
JAMES WILLIAM JOHNSON

Office: The Ohio State University, Department of Astronomy
140 W. 18th Ave., Columbus, OH 43210
Home: 1564 Runaway Bay Dr. Apt 2B
Columbus, OH 43204
Email: johnson.7419@osu.edu | giganano9@gmail.com
Website: <https://sites.google.com/view/jameswjohanson/>
Phone: (402)-499-3848

EDUCATION

| | |
|---------------------------------------|------------------------------------|
| Anticipate PhD in Astrophysics | 2023 |
| The Ohio State University | Columbus, Ohio |
| MS in Astrophysics | November 20, 2019 |
| The Ohio State University | Columbus, Ohio |
| Advisor: David H. Weinberg | |
| GPA: 4.000/4.000 | |
| BA in Physics & Astronomy | May 12, 2017 |
| Vanderbilt University | Nashville, Tennessee |
| Highest Honors in Astronomy | Thesis Advisor: Andreas A. Berlind |
| GPA: 3.797/4.000 | <i>cum laude</i> |

TEACHING

The Ohio State University, Department of Astronomy: Graduate Teaching Assistant

| | |
|--|-------------------------|
| Astronomy 1101: From Planets to Cosmos | 4 semesters, 5 sections |
| Astronomy 1140: Planets and the Solar System | 1 semester |
| Astronomy 1142: Black Holes | 1 semester |
| Astronomy 1221: Astronomy Data Analysis | 1 semester |

The Ohio State University, Department of Astronomy: Python Bootcamp May 2020, 2021

Sole designer and instructor ~20 hours of instruction plus exercises

Links: [GitHub Repository](#) | [YouTube Recordings](#)

SOFTWARE DEVELOPMENT

Versatile Integrator for Chemical Evolution (VICE) Python Package, Lead Developer

Links: Install - [PyPI](#) | Documentation - [ReadTheDocs](#) | Source Code - [GitHub](#)

Journal Publications: [Johnson & Weinberg \(2020\)](#), [Johnson et al. \(2021\)](#),
[Griffith et al. \(2021\)](#)

HONORS & AWARDS

| | |
|--|--|
| Larry Ross Cathey Award | Vanderbilt University, Department of Physics & Astronomy |
| Sigma Pi Sigma Physics National Honor Society | Inducted spring 2015 |
| Vanderbilt University Dean's List | 7 of 8 semesters |

BROADER ACTIVITIES

| | |
|---|--------------------------|
| Ohio Science Olympiad: Volunteer | Spring 2019 |
| FOSAA: Friends of Ohio State Astronomy & Astrophysics | Summer 2018 – Present |
| Participant in Diversity Journal Club | Fall 2017 – Present |
| The Ohio State University, Department of Astronomy | |
| “Galaxy Hour” Weekly Research Meeting Co-Organizer | September 2021 – Present |
| The Ohio State University, Department of Astronomy | |
| Real Scientists Germany Online Outreach | June 15 – 21, 2020 |
| Links: Blog [In German] Twitter [In German] | |

RESEARCH

ADS Libraries: [All My Papers](#) | [My Lead-Author Papers](#) | [My Co-Authored Papers](#)

Metrics: 3 lead author publications, 5 contributing author publications, 67 citations, h-index: 4

Conferences Attended

| | |
|---|----------------------------|
| Sloan Digital Sky Survey Collaboration Meeting 2021 | Contributed Talk |
| Virtual due to COVID-19 pandemic | August 11-12 & 16-17, 2021 |
| 2021 GALAH Science Meeting | Contributed Talk |
| Sydney, Australia, and virtual due to COVID-19 pandemic | June 22 – 24, 2021 |
| Sloan Digital Sky Survey Collaboration Meeting 2020 | Contributed Talk |
| Virtual due to COVID-19 pandemic | June 22 – 26, 2020 |
| 236th American Astronomical Society Meeting | iPoster-Plus Presentation |
| Virtual due to COVID-19 pandemic | June 1 – 3, 2020 |

Lead Author Publications

| | |
|--|------------------|
| <i>Stellar Migration and Chemical Enrichment in the Milky Way Disc: A Hybrid Model</i> | arxiv:2103.09838 |
| J.W. Johnson , et al. | |
| Submitted to MNRAS, under peer review | |
| <i>The Impact of Starbursts on Element Abundance Ratios</i> | arxiv:1911.02598 |
| J.W. Johnson , D.H. Weinberg | |
| 2020, MNRAS, 498, 1364 | |

The Secondary Spin Bias of Dark Matter Haloes arxiv:1812.02206
J.W. Johnson, A.H. Maller, A.A. Berlind, M. Sinha, J.K. Holley-Bockelmann
 2019, MNRAS, 486, 1156

Contributing Author Publications

Chemical Cartography with APOGEE: Mapping Disk Populations with a Two-Process Model and Residual Abundances arxiv:2108.08860
 D.H. Weinberg, et al., incl. **J.W. Johnson**
 Submitted to ApJ, under peer review

CNO Dredge-Up in a Sample of APOGEE/Kepler Red Giants: Tests of Stellar Models and Galactic Evolutionary Trends of N/O and C/N arxiv:2106.03912
 F. Vincenzo, et al., incl. **J.W. Johnson**
 Submitted to MNRAS, under peer review

The Impact of Black Hole Formation on Population Averaged Supernova Yields arxiv:2103.09837
 E.J. Griffith, et al., incl. **J.W. Johnson**
 Submitted to ApJ, under peer review

Nucleosynthesis Signatures of Neutrino-Driven Winds from Proto-Neutron Stars: A Perspective from Chemical Evolution Models arxiv:2102.04920
 F. Vincenzo, et al., incl. **J.W. Johnson**
 Submitted to MNRAS, under peer review

The Similarity of Abundance Ratio Trends and Nucleosynthetic Patterns in the Milky Way Bulge arxiv:2009.05063
 E.J. Griffith, et al., incl. **J.W. Johnson**
 2021, ApJ, 909, 77