Li, Yuan

Columbia University in the City of New York
Department of Astronomy and Astrophysics
550 West 120th Street
New York, New York 10027

Fax: (212) 854-8121
Phone: (917) 562-3249
Email: yuan@astro.columbia.edu
Web: www.astro.columbia.edu/~yuan/

Education

Columbia University in the City of New York
Major: Astronomy and Astrophysics
Degree: Ph.D. expected May 2014
Advisor: Greg L. Bryan

Purple Mountain Observatory, Chinese Academy of Sciences
Major: Astronomy and Astrophysics
Degree: M.S. 2008
Advisor: Daming Wei

Nanjing University, China
Major: Atmospheric Science
Degree: B.S. 2005

Research Interests

Galaxy clusters and massive galaxies, Black holes and AGN feedback, Interstellar medium and intracluster medium & Star formation and galaxy evolution.

Skills

Python, IDL, C, C++, IRAF, LaTex, Linux, Enzo & yt.

Research Experience

Simulations of the cooling flow and AGN feedback in cool-core galaxy clusters, 2009 – Present.

Observations and data reduction of the optical afterglow of GRB 100213B with the MDM 1.3m telescope on Kitt Peak, 2010.

Extreme UV luminous galaxies, galaxy UV luminosity function and its evolution with redshift using GALEX and CFHTLS data, 2008 – 2010.

Gamma-ray Bursts (GRBs) and the Dust Extinction of GRB Host Galaxies, 2005 – 2008.

Publications

Journal Articles

Yuan Li, & Greg L. Bryan, "Modeling AGN Feedback in Cool-Core Clusters: The Balance between Heating and Cooling", submitted to ApJ (arXiv:1401.7695).

Yuan Li, & Greg L. Bryan, "Modeling AGN Feedback in Cool-Core Clusters: The Formation of Cold Clumps", submitted to ApJ (arXiv:1310.7580).

The Enzo Collaboration, Bryan, G. L., Norman, M. L., OShea, B. W., Abel, T., Wise, J. H., Turk, M. J., Reynolds, D. R., Collins, D. C., Wang, P., Skillman, S. W., Smith, B., Harkness, R. P., Bordner, J., Kim, J.-h., Kuhlen, M., Xu, H., Goldbaum, N., Hummels, C., Kritsuk, A. G., Tasker, E., Skory, S., Simpson, C. M., Hahn, O., Oishi, J. S., So, G. C., Zhao, F., Cen, R., & **Li, Y.**, submitted to ApJ (arXiv:1307.2265).

Yuan Li, & Greg L. Bryan, 2012, "Simulating the Cooling Flow of Cool-core Clusters", ApJ, 747, 26.

Yuan Li, Aigen Li & D.M. Wei, 2008, "Determining the Dust Extinction of Gamma-ray Burst Host Galaxies: A Direct Method Based on Optical and X-ray Photometry", ApJ, 678, 1136.

Selected Conference Presentations

Poster: "AGN Feedback and Cold Filaments in Cool-Core Clusters", Massive Black Holes: Birth, Growth and Impact, Santa Barbara, CA (August 2013).

Talk: "Simulating the Cooling Flow and AGN Feedback of Cool-Core Clusters", Special Session "Cosmic Evolution of Groups and Clusters" of IAU General Assembly, Beijing, China (August 2012).

Yuan Li, & Greg L. Bryan, 2012, "Simulating the Cooling Flow of Cool-core Clusters", American Astronomical Society, AAS Meeting #219, #338.18 (Jan 2012).

Talk: "Simulating the Cooling Flow of Cool-core Clusters", Chandra Science Workshop on Structure in Clusters and Groups of Galaxies, Boston, MA (July 2011).

Y. Li, D. Schiminovich "Galaxy Luminosity Function & Star-forming Sequence vs. Redshift", American Astronomical Society, AAS Meeting #215, #435.03; Bulletin of the American Astronomical Society, Vol. 42, p.379 (2010).

Y. Li, Aigen Li & D.M. Wei "Determining the Dust Extinction of Gamma-ray Burst Host Galaxies", 2008 Nanjing Gamma-ray Burst Conference, AIP Conference Proceedings, Volume 1065, pp. 123-126 (2008).

Teaching

Head TA of Department of Astronomy and Astrophysics, Columbia University, 2011 – 2012.
Oversaw all the Astronomy Lab courses (Columbia courses C1903 & C1904) and the lab instructors, including organizing registered students into lab sections, monitoring the curriculum in each lab section, arranging and chairing regular teaching meetings of all of the lab instructors and assistant instructors, and training graduate students in the use of the observatory equipment.

Instructor of Columbia courses C1903 (Astronomy Lab I)—"Earth, Moon & Planets" & C1904 (Astronomy Lab II)—"Beyond the Solar System", 2008 – 2011.

Outreach

Volunteer and lecturer of Columbia Astronomy Public Outreach Program, including "Public Lectures and Stargazing Nights", "Family Astro", and "Sidewalk Astronomy in Harlem", 2008 – Present.

Lecturer of Middle School Outreach Program in New York, 2011 – Present.

Scientific and Departmental Activities

2010 – Present: Junior member of American Astronomical Society (AAS)

2012: Member of graduate school admission committee, Department of Astronomy and Astrophysics, Columbia University. Served along with four faculty on the Committee and helped organize the visits of prospective students.

2011 & 2012: Summer Journal Club organizer, Department of Astronomy and Astrophysics, Columbia University.

Referees

Prof. Greg L. Bryan
Department of Astronomy and Astrophysics, Columbia University
Email: gbryan@astro.columbia.edu
Phone: (212) 854-6837

Prof. Mary E. Putman
Department of Astronomy and Astrophysics, Columbia University
Email: mputman@astro.columbia.edu
Phone: (212) 854-6831

Prof. Zoltan Haiman
Department of Astronomy and Astrophysics, Columbia University
Email: zoltan@astro.columbia.edu
Phone: (212) 854-6822

Prof. David Schiminovich
Department of Astronomy and Astrophysics, Columbia University
Email: ds@astro.columbia.edu
Phone: (212) 854-7819