

Qu, Zhijie

Department of Astronomy and Astrophysics
University of Chicago
Chicago, IL 60637
quzhijie@uchicago.edu

ORCID: 0000-0002-2941-646X
Homepage: <https://quzhijie.github.io>
ADS Library ID: Ji7tbpTxSJCxOVkkuOrS3g

Employment

Postdoctoral Associate, University of Chicago, 2021-.
Host: Hsiao-Wen Chen.

Education

PhD, Astrophysics, University of Michigan, 2017-2021.
Advisor: Joel N. Bregman.

MS, Astrophysics, University of Michigan, 2015-2017.

BS, Astronomy (Graduate with Honors), Peking University, 2011-2015
Advisor: Renxin Xu and M.B.N. (Thijs) Kouwenhoven.

Scholarships & Awards

2021 - The ProQuest Distinguished Dissertation Awards, The University of Michigan.
2020 - Rackham Dissertation Fellowship, The University of Michigan.
2016-2019 - Rackham Travel Awards, The University of Michigan.
2015 - Weiming Physics Scholarship, School of Physics, Peking University.
2015 - Xingcheng Undergrad Research Forum, First Prize, School of Physics, Peking University.
2014 - Science Base Scholarship, Second Prize, Peking University.
2014 - NAOC Scholarship, National Astronomical Observatories, Chinese Academy of Sciences.
2013 - Lin Bridge Scholarship, Department of Astronomy, Peking University.
2013 - Zhang Wenxin Scholarship, School of Physics, Peking University.

Teaching Experience

Graduate Student Instructor - Astro 102: Stars, Galaxies, and the Universe
Graduate Student Instructor - Astro 106: Aliens

Research Advising

6. Adviser: Zeyang Pan (MS UChicago -> UCAS), 2021-present, *"Solar Wind Change Exchange in the XMM-Newton Archive"*.
5. Co-adviser: Cameron Pratt (Grad UMich), 2020-present, *"The Hot Gas Halo Surrounding Poor Galaxy Groups in SZ"*.
4. Co-adviser: Rui Huang (visiting Grad at UMich from THU), 2020-present, *"The Hot CGM of M31 in X-ray"*.
3. Co-adviser: Hang Yang (visiting Grad at UMich from PMO), 2019-present, *"The Escaping Ionizing Radiation From Galaxies"*.
2. Co-adviser: Xiaodi Yu (Grad at XMU), 2019-present, *"Probing the He II re-Ionization ERA via Absorbing C IV Historical Yield (HIERACHY)"*.
1. Adviser: Ryan Lindley (Undergrad at UMich), 2019-present, *"The C IV Absorption Line Survey of the Milky Way"*.

Proposals

6. 2021 - NASA Astrophysics Data Analysis Program, Co-I (PI: Bregman), \$692.8k (\$80.0k goes to U. Chicago)
"Resolving the Hot Halos to the Virial Radius and Beyond in the Local Universe"
5. 2019 - *Hubble Space Telescope*, Cycle 27, 15806, Archival Research (PI), \$97.6k
"The Rotation, Accretion, and Mass of the Milky Way Warm Gas Disk and CGM"
4. 2018 - NASA Astrophysics Data Analysis Program, Co-I (PI: Bregman), 526.4k
"Hot Halos of Galaxies and Galaxy Groups-Reservoirs of Baryons and Metals"
3. 2018 - Magellan Telescope, Cycle 2018A, 2 nights (PI)
"Host Galaxies of the Mg X/Ne VIII Absorption Systems: LBQS 1435-0134"
2. 2018 - Magellan Telescope, Cycle 2017B, 3 nights (PI)
"Host Galaxies of the Mg X/Ne VIII Absorption Systems: PHL 1377"
1. 2017 - *Chandra* X-ray Observatory, Cycle 18, 50 ks (Co-I)
"Gaseous Galaxy Halos in the Transition Between Hot and Cold Mode Accretion."

Conferences & Talks

10. Jan. 19 2021 - OSU CCAPP Seminar, "Warm-Hot Circumgalactic Medium and its Co-Evolution with Galaxy Disk", Columbus, Ohio.
9. Nov. 19 2020 - Caltech CGM Seminar, "Warm-Hot Circumgalactic Medium and its Co-Evolution with Galaxy Disk", Pasadena, California.
8. Oct. 7th 2019 - WIM Workshop, Contributing Talk, "The Warm Gas in the MW – Rotation, Accretion, and Mass", Green Bank, West Virginia.
7. Aug. 28th 2018 - XXX IAU General Assembly, "The Mass and Column Densities of Galactic Gaseous Halos", Vienna, Austria.

6. Jul. 31st 2018 - CGM Workshop 2018, Contributing Talk, "The Mass and Column Densities of Galactic Gaseous Halos", Northwestern University, Evanston, Illinois.
5. Mar. 6th 2018 - Dinner Talk, "Understanding the Galaxy Evolution with Gaseous Halos", Peking University, Beijing, China.
4. Mar. 1st 2018 - Colloquium Talk, "Understanding the Galaxy Evolution with Gaseous Halos", The Purple Mountain Observatory, Nanjing, China.
3. Jan. 2018 - 231st AAS Meeting, "The Mass and Absorption Columns of Galactic Gaseous Halos", Washington, DC.
2. Aug. 2017 - 16th HEAD Meeting, "Detection of Possible Intervening Mg X Associated with A Hot Gaseous Galaxy Halo", Sun Valley, Idaho.
1. Jul. 2014 - Fast Pulsar Symposium 3, "Analysis of Short Bursts in AXPs/SGRs", Shanghai, China.

Publications (First-Authored and Student-Authored *)

12. Zhijie Qu, Ryan Lindley, and Joel N. Bregman. The Warm Gas in the Milky Way: The Kinematical Model of C IV and Its Connection to Si IV. *ApJ*, 924(2):86, January 2022
11. Zhijie Qu and Joel N. Bregman. Absorption Line Search Through Three Local Group Dwarf Galaxy Halos. *ApJ accepted*, December 2021
10. *Cameron T. Pratt, Zhijie Qu, and Joel N. Bregman. The Resolved Sunyaev-Zel'dovich Profiles of Nearby Galaxy Groups. *ApJ*, 920(2):104, October 2021
9. *Xiaodi Yu, Jiang-Tao Li, Zhijie Qu, Ian U. Roederer, Joel N. Bregman, Xiaohui Fan, Taotao Fang, Sean D. Johnson, Feige Wang, and Jinyi Yang. Probing the He II re-ionization E_{ra} via Absorbing C IV Historical Yield (HIERACHY) I: A strong outflow from a $z = 4.7$ quasar. *MNRAS*, 505(3):4444–4455, August 2021
8. Zhijie Qu, Rui Huang, Joel N. Bregman, and Jiang-Tao Li. An X-Ray- and SZ-bright Diffuse Source toward M31: A Local Hot Bridge. *ApJ*, 907(1):14, January 2021
7. Zhijie Qu, Joel N. Bregman, Edmund Hodges-Kluck, Jiang-Tao Li, and Ryan Lindley. The Warm Gas in the MW: A Kinematical Model. *ApJ*, 894(2):142, May 2020
6. Zhijie Qu and Joel N. Bregman. The Warm Gaseous Disk and the Anisotropic Circumgalactic Medium of the Milky Way. *ApJ*, 880(2):89, Aug 2019
5. Zhijie Qu, Joel N. Bregman, and Edmund J. Hodges-Kluck. HST/COS Observations of the Warm Ionized Gaseous Halo of NGC 891. *ApJ*, 876(2):101, May 2019
4. Zhijie Qu and Joel N. Bregman. The Mass and Absorption Column Densities of Galactic Gaseous Halos. II. The High Ionization State Ions. *ApJ*, 862(1):23, July 2018
3. Zhijie Qu and Joel N. Bregman. The Mass and Absorption Columns of Galactic Gaseous Halos. *ApJ*, 856(1):5, March 2018
2. Zhijie. Qu and Joel N. Bregman. A Hot Gaseous Galaxy Halo Candidate with Mg X Absorption. *ApJ*, 832:189, December 2016
1. Zhijie Qu, Zhaosheng Li, Yupeng Chen, Shi Dai, Long Ji, Renxin Xu, and Shu Zhang. The Short Bursts in SGR 1806-20, 1E 1048-5937, and SGR 0501+4516. *PASP*, 127(949):211, March 2015

Publications (Co-Authored)

3. Joel N. Bregman, Edmund Hodges-Kluck, Zhijie Qu, Cameron Pratt, Jiang-Tao Li, and Yansong Yun. Hot Extended Galaxy Halos Around Local L^* Galaxies From Sunyaev-Zeldovich Measurements. *arXiv*, page 2107.14281, July 2021
2. Joel N. Bregman, Michael E. Anderson, Matthew J. Miller, Edmund Hodges-Kluck, Xinyu Dai, Jiang-Tao Li, Yunyang Li, and Zhijie Qu. The Extended Distribution of Baryons around Galaxies. *ApJ*, 862(1):3, July 2018
1. Zhaosheng Li, Zhijie Qu, Li Chen, Yanjun Guo, Jinlu Qu, and Renxin Xu. An Ultra-low-mass and Small-radius Compact Object in 4U 1746-37? *ApJ*, 798(1):56, January 2015

Last updated: March 20, 2022