

Yong Zheng

Curriculum Vitae

Miller Institute For Basic Research In Science
Department of Astronomy
University of California, Berkeley

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RESEARCH INTERESTS

- Galaxy Evolution, Gas Inflows and Outflows, Circumgalactic Medium (CGM), CGM-Galaxy Interplay

EDUCATION

- **Columbia University**, New York, NY, USA
Ph.D. Candidate, Astrophysics June 2018
Thesis Project: *The Cycle of Gaseous Baryons between the Disk and Halo* (expected)
Thesis Advisors: Mary E. Putman, Joshua E. G. Peek
M.A., M.Phil., Astrophysics 2014
- **Peking University**, Beijing, China
B.S., Astronomy 2012
- **Fuzhou No.1 High School**, Fujian, China 2008

AWARDS & PROPOSALS

- Miller Fellow, Miller Institute Postdoctoral Scholar Award, UC Berkeley 2018-2021
- Hubble Fellow, NASA Hubble Fellowship Program Postdoctoral Fellowship (Declined) 2018
- Finalist for MIT Pappalardo Fellowships 2017
- [Principle Investigator, Hubble Space Telescope Cycle 25, GO Proposal 15156, 32 orbits](#) 2017
Proposal Title: *Mapping Gas Flows from the Disk to the Circumgalactic Medium*
- Dean's Fellowship, Graduate School of Arts and Science, Columbia University 2012-present
- First Prize, Linbridge Prize for Excellent Undergraduate Research Projects in Astronomy and Astrophysics, Kavli Institute for Astronomy and Astrophysics, Beijing, China 2011
- Scholarship of Astronomical Alumni Fund for Excellent Undergraduates in Astronomy, Kavli Institute for Astronomy and Astrophysics, Beijing, China 2011
- Scholarship of National Astronomical Observatories, Chinese Academy of Sciences (NAOC) Beijing, China 2010

SCHOOLS & INTERNSHIPS

- NAIC/NRAO Single-Dish & NAASC Interferometry Schools, July 2015
Green Bank Telescope, Charlottesville, Virginia
Project: Measuring H I Masses of Shocked Post-Starburst Galaxies
Advisor: Robert F. Minchin
- Academic Writing for International Students, American Language Program, Fall 2013
School of Professional Studies, Columbia University
- Graduate Internship, Very Large Array, NRAO, Socorro, New Mexico Summer 2013
Project: Modeling the Non-thermal Radio Emission of a Classical Nova V1723Aql
Advisors: Michael Rupen, Amy Mioduszewski
- English Pronunciation for International Teaching Fellows, Fall 2012 & Spring 2013
School of Professional Studies, Columbia University

- Observational Astronomy School, Kavli Institute for Astronomy & Astrophysics, Peking University & National Astronomical Observatories, Chinese Academy of Sciences (NAOC), Beijing, China Oct. 2011
- Summer Internship, Shanghai Astronomical Observatory, Shanghai, China Summer 2011

SCIENTIFIC TALKS

20. Brown Bag Seminar, MIT, Boston, Massachusetts Dec. 2017
19. Seminar, University of Chicago, Chicago, Illinois Nov. 2017
18. UCSC FLASH Seminar, Santa Cruz, California Nov. 2017
17. Caltech Tea Talk Seminar, Los Angeles, California Nov. 2017
16. Invited Talk, Princeton Thunch Seminar, New Jersey Sept. 2017
15. Conference, In & Out. What Rules the Galaxy Baryon Cycle? July 2017
Munich Institute for Astro- and Particle Physics, Munich, Germany
14. Conference, What Matter(s) Around Galaxies: Resolving the Physics of the Circumgalactic Medium, Durham University, Durham, UK June 2017
13. Conference, Life Cycle of Metals Throughout the Universe: Celebrating 50 Years of UV Astronomy, STScI Spring Symposium, Maryland April 2017
12. Invited Seminar, American Museum of Natural History, New York Oct. 2016
11. Invited Talk, JILA Seminar, University of Colorado Boulder, Colorado Feb. 2016
10. UCSC IMPS Winter Retreat, Santa Cruz, California Feb. 2016
9. Conference, Observational Evidence of Gas Accretion onto Galaxies, NRAO, Charlottesville, Virginia Oct. 2015
8. Conference, Life Cycle of Gas in Galaxies: A Local Perspective, ASTRON, Dwingeloo, Netherlands Sept. 2015
7. Invited Talk, KIAA Seminar, Peking University, Beijing, China Sept. 2015
6. NAOC Seminar, Beijing, China Sept. 2015
5. Invited Talk, UCSC Seminar, Santa Cruz, CA May 2015
4. Conference, The Role of Hydrogen in the Evolution of Galaxies, Kuching, Malaysia Sept. 2014
3. Poster, AAS Winter Meeting, Maryland Jan. 2013
2. Third Korean-Chinese Informal Workgroup Meeting on Astro-dynamics for Stars and Galaxies, NAOC, Beijing, China Dec. 2011
1. Symposium of Astronomy Undergraduate Students, Kavli Institute for Astronomy and Astrophysics & Peking University, Beijing, China Sept. 2011

ADVISING & TEACHING

- Research Advisor of Columbia Undergrad Harrison Cook's Undergrad Research Summer 2018
- Research Advisor of Columbia Undergrad Amalya Johnson's Undergrad Research Spring 2018
- Research Advisor of Columbia Undergrad Larry Li's Summer Research Summer 2015
- Lab Observing Instructor, Astronomy Labs I & II, Columbia Fall 2014-Fall 2015
- Lab Instructor, Stars, Galaxies and Cosmology (W1904), Columbia Spring 2014
- Lab Instructor, Earth, Moon, and Planets (W1903), Columbia Fall 2013
- Mentor, Astronomy Undergraduate Mentoring Program, Columbia 2015-2017
- Mentor, Astronomy Peer Mentoring Program, Columbia 2015-2017

PUBLIC OUTREACH

- Astronomy on Tap, Lecture: Astronomy Version X Sept. 2017
- [Reading Team Math Program](#) for Kindergarteners and 1st-grades from 2017-2018
Low-income Families, Math Tutor for Kindergarteners Every Friday
- Girls Science Day at Columbia, Experiment leader, Drafted Astronomy Experiment Proposal for High-School Girl Visits Oct. 2016
- Columbia Public Lectures and Stargazing Nights, Volunteer and Telescope Operator 2012 - present
Public Lecture: The Gas that Fills Invisible Space March 2016
- GOALS for Girls Summer Intensive Program, Aviation and Space Science Summer 2016 &
Mentorship Day, The Intrepid Sea, Air Space Museum, New York Summer 2017
Mentor for 8th/9th Grade Girls to Share Career Experience as a Woman in STEM
- World Science Festival, Brooklyn Bridge Park, New York, Telescope Volunteer June 2016

SKILLS

- Spectroscopic Analysis Techniques
- 3D Datacube Analysis Techniques
- Python, IDL, Adobe Illustrator, Glue Data Visualization Tool, HTML

LANGUAGES

- Fuzhounese (Native)
- Mandarin (Native)
- English (Fluent)

FIRST-AUTHORED JOURNAL ARTICLES

4. **Y. Zheng**, J.E.G. Peek, M.E. Putman, and J.K. Werk. *Revealing the Milky Way's Hidden Circumgalactic Medium with the COS Quasar Database for Galactic Absorption Lines*. Submitted to ApJ. [arXiv: 1710.10703](#)
3. **Y. Zheng**, J.E.G. Peek, J.K. Werk, and M.E. Putman. *HST/COS Observations of Ionized Gas Accretion at the Disk-Halo Interface of M33*. [ApJ, 834, 179Z, \(2017\)](#)
2. **Y. Zheng**, J.K. Werk, J.E.G. Peek, and M.E. Putman. *The Discovery and Origin of A Very-High Velocity Cloud toward M33*. [ApJ, 840, 65Z, \(2017\)](#)
1. **Y. Zheng**, M. E. Putman, J.E.G. Peek, and M.R. Joung. *The Circumgalactic Medium of the Milky Way is Half Hidden*. [ApJ, 807, 103Z, \(2015\)](#)

CO-AUTHORED JOURNAL ARTICLES

5. J.E.G. Peek, B.L. Babler, **Y. Zheng**, S.E. Clark, K. Douglas, E.J. Korpela, M.E. Putman, S. Stanimirovic, S. Gibson, C. Heiles. *The GALFA-HI Survey Data Release 2*. [ApJS, 234, 2, \(2018\)](#)
4. J.H.S. Weston, J.L. Sokoloski, B.D. Metzger, **Y. Zheng**, L. Chomiuk, M.I. Krauss, J.D. Linford, T. Nelson, A.J. Mioduszewski, M.P. Rupen, T. Finzell, and K. Mukai. *Non-thermal Radio Emission from Colliding Flows in Classical Nova V1723 Aql*. [MNRAS, 457, 887-901, \(2016\)](#)
3. J.E.G. Peek, R. Bordoloi, H. Sana, J. Roman-Duval, J. Tumlinson, and **Y. Zheng**. *The First Distance Constraint on the Renegade High-Velocity Cloud Complex WD*. [ApJ, 828L, 20P, \(2016\)](#)
2. M.S. Xiang, X.W. Liu, H.B. Yuan, Z.Y. Huo, Y. Huang, **Y. Zheng**, H.W. Zhang, B.Q. Chen, H.H. Zhang, N.C. Sun, C. Wang, Y.H. Zhao, J.R. Shi, A.L. Luo, G.P. Li, Z.R. Bai, Y. Zhang, Y.H. Hou, H.L. Yuan, G.W. Li. *Relative Flux Calibration for the LAMOST Spectroscopic Survey of the Galactic Anticentre*. [MNRAS, 448, 90-103, \(2015\)](#)
1. R. de Grijs, C. Li, **Y. Zheng**, L. Deng, Y. Hu, M.B.N. Kouwenhoven, and J.E. Wicker. *Gravitational Conundrum? Dynamical Mass Segregation versus Disruption of Binary Stars in Dense Stellar Systems*. [ApJ, 765, 4D, \(2013\)](#)