

Gillen Brown

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Education

University of Michigan

Ph.D. in Astronomy

Advisor: Oleg Y. Gnedin

Dissertation: Investigating the Formation of Star Clusters with Simulations and Observations

Ann Arbor, MI

September 2016 — April 2022

University of Missouri-Kansas City (UMKC)

B.S. Physics with emphasis in Astronomy

Math and Computer Science minors

Kansas City, MO

May 2016

Publications

5. **Brown, G.**, Gnedin, O. Y., “Testing Feedback from Star Clusters in Simulations of the Milky Way Formation”, 2022, MNRAS, 514, 280
4. **Brown, G.**, Gnedin, O. Y., “Radii of Young Star Clusters in Nearby Galaxies”, 2021, MNRAS, 508, 5935
3. **Brown, G.**, Gnedin, O. Y., “Improving performance of zoom-in cosmological simulations using initial conditions with customized grids”, 2021, New Astronomy, 84, 101501
2. **Brown, G.**, Gnedin, O. Y., “Nuclear Star Clusters in Cosmological Simulations”, 2018, ApJ, 864, 94
1. Gonzalez, A., Gettings, D., Brodwin, M., et al. including **Brown, G.**, “The Massive and Distant Clusters of WISE Survey. I: Survey Overview and a Catalog of >2000 Galaxy Clusters at $z \approx 1$ ”, 2019, ApJS, 240, 33

Presentations

- Origins Workshop - ISM, Star and Cluster Formation, January 2022, talk: “Radii of Young Star Clusters in Nearby Galaxies”
- Santa Cruz Galaxy Workshop, August 2019, poster: “Star Cluster Formation in Cosmological Simulations”

Awards, Grants, and Computing Time Allocations

University of Michigan — Rackham Predoctoral Fellowship	2021-2022
HST Cycle 29 Program AR-16614 — “Measuring sizes of young star clusters in nearby galaxies”	2021
TACC Frontera — 2.38 million CPU-hour allocation, Co-I (Oleg Y. Gnedin)	2021
XSEDE Stampede2 and Anvil — 5.7 million CPU-hour allocation, Co-I (Oleg Y. Gnedin)	2021
XSEDE Stampede2 — 7.44 million CPU-hour allocation, Co-I (Oleg Y. Gnedin)	2020
Michigan Institute for Computational Discovery and Engineering — Catalyst Grant, Co-I (Oleg Y. Gnedin)	2020

Teaching

GSI, Astro 201 — Introduction to Astrophysics	Winter 2021
Graduate Student GSI Mentor	Fall 2019 — Winter 2021
Instructor of Record, Astro 127 — Naked Eye Astronomy	Spring 2019
GSI, Astro 102 — Introductory Astronomy: Stars, Galaxies, and the Universe	Winter 2019
GSI, Astro 107 — The Dark Side of the Universe	Winter 2019
GSI, Astro 101 — Introductory Astronomy: The Solar System and Search for Life	Winter & Fall 2017

Activities

UM Astronomy DEI Champion Award Winner	2021
UM Astronomy Antiracism Reading Group — Leadership Team	2020 — 2021
UM Astronomy Galaxy Group Organizer	2019 — 2021
UM Astronomy Curriculum Committee — Graduate Student Representative	2018, 2021
Michigan Institute for Data Science — Basketball Data Challenge — Winner	2020
UM Astronomy Prospective Student Weekend Organizer	2020
UM Astronomy Prelim Review Committee — Graduate Student Representative	2019 — 2020
UM Astronomy Graduate Student Colloquium Lunch Organizer	2018 — 2019

Outreach

Michigan Dark Skies Group — Co-Coordinator	2017 — 2022
Astronomy on Tap: Ann Arbor — Leadership Team	2019 — 2021
University of Michigan Museum of Natural History Science Communication Fellow	2019

Public Talks

Brighton District Library, “Light Pollution and Michigan’s Dark Skies”	May 2022
Warren Astronomical Society, “Origin of the Elements”	May 2021
Plymouth District Library, “Light Pollution and Michigan’s Dark Skies”	February 2021
University of Michigan Museum of Natural History, “Building the Universe”	9 times in 2019 — 2020
Astronomy on Tap: Ann Arbor, “Origin of the Elements”	October 2019
Ann Arbor Hands-On Museum, “How the Moon Formed”	July 2019
Ellis Library & Reference Center, “The Scientific Legacy of the Moon Landings”	July 2019
Nerd Nite Ann Arbor, “Origin of the Elements”	March 2019
Ignite Ann Arbor, “Reclaiming the Night Sky”	November 2018