Yong Zheng

Curriculum Vitae

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

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Research Interests

- Circumgalactic Medium (CGM), Baryonic Cycles between Galaxies and Halos, Gas Inflows and Outflows

Education

- **Columbia University**, New York, NY, USA
  Ph.D., Astronomy — June 2018
  Thesis Project: *The Cycle of Gaseous Baryons between the Disk and Halo*
  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 Fellowship — 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 — 2012-2018
- 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, Green Bank Telescope, Charlottesville, Virginia — July 2015
  Project: Measuring H I Masses of Shocked Post-Starburst Galaxies
  Advisor: Robert F. Minchin
- Academic Writing for International Students, American Language Program, School of Professional Studies, Columbia University — Fall 2013
- 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, School of Professional Studies, Columbia University — Fall 2012 & Spring 2013

- 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

23. Invited Colloquium, UC Santa Cruz, California — Feb 2019
22. Lunch Talk, UC Berkeley, California — Sept 2018
21. Dissertation Talk, 231st AAS Meeting, DC — Jan 2018
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? Munich Institute for Astro- and Particle Physics, Munich, Germany — July 2017
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

- Advisor of Columbia Undergrad Harrison Cook's Summer Research and Thesis — Summer 2018-present
- Advisor of Columbia Undergrad Amalya Johnson's Undergrad Research — Spring 2018
- 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 Low-income Families, Math Tutor for Kindergarteners Every Friday — 2017-2018
- 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)