superluminous Supernovae With HST

Lunnan, R., Chornock, R., Berger, E., [3 authors], **Jones, D. O.** et al., 2014, ApJ, 804, 90L

Two SNe Ia at Redshift 2: Improved Classification and Redshift Determination with Medium-band Infrared Imaging

Rodney, S. A., Riess, A. G., Scolnic, D. M., **Jones, D. O.** et al., 2015, AJ, 150, 156R

Type-Ia Supernova Rates to Redshift 2.4 from CLASH: The Cluster Lensing And Supernova Survey with Hubble

Graur, O., Rodney, S. A., [25 authors], **Jones, D. O.** et al., 2014, ApJ, 783, 28G

Three Gravitationally Lensed Supernovae behind CLASH Galaxy Clusters

Patel, B., McCully, C., Jha, S. W., Rodney, S. A., **Jones, D. O.** et al., 2014, ApJ, 786, 9P

Type Ia Supernova Rate Measurements to Redshift 2.5 from CANDELS: Searching for Prompt Explosions in the Early Universe

Rodney, S. A., Riess, A. G., [9 authors] **Jones, D. O.** et al., 2014, AJ, 148, 13R

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