Jonathan S. Brown

UCSC Astronomy & Astrophysics
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EDUCATION

2013–2018 **The Ohio State University**, Columbus, OH
Ph.D. in Astronomy, July 2018
Thesis: *Surveying Transient Host Galaxies with ASAS-SN*
Advisor: Prof. Krzysztof Stanek

M.S. in Astronomy, 2016

2009–2013 **University of Michigan**, Ann Arbor, MI
B.S. with Highest Honors, Astronomy & Astrophysics, 2013
Thesis: *On the Offset of Barred Galaxies from the M_{BH}–σ Relation*
Advisor: Prof. Monica Valluri

B.S., Interdisciplinary Physics, 2013

FELLOWSHIPS AND AWARDS

2018–now Postdoctoral Scholar, University of California Santa Cruz
2017 Allan Markowitz Graduate Award in Observational Astronomy
2017 Ohio State University Presidential Fellowship
2015 NSF Graduate Research Fellowship Honorable Mention
2013 Graduated University of Michigan with Highest Honors

ADDITIONAL RESEARCH EXPERIENCE

2012 **National Optical Astronomy Observatory**, Tucson, AZ
Research Experience for Undergraduates Summer Student

SELECTED PROPOSALS AND RESEARCH SUPPORT

2017 **PI**: "Spectroscopic Characterization of Faint ASAS-SN Host Galaxies"
Large Binocular Telescope, 9 hours/semester (PI: J. S. Brown)

2017 **Co-I**: "X-ray Spectroscopy of an ASAS-SN TDE"
Chandra X-ray Observatory, 400 ks in Cycle 19 (PI: C. S. Kochanek)

2017	**Co-I**: "Ultraviolet Spectroscopic Monitoring of an ASAS-SN TDE" Hubble Space Telescope, 22 orbits in Cycle 25 (PI: C. S. Kochanek)
2016	**Named Participant**: "All Sky Automated Network" Gordon and Betty Moore Foundation, ($2.5M, PI: K. Z. Stanek)
2016	**Co-I**: "X-ray Spectroscopy of an ASAS-SN TDE" Chandra X-ray Observatory, 400 ks in Cycle 18 (PI: C. S. Kochanek)
2016	**Co-I**: "Ultraviolet Spectroscopic Monitoring of an ASAS-SN TDE" Hubble Space Telescope, 22 orbits in Cycle 24 (PI: C. S. Kochanek)
2015-2017	**Named Participant**: "LBT Follow-up of ASAS-SN Transients" Large Binocular Telescope, 30 hours/semester (PI: K. Z. Stanek)
2016-2017	**Named Participant**: "Toward a Complete Nebular Spectroscopy Sample of Nearby SNe Ia" Large Binocular Telescope, 12 hours/semester (PI: K. Z. Stanek)
2015	**Named Participant**: "All-Sky Automated Survey for Supernovae: Big Science with Small Telescopes" National Science Foundation Grant ($630k, PI: K. Z. Stanek)
2014	**Co-I**: "A Cepheid-Based Distance to the Benchmark AGN NGC 4151" Hubble Space Telescope, 12 orbits in Cycle 22 (PI: B. Peterson)
2014	**Co-I**: "Quantifying the Bias in the Masses of Supermassive Black Holes in Barred Galaxies" Hubble Space Telescope, Cycle 22 (PI: M. Valluri)

OBSERVING EXPERIENCE

>50 nights (>30 as primary observer) on the twin 8.2m Large Binocular Telescope
4 nights on 10m Keck I, >25 nights on 1-3m telescopes

PROGRAMMING EXPERIENCE

- Languages: Python, IDL, Fortran77, C++, SQL, Mathematica, MATLAB
- Spectroscopic and photometric image processing and reduction
- Database driven web-app development with Python, Django, MySQL, and NGINX

TEACHING AND OUTREACH

GTA, Planets and the Solar System (Astro 1140), Fall 2013, Spring 2015
GTA, Life in the Universe (Astro 1141), Spring 2014, Summer 2014
GTA, Basic Astrophysics and Planetary Astronomy, Fall 2014
GTA (Lab Instructor), From Planets to the Cosmos (Astro 1101), Spring 2015
Member, Michigan Student Astronomical Society

PROFESSIONAL ACTIVITIES

2016 – present Referee, *The Astrophysical Journal* and *MNRAS*
2013 – present Member, American Astronomical Society

PUBLICATIONS

Summary: 31 total, 7 first author, 400+ citations

Submitted

31. *Discovery and Early Evolution of ASASSN-19bt, the First TDE Detected by TESS*
Holoien, T. W.-S et al. 2019, submitted to *MNRAS*
30. *Discovery of Highly Blueshifted Broad Balmer and Metastable Helium Absorption Lines in a Tidal Disruption Event*
Hung, T. et al. 2019, submitted to *ApJ*
29. *Clearing the Smoke: Nebular Spectra of 100+ Type Ia Supernovae Exclude Single Degenerate Progenitors*
Tucker, M. et al. 2019, submitted to *MNRAS*
28. *Signatures of Bimodality in Nebular Phase Type Ia Supernova Spectra: Indications of White Dwarf Collision Progenitors*
Vallely, P. et al. 2019, submitted to *MNRAS*
27. *PS18kh: A New Tidal Disruption Event with a Non-Axisymmetric Accretion Disk*
Holoien, T. W.-S et al. 2018, submitted to *MNRAS*
26. *The largest M dwarfs flares from ASAS-SN*
Schmidt, S. J. et al. 2018, submitted to *MNRAS*

Accepted/Published

25. *The relative specific Type Ia supernovae rate from three years of ASAS-SN*
Brown, J. S. et al. 2019, *MNRAS,* 484, 3785
24. *The Ultraviolet Spectroscopic Evolution of the Tidal Disruption Event iPTF16fnl*
Brown, J. S. et al. 2018, *MNRAS,* 473, 1130
23. *The Long Term Evolution of ASASSN-14li*
Brown, J. S. et al. 2017, *MNRAS,* 466, 4904
22. *Hello Darkness My Old Friend: the Fading of the Nearby TDE ASASSN-14ae*
Brown, J. S. et al. 2016, *MNRAS*, 462, 3993

21. *A Recalibration of Strong-line Oxygen Abundance Diagnostics via the Direct Method and Implications for the High-redshift Universe*
Brown, J. S. et al. 2016, *MNRAS*, 458, 1529

20. *Direct Method Gas-phase Oxygen Abundances of Four Lyman Break Analogs*
Brown, J. S. et al. 2014, *ApJ*, 792, 140

19. *On the Offset of Barred Galaxies from the Black Hole M_{BH}-σ Relationship*
Brown, J. S. et al. 2013, *ApJ*, 778, 151

18. *Seeing Double: ASASSN-18bt Exhibits a double-power-law Rise in the Early-Time K2 Light Curve*
Shappee, B. J. et al 2018, accepted to ApJ

17. *Photometric and Spectroscopic Properties of Type Ia Supernova 2018oh with Early Excess Emission from the Kepler 2 Observations*
Li, W. et al 2018, accepted to ApJ

16. *The Unusual Late-Time Evolution of the Tidal Disruption Event ASASSN-15oi*
Holoien, T. W.-S., **Brown, J. S.**, et al. 2018, *MNRAS*, 480, 5689

15. *The Overly Luminous Type Ibn Supernova ASASSN-14ms*
Vallely et al. 2018, *MNRAS*, 475, 2344

14. *Continuum Reverberation Mapping of the Accretion Disks in Two Seyfert 1 Galaxies*
Fausnaugh, M. M. et al. 2018, *ApJ*, 854, 107

13. *Reverberation Mapping of Optical Emission Lines in Five Active Galaxies*
Fausnaugh, M. M. et al. 2017, *ApJ*, 840, 97

12. *Space Telescope and Optical Reverberation Mapping Project. V. Optical Spectroscopic Campaign and Emission-Line Analysis for NGC 5548*
Pei et al. 2016, *ApJ*, 837, 131

11. *The ASAS-SN Bright Supernova Catalog – III. 2016*
Holoien, T. W.-S., **Brown, J. S.** et al. 2016, *MNRAS*, 471, 4966

10. *The ASAS-SN Bright Supernova Catalog – II. 2015*
Holoien, T. W.-S., **Brown, J. S.** et al. 2016, *MNRAS*, 467, 1098

9. *The ASAS-SN Bright Supernova Catalog – I. 2013-2014*
Holoien, T. W.-S. et al. 2017, *MNRAS*, 464, 2672

8. *ASASSN-15oi: A Rapidly Evolving, Luminous Tidal Disruption Event at 216 Mpc*
Holoien, T. W.-S. et al. 2016, *MNRAS*, 463, 3813

7. *The Eruption of the Candidate Young Star ASASSN-15qi*
Herczeg, G. J. et al. 2016, *ApJ*, 831, 133

6. *MUSE Reveals a Recent Merger in the Post-starburst Host Galaxy of the TDE ASASSN-14li*
Prieto, J. L. et al. 2016, *ApJL*, 830L, 74

5. *Supernova Progenitors, Their Variability, and the Type IIP Supernova ASASSN-16fq in M66*
Kochanek, C. S. et al. 2017, *MNRAS*, 467, 3347

4. *ASASSN-15lh: A highly super-luminous supernova*
Dong, S. et al. 2016, *Science*, 351, 257

3. *Six Months of Multiwavelength Follow-up of the Tidal Disruption Candidate ASASSN-14li and Implied TDE Rates from ASAS-SN*
Holoien, T. W.-S., et al. 2014, *ApJ*, 788, 48

2. *ASASSN-14ae: a Tidal Disruption Event at 200 Mpc*
Holoien, T. W.-S., et al. 2014, *ApJ*, 445, 3263

1. *The Black Hole Mass of NGC 4151. II. Stellar Dynamical Measurement from Near-infrared Integral Field Spectroscopy*
Onken, C. A., Valluri, M., **Brown, J. S.**, et al. 2014, *ApJ*, 791, 37

Circulars and Telegrams

320+ Astronomer's Telegrams (150+ submitted, 40+ first author)

CONFERENCE PROCEEDINGS AND TALKS

6. *Characterizing the Supernova Host Galaxy Population with ASAS-SN*
Brown, J. S., Dissertation talk at AAS 231, Washington, D. C. (Jan. 2018)

5. *Extragalactic Transients Discovered by the All-Sky Automated Survey for Supernovae*
Brown, J. S. and Holoien, T. W.-S., on behalf of the ASAS-SN Team. Poster presented at AAS 229, Grapevine, TX (Jan. 2017)

4. *Extragalactic Transients Discovered by the All-Sky Automated Survey for Supernovae*
   Brown, J. S. and Holoien, T. W.-S., on behalf of the ASAS-SN Team. Poster presented at AAS 227, Kissimmee, FL (Jan. 2016)

3. *A recalibration of strong-line oxygen abundance diagnostics via the direct method and implications for the high-redshift universe*
   Brown, J. S., University of Pittsburgh graduate student seminar, Pittsburgh PA, (Oct. 2015)

2. *On The Offset of Barred Galaxies From The M_{BH}-σ Relation*
   Brown, J. S., Valluri, M., Shen, J., Debattista, V., Hartmann, M., Poster presented at AAS 222, Indianapolis, IN (Jun. 2013)

1. *Measuring Accretion Variability with H I Pfund β*
   Brown, J. S., Salyk, C., and Flaherty, K. M. Poster presented at AAS 221, Long Beach, CA (Jan 2013)

REFERENCES

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