

**Present Address:**

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School of Physics and Astronomy  
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**Education:**

Ph.D., Astronomy, Univ. of Washington, Seattle, July 1995 (Advisor: Prof. C. J. Hogan)  
M.A., Astronomy, University of Washington, Seattle, April 1990  
B.A. with Honors, Astrophysics, Princeton Univ., June 1988 (Advisor: Prof. B. Paczyński)

**Employment History:**

09.2005—present: Associate Professor, Astronomy Dept., Univ. of Minnesota, MN, USA  
08.2000—08.2005: Assistant Professor, Astronomy Dept., Univ. of Minnesota, MN, USA  
10.1998—10.1999: Postdoctoral Fellow, Univ. of Victoria, B.C., Canada  
10.1995—09.1998: PPARC Theory Postdoctoral Fellow, Inst. of Astronomy, Cambridge, UK  
10.1988—07.1995: Research and Teaching Assnt as a grad student at Univ. of Washington

**Publications (2000-present):**

*Extragalactic Radio Sources and the WMAP Cold Spot*

L. Rudnick, S. Brown, L.L.R. Williams. 2007, ApJ, 671, 40

*Meso-structure in three strong-lensing systems*

P. Saha, L.L.R. Williams, I. Ferreras. 2007, ApJ, 663, 29

*Velocity Distributions from Nonextensive Thermodynamics*

E.I. Barnes, L.L.R. Williams, A. Babul, J.J. Dalcanton. 2007, ApJ, 655, 847

*Density Profiles of Collisionless Equilibria. II. Anisotropic Spherical Systems*

E.I. Barnes, L.L.R. Williams, A. Babul, J.J. Dalcanton. 2007, ApJ, 654, 814

*Gravitational Lensing Model Degeneracies: Is Steepness All-Important?*

P. Saha, L.L.R. Williams. 2006, ApJ, 653, 936

*Two Strong-Lensing Clusters Confront Universal Dark Matter Profiles*

P. Saha, J.I. Read, L.L.R. Williams. 2006, ApJ, 652, L5

*The Hubble Time Inferred from 10 Time Delay Lenses*

P. Saha, J. Coles, A.V. Macchio, L.L.R. Williams. 2006, ApJ, 650, L17

*Density Profiles of Collisionless Equilibria. I. Spherical Isotropic Systems*

E.I. Barnes, L.L.R. Williams, A. Babul, J.J. Dalcanton. 2006, ApJ, 643, 797

*Semianalytical Dark Matter Halos and the Jeans Equation*

C.G. Austin, L.L.R. Williams, E.I. Barnes, A. Babul, J.J. Dalcanton. 2005, ApJ, 634, 756

*Scale Lengths in Dark Matter Halos*

E.I. Barnes, L.L.R. Williams, A. Babul, J.J. Dalcanton. 2005, ApJ, 634, 775

*Galaxy-Quasar Correlations between APM Galaxies and Hamburg-ESO QSOs*

J.G. Nollenberg, L.L.R. Williams, 2005, ApJ, 634, 793

*Stellar and total mass in early-type lensing galaxies*  
I. Ferreras, P. Saha, L.L.R. Williams. 2005, ApJ, 623, L5

*Models of the giant quadruple quasar SDSS J1004+4112*  
L.L.R. Williams, P. Saha. 2004, AJ, 128, 2631

*Weak lensing of the high redshift SNIa sample*  
L.L.R. Williams, J. Song. 2004, MNRAS, 351, 1387

*Investigating the Origins of Dark Matter Halo Density Profiles*  
L.L.R. Williams, A. Babul, J.J. Dalcanton. 2004, ApJ, 604, 18

*A portable modeler of lensed quasars*  
P. Saha, L.L.R. Williams. 2004, AJ, 127, 2604

*Is B1422+231 a Golden Lens?*  
S. Raychaudhury, P. Saha, L.L.R. Williams. 2003, AJ, 126, 29

*Determination of reddening and extinction due to dust in APM galaxy clusters*  
J.G. Nollenberg, L.L.R. Williams, S.J. Maddox. 2003, AJ, 125, 2927

*Qualitative Theory for Lensed QSOs*  
P.S. Saha, L.L.R. Williams. 2003, AJ, 125, 2769

*Angular Distribution of Gamma-ray Bursts and Weak Lensing*  
L.L.R. Williams, N. Frey. 2002, ApJ, 583, 594

*Beware the Non-uniqueness of Einstein Rings*  
P. Saha, & L.L.R. Williams. 2001, AJ, 122, 585

### **Colloquia and Seminars:**

Dept. of Physics, Univ. of North Carolina, Chapel Hill, NC, November 27, 2007  
Title: *Astrophysical Probes of the Large Scale Structure and Implications for the early Universe* ■

Metropolitan State University, St. Paul, MN, September 18, 2007  
Title: *Imaging Dark Matter with Gravitational Lensing*

Dept. of Physics, Indiana University, Bloomington, IN, February 7, 2007  
Title: *Imaging Dark Matter with Gravitational Lensing*

Dept. of Physics, St. Olaf College, Northfield, MN, May 6, 2006  
Title: *Imaging Dark Matter with Gravitational Lensing*

Dept. of Physics, Macalester College, St. Paul, MN, March 23, 2006  
Title: *Imaging Dark Matter with Gravitational Lensing*

Dept. of Physics, Univ. of North Dakota, Grand Forks, November 18, 2005  
Title: *Imaging Dark Matter with Gravitational Lensing*

Dept. of Physics, New York Univ., December 3, 2004  
Title: *Analytical Exploration of Dark Matter Halos of Galaxies*

Dept. of Astronomy, New Mexico State Univ., November 19, 2004  
Title: *Analytical Exploration of Dark Matter Halos of Galaxies*

Physics Dept. U Minnesota, October 13, 2004  
Title: *Formation and Evolution of Galaxies - The Dark Matter Side of the Story*

Dept. of Astronomy, Penn State Univ., April 28, 2004  
Title: *Dark Matter Halos of Galaxies: How Did They Form, and What Accounts for Their Density Distribution?*

Dept. of Astronomy, Univ. of Arizona, Steward Obs., Tucson, AZ, December 4, 2003  
Title: *Weak Lensing of Point Sources: QSOs, SNIa, and GRBs*

Dept. of Physics & Astronomy, Univ. of Notre Dame, IN, November 4, 2003  
Title: *Weak Lensing of Point Sources: QSOs, SNIa, and GRBs*

Dept. of Astronomy, Univ. of Wisconsin, Madison, WI, December 4, 2001  
Title: *Formation and Evolution of Dark Matter Halos on Galaxies*

Dept. of Astronomy, Univ. of Minnesota, Minneapolis, MN, February 2, 2001  
Title: *Analytical Approach to the Formation and Evolution of Dark Matter Halos*

### Meetings:

“Dark Matter Workshop”

Niels Bohr Summer Institute, Copenhagen, Denmark, August 20-24, 2007

Invited talk: *Stable Equilibria of Self-gravitating Collisionless Dark Matter Halos*

“Dark Galaxies and Lost Baryons”, IAU244 conference proceedings

I. Ferreras, P. Saha, L.L.R. Williams & S. Burles.

Poster: *Mapping the distribution of luminous and dark matter in strong lensing galaxies*

“Gravitational Lensing Working Group”, Research Triangle Park, NC, February 24-26, 2006  
An informal working group meeting organized by SAMSI

“SAMSI Workshop on Astrostatistics”, Research Triangle Park, NC, January 22-25, 2006  
Workshop organized by the Statistical and Applied Mathematical Sciences Institute (SAMSI)  
Invited talk: *Gravitational Lensing: Mass Reconstruction Methods and Results*

“Dark Matter Substructure”, MIT, Cambridge, MA, September 30-October 2 2005  
Workshop organized by the MIT-Kavli Institute  
Invited talk: *Observations of Substructure In Galaxy Clusters*

“Gravitational Lensing in the Kerr Spacetime Geometry”, Palo Alto, CA, July 2005  
Workshop organized by National Science Foundation and American Institute of Mathematics  
Invited participant

AAS meeting #206, Minneapolis, May-June 2005  
Invited talk: “Imaging Dark Matter with Gravitational Lensing”

“Gravitational Lensing, Dark Energy and Dark Matter”, Ohio State University,  
Columbus, Ohio, January 5-7 2005 2004  
Talk: *Strong Lensing Constraints on the Properties of Cluster Galaxies*

“Baryons in Dark Matter Halos”, Istria, Croatia, October 2004  
Poster: *Strong Lensing Constraints on the Properties of Cluster Galaxies*  
Talk: *Investigating the Origins of Dark Matter Halo Density Profiles*

“Women in Astronomy II: Ten Years After”, Caltech, Pasadena, CA, June 2003

American Astronomical Society, Albuquerque, NM, June 2002  
Poster: *Analytical Approach Towards Formation of Dark Matter Halos of Galaxies*

“Gravitational Lensing”, Ringberg Castle, Bavaria, Germany, July 2002  
Talk: *Weak Magnification Lensing of Point Sources*