

JESSICA SAWYER WARREN

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Education

- **Rutgers University**—May 2006
Ph.D. Candidate in Astrophysics
Thesis: X-ray Spectral Variations in Supernova Remnants
Advisor: John P. Hughes
- **Vassar College**—May 1999
A.B. in Physics and Astronomy
Honors in Physics, Astronomy, and General Honors, Minor: French

Award and Fellowshipss

- **2003** Richard J. Plano Outstanding Teaching Assistant Award, Rutgers University
- **2000–2** Rutgers Graduate School Excellence Fellowship
- **1999** Member, Phi Beta Kappa
- **1999** Lucy Kellogg English Physics Prize, Vassar College
- **1998** Ethel Hickox Pollard Memorial Physics Award, Vassar College

Teaching Experience

- **Teaching Assistant**—“Physics for the Sciences”, Rutgers University, 2002-5
Recitation and laboratory instructor for algebra-based introductory-level course for science majors
- **Private Tutor**—Connecticut and New Jersey, 1999–2005
Tutor students in high school and introductory college physics and calculus
- **Instructor**—Douglass Science Weekend Academy, November 2004
Designed and taught mini-lab on Electricity and Magnetism for high school girls
- **Participant**—“Introduction to College Teaching”, Rutgers University, 2004
Attended no-credit course for graduate students interested in teaching in higher education
- **Presenter**—Douglass Project for Rutgers Women in Math, Science & Engineering, August 2003 & 2005
Conducted observatory tours and answered questions regarding physics and astronomy coursework and careers
- **Intern**—FDR High School Regents Physics Class, Hyde Park, NY, 1999
Observed class, helped grade papers and tutor students, aided teacher with demonstrations, guided students on field trip to Vassar College to make holograms
- **Physics Intern**—Vassar College, 1998–9
Tutored introductory astronomy students and graded problem sets, conducted observatory tours for varying age and special interest groups
- **Instructor**—Marist College Center for Lifetime Study, 1999
Prepared and taught supplementary material for a video lecture course on astronomy

Activities

- **Women in Physics**—Rutgers University, 2003–present
Attend lunches and presentations with female faculty, postdocs, and students, discuss issues affecting women in physics
- **Journal Club**—Rutgers University, 2001–present
Present a summary and discussion of a recent article or topic in astronomy, organized other presenters (2004-5)
- **Physics Graduate Student Organization**—Rutgers University, 2001–5
Mentored new graduate students
- **Graduate Student Life Committee**—Rutgers University, 2001–2
Attended meetings with faculty, gathered graduate student opinions and concerns to advise faculty at meetings
- **Volunteer**—Science Center of Connecticut, 1999–2000
Assisted in slide library, organized and identified slides for planetarium shows
- **Vassarion yearbook**—Vassar College, 1996–9
Positions included Activities Editor, Editor-in-Chief, and Academics Editor. Responsibilities included organizing photo sessions, obtaining appropriate copy, planning layout, supervising staff work, and meeting deadlines on a timely basis

Professional Organizations

- **American Astronomical Society** High Energy Astrophysics Division

Proposals Awarded

- **Chandra X-ray Observatory** Cycle 6 Archive Proposal, "A Quantitative Study of Clumping in Young Supernova Remnants", 2004

Refereed Publications

- **Warren, J. S.** et al. "Cosmic Ray Acceleration at the Forward Shock in Tycho's Supernova Remnant: Evidence from *Chandra* X-ray Observations" 2005, *Astrophysical Journal*, in press
- Hwang, U. et al. "A Million Second *Chandra* View of Cassiopeia A" 2004, *Astrophysical Journal*, 615, L117
- **Warren, J. S.** & Hughes, J. P. "Raising the Dead: Clues to Type Ia Supernova Physics from the Remnant 0509–67.5" 2004, *Astrophysical Journal*, 608, 261
- Park, S., Hughes, J. P., Slane, P. O., Burrows, D., **Warren, J. S.**, Garmire, G. & Nousek, J. "Detection of Magnesium-rich Ejecta in the Middle-aged Supernova Remnant N49B" 2003, *Astrophysical Journal*, 592, L41
- **Warren, J. S.**, Hughes, J. P. & Slane, P. O. "Revealing New Physical Structures in the Supernova Remnant N63A through *Chandra* Imaging Spectroscopy" 2003, *Astrophysical Journal*, 583, 260
- Lombardi, J. C., Jr., **Warren, J. S.**, Rasio, F. A., Sills, A. & Warren, A. R. "Stellar Collisions and the Interior Structure of Blue Stragglers" 2002, *Astrophysical Journal*, 568, 939
- Elmegreen, D. M., Chromey, F. R., **Sawyer, J. E.** & Reinfeld, E. L. "Near-Infrared Observations of Hot Spots in the Circumnuclear Rings of NGC 2997 and NGC 6951" 1999, *Astronomical Journal*, 118, 777

- **Sawyer, J. E.** & Benson, P. J. “A New Position and Period for CY Draconis” 1997, *Information Bulletin on Variable Stars*, 4508, 1

Presentations

- **Warren, J. S.** & Hughes, J. P. 2004, AAS/High Energy Astrophysics Division, 8, “A Principal Component Analysis of X-ray Spectral Variations in Four Galactic SNRs”
- **Warren, J. S.**, Hughes, J. P., & Slane, P. 2003, 4 Years of Science with *Chandra*, “The Type Ia Supernova Remnant 0509–67.5”
- **Warren, J. S.**, Hughes, J. P., Slane, P., Burrows, D. Nousek, J. 2002, AAS, 200, 150, “X-ray Spectral Variations in the Supernova Remnant N63A”
- **Sawyer, J. E.**, 1998, Proc. of Undergraduate Research Symp. (KNAC), 108, “Hotspots in the Nucleus of NGC 2997”
- **Sawyer, J. E.**, 1997, Proc. of Undergraduate Research Symp. (KNAC), 99, “Getting to Know CY Draconis: A Determination of Period and Position”