

*Curriculum Vitae*  
**Suchetana Chatterjee**

Postdoctoral Fellow, Department of Physics and Astronomy, University of Wyoming  
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Date of Birth: September 21st, 1979  
Nationality: Indian

**Education**

1. University of Pittsburgh, Pittsburgh, PA: Ph.D. in Physics, Sept 2003 - Aug 2009  
Thesis: *The Sunyaev-Zeldovich Effect as a Probe of Black Hole Feedback*  
Advisor: Dr. Arthur Kosowsky
2. Indian Institute of Technology, Kanpur, India: M.Sc. in Physics, May 2003
3. Presidency College, Calcutta, India: B.Sc. in Physics (Honors) with Statistics and Mathematics, May 2001

**Employment**

1. Postdoctoral Fellow, Department of Physics and Astronomy, University of Wyoming, May 2012-Present.
2. Postdoctoral Fellow, Yale Center for Astronomy and Astrophysics, Yale University, Visiting Scholar, Department of Physics and Astronomy, University of Pittsburgh, Sep 2011- Apr 2012.
3. Postdoctoral Associate, Yale Center for Astronomy and Astrophysics, Yale University, Sep 2009-Aug 2011.

**Awards and Fellowships**

1. Andrew Mellon Predoctoral Fellowship, University of Pittsburgh, 2008.
2. Zaccus Daniel Fellowship, University of Pittsburgh 2007.
3. Winner of the Thomas Lain Essay Competition, Department of Physics & Astronomy, University of Pittsburgh, 2007 .
4. Mary E. Warga Predoctoral Fellowship, University of Pittsburgh, 2003.
5. National Eligibility Test (CSIR Level) qualified, University Grants Commission, Government of India, 2003.
6. HRI summer research fellowship, Harish Chandra Research Institute, Allahabad, 2002.
7. Sukhamay Chakraborty Memorial Award, Presidency College, Calcutta, 2000.
8. National Scholarships for secondary (1996) and higher secondary (1998) examinations, Government of India.

## Research Interests

1. Anisotropies in the cosmic microwave background, the Sunyaev-Zeldovich Effect.
2. Active galactic nuclei and galaxy evolution, halo occupation distribution and clustering of active galactic nuclei.
3. Cosmological Simulations and Multi-wavelength AGN surveys.

## Refereed Publications

1. “A Direct Measurement of the Mean Occupation Function of Quasars: Breaking Degeneracy of Halo Occupation Distribution Models”, **S. Chatterjee**, M. Nguyen, A. Myers, & Z. Zheng, **Astrophysical Journal**, *submitted*, (2013). arxiv eprint 1309.3607C
2. “X-ray Surface Brightness Profiles of Active Galactic Nuclei in the Extended Groth Strip: Implications for AGN Feedback”, **S. Chatterjee**, J. A. Newman, T. Jeltema, A. D. Myers, J. Aird, A. Coil, M. Cooper, A. Finoguneov, E. Laird, A. Montero-Dorta, K. Nandra, C. Willmer, & R. Yan, **Astrophysical Journal**, *submitted*, (2013). arxiv eprint 1310.0836C
3. “The Halo Occupation Distribution of X-ray-bright Active Galactic Nuclei: A Comparison with Luminous Quasars”, J. Richardson, **S. Chatterjee**, Z. Zheng, A. Myers, & R. Hickox, **Astrophysical Journal**, *774, 143*, (2013).
4. “The Halo Occupation Distribution of SDSS Quasars”, J. Richardson, Z. Zheng, **S. Chatterjee**, D. Nagai, & Y. Shen, **Astrophysical Journal**, *755, 30*, (2012).
5. “The Halo Occupation Distribution of Active Galactic Nuclei”, **S. Chatterjee**, C. Degraf, J. Richardson, Z. Zheng, D. Nagai, & T. DiMatteo, **Monthly Notices of the Royal Astronomical Society**, *419, 2657* (2012).
6. “The Halo Occupation Distribution of Black Holes”, C. Degraf, M. Oborski, T. DiMatteo, **S. Chatterjee**, D. Nagai, J. Richardson, & Z. Zheng, **Monthly Notices of the Royal Astronomical Society**, *416, 1591* (2011).
7. “Tentative Detection of Quasar Feedback from WMAP and SDSS Cross Correlation”, **S. Chatterjee**, S. Ho, J. A. Newman, & A. Kosowsky, **Astrophysical Journal**, *720, 299* (2010).
8. “Simulations of the Sunyaev-Zeldovich Effect from Quasars”, **S. Chatterjee**, T. Di Matteo, A. Kosowsky, & I. Pelupessy, **Monthly Notices of the Royal Astronomical Society**, *390, 535* (2008).
9. “The Sunyaev-Zeldovich Effect from Quasar Feedback”, **S. Chatterjee** & A. Kosowsky, **Astrophysical Journal Letters** *661, 113* (2007).

## Drafts in Preparation

1. “X-ray Emissions in Normal Galaxies at  $z \simeq 1$ : Characterizing the Source Population”, **S. Chatterjee**, J. A. Newman, T. Jeltema, A. D. Myers, J. Aird, K. Bundy, C. Conselice, M. Cooper, E. Laird, A. Montero-Dorta, K. Nandra, & C. Willmer (draft available on request).

2. “Feedback from Active Galactic Nuclei in the Extended Groth Strip: X-ray versus Optical Sample”, A. Bhattacharjee, **S. Chatterjee**, J. A. Newman, T. Jeltema, A. D. Myers, J. Aird, A. Coil, M. Cooper, E. Laird, A. Montero-Dorta, K. Nandra, C. Willmer, & R. Yan (draft available on request).
3. ‘A Direct Measurement of the Mean Occupation Function of Luminous Red Galaxies’, M. Nguyen, **S. Chatterjee**, A. Myers, & Z. Zheng

### Conference Proceedings

1. “The Halo Occupation Distribution of X-ray-bright Active Galactic Nuclei: A Comparison with Luminous Quasars ”, **S. Chatterjee**, J. Richardson, Z. Zheng, A. Myers, & R. Hickox, **Bulletin of the American Physical Society**, APR.K2, 35, (2013).
2. “A Direct Measurement of the Mean Occupation Function of Quasars: Breaking Degeneracy of Halo Occupation Distribution Models ”, M. Nguyen, **S. Chatterjee** & A. Myers, **Bulletin of the American Physical Society**, APR.K2, 36, (2013).
3. “A Direct Measurement of the Quasar Mean Occupation Function ”, M. Nguyen, **S. Chatterjee** & A. Myers, **Bulletin of the American Astronomical Society**, 221, 430.06, (2013).
4. “Reverberation Mapping of Radio-Loud Active Galactic Nuclei ”, A. Bhattacharjee, M. Brotherton, M. DiPompeo, J. Runnoe, S. Cales, D. Cook, S. Nissim, S. Staudaher, R. Smullen, G. Long, A. Miller, R. Chatterjee, **S. Chatterjee**, M. Lundquist, S. Eftekerzadeh, & E. Woods, **Bulletin of the American Astronomical Society**, 221, 422.04, (2013).
5. “The Halo Occupation of SDSS Quasars”, J. Richardson, Z. Zheng, **S. Chatterjee**, D. Nagai, & Y. Shen, **Bulletin of the American Astronomical Society**, 220, 332.04, (2012).
6. “The Halo Occupation Distribution of Active Galactic Nuclei”, **S. Chatterjee**, D. Nagai, J. Richardson, Z. Zheng, C. Degraf, & T. DiMatteo, **Bulletin of the American Astronomical Society**, 43, 120.05, (2011).
7. “The Halo Occupation Distribution of Black Holes”, , C. Degraf, M. Oborski, T. DiMatteo, **S. Chatterjee**, D. Nagai, J. Richardson, & Z. Zheng, **Bulletin of the American Astronomical Society**, 43, 229.01, (2011).
8. “The Sunyaev-Zeldovich Effect As a Probe of Black Hole Feedback”, **S. Chatterjee**, **Bulletin of the American Astronomical Society**, 41, 328, (2009).
9. “Sunyaev-Zeldovich Effect from Active Galactic Nuclei”, **S. Chatterjee** & A. Kosowsky, **Bulletin of the American Astronomical Society**, 38, 1210, (2007).

### Teaching Experience : Classes

1. Basics of Space Flight (Astronomy 0087), University of Pittsburgh, Spring 2009. Recitation instructor for non-science majors.
2. Basics of Space Flight (Astronomy 0087), University of Pittsburgh, Summer 2007. Recitation instructor for non-science majors.

3. Basic Physics for Science & Engineering 2 (Physics 0175), University of Pittsburgh, Spring 2005. Recitation instructor for calculus-based introductory physics course.
4. Basic Physics for Science & Engineering 1 (Physics 0174), University of Pittsburgh, Fall 2004. Recitation instructor for calculus-based introductory physics course.
5. Stars, Galaxies and Cosmology (Astronomy 089), University of Pittsburgh, Fall 2003. Recitation instructor for non-science majors.

### Teaching Experience : Others

1. Teaching of Physics (Physics 2997), University of Pittsburgh, Fall 2003. Completed one-credit course on basic physics teaching.
2. Designed self-contained tutorials for advanced undergraduate quantum mechanics course (Advisor: Dr. Chandralekha Singh), University of Pittsburgh, Summer 2005.

### Students Supervised

1. Sareh Eftekharzadeh, *Measuring Halo Occupation Distribution of Redshift 2 Quasars*, PhD Thesis Project, University of Wyoming, Summer 2013-present
2. Anirban Bhattacharjee, *Studying AGN Feedback at High Redshift Using X-ray Surface Brightness Profiles*, PhD Thesis Project, University of Wyoming, Spring 2013-present
3. Ian Vorbach, *AGN Evolution in Galaxy Clusters*, Senior Thesis, Yale University, Fall 2012 .
4. My Nguyen, *Mean Occupation Function of Quasars and Luminous Red Galaxies* , PhD Thesis Project, University of Wyoming, Fall 2012-present.
5. Jonathan Richardson, *The Halo Occupation Distribution of X-ray AGN*, Graduate Research Project, University of Chicago, Fall 2012 - present  
Jonathan Richardson, *The Halo Occupation Distribution of SDSS Quasars*, Senior Thesis, Yale University, Fall 2009 - Summer 2011.
6. Pearson Miller, *Visualization of Cosmological Simulations*, Freshman Project, Yale University, Fall 2010 - Spring 2011.
7. Adam Solomon, *Detecting the Sunyaev-Zeldovich Effect in the Wilkinson Microwave Anisotropy Probe Data*, Senior Thesis, Yale University, Fall 2009 - Spring 2010.
8. Madeleine Seigel, Independent Research, University of Pittsburgh, 2008.
9. Jonathan las Fargeas (MIT), summer NSF Research Experience for Undergraduate student, University of Pittsburgh, 2007.

### Professional Activities

1. Co-Investigator, *Modeling AGN Feedback in Cosmological Simulations*, NASA Astrophysics Theory (2010), PI: Daisuke Nagai, Yale University.
2. Referee, Monthly Notices of the Royal Astronomical Society.
3. Member, American Astronomical Society.

4. Member, American Physical Society.
5. Associated member of the Deep Evolutionary Exploratory Probe (DEEP) survey.
6. Former Member of the Small and Moderate Aperture Research Telescope System (SMARTS) Observing Queue Team.
7. Former Member of the Atacama Cosmology Telescope (ACT) Team
8. Co-author on the astro decadal survey papers.
  - a) “Observing the Evolution of the Universe”, J. Aguirre, A. Amblard, A. Ashoorioon, C. Baccigalupi, A. Balbi, J. Bartlett, N. Bartolo, D. Benford, M. Birkinshaw, J. Bock, D. Bond, J. Borrill, F. Bouchet, M. Bridges, E. Bunn, E. Calabrese, C. Cantalupo, A. Caramete, C. Carbone, **S. Chatterjee**, S. Church, D. Chuss, C. Contaldi, A. Cooray and 153 more co-authors, 2009, White paper for the Astronomy Decadal Survey, arXiv:0903.0902.
  - b) “The Origin of the Universe as Revealed Through the Polarization of the Cosmic Microwave Background”, S. Dodelson et al., 2009, White paper for the Astronomy Decadal Survey, arXiv:0902.3796.
9. Participant at the “Southern Cosmology Survey Summer School”, Princeton University, June 12–16, (2006).
10. Participant at the “Astrostatistics Summer School”, Pennsylvania State University, June 6–10, (2006).

### Contributed and Invited Presentations

1. Contributed Poster, “A Direct Measurement of the Mean Occupation Function of Quasars: Breaking Degeneracy of Halo Occupation Distribution Models”, Fifty Years of Quasars, Caltech, Sep 9–10, (2013).
2. Contributed Talk, “X-ray Surface Brightness Profiles of Active Galactic Nuclei in the Extended Groth Strip: Implications for AGN Feedback”, AEGIS collaboration meeting, University of Kentucky, Aug 25, (2013).
3. Contributed Poster, “The Halo Occupation Distribution of X-ray-bright Active Galactic Nuclei: A Comparison with Luminous Quasars ”, Massive Black Holes: Birth, Growth and Impact, KITP, Santa Barbara, Aug 5–9, (2013).
4. Contributed talk, “ The Halo Occupation Distribution of X-ray-bright Active Galactic Nuclei: A Comparison with Luminous Quasars ”, 23rd New England Regional Quasar and AGN Meeting, MIT Haystack Observatory, May 21, (2013).
5. Invited Talk, “Probing Structure Formation in the Universe: New Frontiers and Future Challenges”, Indian Institute of Technology, Guwahati, June 29, (2012).
6. Invited Talk, “Probing Structure Formation in the Universe: New Frontiers and Future Challenges”, Indian Institute of Technology, Kanpur, June 25, (2012).
7. Contributed talk, “The Halo Occupation Distribution of SDSS Quasars”, 22nd New England Regional Quasar and AGN Meeting, MIT, May 24, (2012).
8. Contributed Poster, “The Halo Occupation Distribution of Active Galactic Nuclei”, Tristate Astronomy Conference, City University of New York, Oct 28, (2011).

9. Invited Talk, “Cosmological Evolution of Supermassive Black Holes”, Indian Institute of Science, Bangalore, Aug 03, (2011).
10. Invited Talk, “Cosmological Evolution of Supermassive Black Holes”, Indian Institute of Astrophysics, Bangalore, Aug 02, (2011).
11. Invited Talk, “Cosmological Evolution of Supermassive Black Holes”, Tata Institute of Fundamental Research, Mumbai, July 28, (2011).
12. Invited Talk, “Cosmological Simulations of Structure Formation: New Frontiers and Future Challenges”, Indian Institute of Technology, Mumbai, July 27, (2011).
13. Invited Talk, “Cosmological Evolution of Supermassive Black Holes”, Inter University Center for Astronomy and Astrophysics, Pune, July 25, (2011).
14. Invited Talk, “Cosmological Evolution of Supermassive Black Holes”, National Center for Radio Astrophysics, Pune, July 22, (2011).
15. Invited Talk, “Cosmological Simulations of Structure Formation: New Frontiers and Future Challenges”, Indian Institute of Science Education and Research, Pune, July 21, (2011).
16. Contributed talk, “The Halo Occupation Distribution of Active Galactic Nuclei”, AEGIS collaboration meeting, University of Pittsburgh, June 22–24, (2011).
17. Contributed talk, “The Halo Occupation Distribution of Active Galactic Nuclei”, 21st New England Regional Quasar and AGN Meeting, Yale University, May 19, (2011).
18. Invited Talk, “The Sunyaev-Zeldovich Effect As a Probe of Black Hole Feedback”, MIT Kavli Institute for Astrophysics and Space Research, March 05, (2009).
19. Contributed Poster, Science 2008, University of Pittsburgh, Pittsburgh, Oct 2–3, (2008).
20. Invited Talk, “The Sunyaev-Zeldovich Effect as a Probe of Black Hole Feedback”, Raman Research Institute, Bangalore, June 13, (2008).
21. Invited Talk, “The Sunyaev-Zeldovich Effect as a Probe of Black Hole Feedback”, Inter University Centre for Astronomy And Astrophysics, Pune, June 11, (2008).
22. Contributed Poster “Simulated Sunyaev-Zeldovich Maps From Black Hole Feedback”, 21cm Cosmology Conference, Center for Astrophysics, Cambridge, May 12–15, (2008).
23. Contributed Poster, Science 2007, University of Pittsburgh, Pittsburgh, Oct 11–12, (2007).
24. Contributed talk, “Sunyaev-Zeldovich Effect from Quasar Feedback”, Atacama Cosmology Telescope workshop, Princeton University, August 8–10, (2007).
25. Invited Talk, “Anisotropies in the Cosmic Microwave Background”, Saha Institute of Nuclear Physics, Calcutta, May 28, (2007).

### **Organisational Services**

1. Coordinator of Weekly Astronomy Journal Club, Department of Physics and Astronomy, University of Pittsburgh, 2007–2008.
2. Assistant Queue Manager for the 1.3m Small and Moderate Aperture Research Telescope System Observing Queue Team

## Educational Outreach

1. Public Lecture to B.Tech and M.sc students at Indian Institute of Technology Mumbai, July 30, 2011, “Observation Confronts theory: Is all our understanding of theoretical Physics account for only 4% of the Universe??”
2. Developing Visualizations for the Leitner Family Observatory, Yale University, Fall 2009
3. Science Volunteer, SciTech festival, Carnegie Science Center, Fall 2007. Science demonstration to middle school students from the Pittsburgh area.
4. Science Volunteer, Investing Now, University of Pittsburgh, Fall 2006. Demonstrating optical experiments to 10th grade students from the local schools in Pittsburgh area.
5. Science Volunteer, Allegheny Observatory Open House, Fall 2007, Fall 2005.