

James William Johnson

Home Address: 1564 Runaway Bay Drive Apt 2B, Columbus, OH 43204
Office: Ohio State University, Dept. of Astronomy, 140 W. 18th Ave., Columbus, OH 43210
Phone: (402)-499-3848 • Email: johnson.7419@osu.edu
GitHub: <https://github.com/giganano>

Education

- Anticipate Doctor of Philosophy in Astrophysics 2022 – 2023
 ○ The Ohio State University Columbus, Ohio
- Master of Science in Astrophysics November 20, 2019
 ○ The Ohio State University Columbus, Ohio
 ○ GPA: 4.000/4.000
 ○ Defense Committee: David H. Weinberg (chair), Jennifer A. Johnson, Todd A. Thompson, Adam K. Leroy
- Bachelor of Arts in Physics & Astronomy May 12, 2017
 ○ Vanderbilt University Nashville, Tennessee
 ○ Highest Honors in Astronomy Thesis Advisor: Andreas A. Berlind
 ○ GPA: 3.797/4.000 *cum laude*
 ○ Study Abroad: Vanderbilt in Berlin Freie Universität Berlin
- High School Diploma May 25, 2013
 ○ Lincoln East High School Lincoln, Nebraska
 ○ GPA: 4.267/4.000 (weighted) Top 3% of graduating class

Research

Broadly, I am interested in the formation and evolution of galaxies and dark matter halos. More specifically, I have worked on the dependence of dark matter halo angular momenta on their large-scale environments, and the chemical and dynamical evolution of galaxies. Lately, I am particularly interested in the Milky Way as a case study of galactic chemodynamical evolution.

- **Lead-Author Publications**
 - *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
 - *The Impact of Starbursts on Element Abundance Ratios* arXiv:1911.02598
J.W. Johnson, D.H. Weinberg
Submitted to MNRAS
- **Software Development**
 - Versatile Integrator for Chemical Evolution (**VICE**) Python Package
<https://github.com/giganano/VICE.git>

Employment

- The Ohio State University Department of Astronomy
 - Research Fellow August 2017 – August 2018
 - Teaching Assistant August 2018 – December 2019
 - Research Assistant January 2020 – Present
- Vanderbilt University Physics Department January 2015-April 2017
 - Tutoring
 - Proctoring
 - Grading
- University of Nebraska-Lincoln Summer 2015
 - Cosmic Ray Observatories Project

Honors & Awards

- Larry Ross Cathey Award (Vanderbilt University) Spring 2017
 - Outstanding graduating senior studying astronomy
- Sigma Pi Sigma Physics National Honor Society Inducted Spring 2015
- Dean's List: Vanderbilt University 7 of 8 Semesters
- National Society of Collegiate Scholars Inducted Spring 2013
- National Society of High School Scholars Inducted Spring 2012
- National Honor Society Inducted Fall 2012
- High School Varsity Letter Award
 - Academics 2012-2013
 - Tennis: Team Captain Fall 2012
- High School Scholar Athlete Award 2010-2012

Broader Activities

- Science Olympiad: Volunteer Spring 2019 – Present
- FOSAA: Friends of Ohio State Astronomy & Astrophysics Summer 2018 – Present
- WRVU: Vanderbilt University Student Radio DJ Spring 2014-Spring 2017

Special Skills

- Computer Programming Python, C, Bash, LaTeX, Mathematica
- Languages
 - English Native Speaker
 - German Fluent: C1 (Freie Universität Berlin)