VITA: PAUL J. GREEN

Harvard-Smithsonian Center for Astrophysics, MS-4
60 Garden St., Cambridge, MA 02138 Phone: 617-495-7057
pgreen@cfa.harvard.edu http://hea-www.harvard.edu/~pgreen/

EDUCATION:

Ph.D. in Physics, 1992, University of Washington
- "Faint High Latitude Carbon Stars", Advisor: Bruce Margon

M.S. in Physics, 1989, University of Washington
B.A. in Physics, 1981, Oberlin College

RESEARCH & EMPLOYMENT:

Astrophysicist, Chandra Director's Office, Smithsonian Astrophysical Observatory, 1996-2003
Astrophysicist, Chandra Mission Planning, Smithsonian Astrophysical Observatory, 1996-2003
NASA Long Term Space Astrophysics Awardee, 1998-2003
Hubble Postdoctoral Fellow, Harvard-Smithsonian Center for Astrophysics, 1993 – 1995
NSF-NATO Postdoctoral Fellow in Science and Engineering, Fall 1992
Research Assistant, University of Washington, 1987 – 1992

EDUCATION-RELATED EXPERIENCE:

Organizing Committee, *Cosmos in the Classroom Symposium*, Tufts U., 2004
Author, *Peer Instruction for Astronomy*
- Prentice-Hall 2002 Instructor's Guide
- Coordinator, ConcepTest Web Library, 1997-

Guest lecturer
- Introductory College Astronomy at Tufts & Harvard U.
- CfA Public Observatory Nights
- Boston-area K-12 classes

Ph.D. Thesis advisor, John Silverman, 2001–2004
Chair/Member SAO Predoctoral Research Committees
- Joanna Kuraszkiewicz, 1996-2000
- Malgosia Sobolewska 2003

Project Advisor, NASA REU Summer Intern Program, 1994, 2002, 2003
Astronomy Teaching Assistant, U.WA, 1986
Physics Teaching Assistant, Physics Ed. Group (w/ Lillian McDermott), U.Wa, 1984 – 1986
Secondary Physics Teacher (in French), Peace Corps, Togo, West Africa 1982 – 1984

COMMUNITY SERVICE:

SAO Council 2004 -
SAO Predoctoral Program Committee 2004 -
Data Policy Committee, CfA, 200-2002
Editor, Author, Astronomy ConcepTests Web site
Referee for ApJ, AJ, A&A, MNRAS, Astronomy Education Review
TAC panels for NOAO, Chandra

Reviewer for NASA ADP, LTSA, U.S. Civilian Research and Development Foundation (CRDF)

PROFESSIONAL SOCIETIES:
American Astronomical Society
Astronomical Society of the Pacific

PUBLICATIONS

IN REFEREED JOURNALS:

○ J. D. Silverman, P. J. Green, et al. 2005, ApJ, in press (January 1) *Hard X-Ray Emitting Active Galactic Nuclei Selected by the Chandra Multi-Wavelength Project*

○ D. A. Schwartz et al, 2004, ApJL, 605, 105 *Discovery of a Jet-Like Structure at the High Redshift Quasar CXOMP J084128.2+131106*

○ J. Kuraszkewiecz, P. J. Green, D. Michael Crenshaw, Jay Dunn, Karl Forster, Marianne Vestergaard, and Tom L. Aldcroft, 2004, ApJS, 150, 165 *Emission Line Properties of AGN from a post-COSTAR FOS HST Spectral Atlas*

• P. J. Green, T. L. Aldcroft, W. R. Brown and O. Kuhn, 2004, MNRAS, 349, 1261, *HS1216+5032; A Physical Quasar Pair with one Radio-Loud Broad Absorption line Quasar*

• P. J. Green & the ChaMP Collaboration, 2004, ApJS, 150, 43 *The Chandra Multiwavelength Project: Optical Followup of Serendipitous Chandra Sources*

○ D.-W. Kim & the ChaMP Collaboration, 2004 ApJS, 150,19 *The Chandra Multiwavelength Project (ChaMP). I. First X-ray Source Catalog*

○ D.-W. Kim & the ChaMP Collaboration, 2004 ApJ, 600, 59 *The Chandra Multiwavelength Project (ChaMP). II. First Results of X-ray Source Properties*

○ T. L. Aldcroft & P. J. Green, 2003 ApJ, 592, 710 *Lens or Binary? Chandra Observations of the Broad Absorption Line Quasar Pair UM425*

○ J. Kuraszkewiecz & P. J. Green 2003, ApJL, 581, L77 *Evidence for a Strong Abundance Correlation Between Emission and Absorption Lines in AGN*

○ J. Kuraszkewiecz, P. J. Green, K. Forster, T. Aldcroft, I. N. Evans & A. Koratkar 2002, ApJ, 143, 257 *Emission Line Properties of AGN from a pre-COSTAR FOS HST Spectral Atlas*

○ with M. Markevitch, et al. 2003, ApJ, 583, 70, *Chandra Spectra of the Soft X-Ray Diffuse Background*

• P. J. Green, C. Kochanek, A. Siemiginowska, D.-W. Kim, M. Markevitch, J. D. Silverman, A. Dosaj, B. T. Jannuzi, & C. Smith 2002, ApJ, 571, 721, *Chandra Observations of the QSO Pair Q2345+007: Binary Quasar or Massive Dark Lens?*

○ J. D. Silverman, P. J. Green, et al. 2002, ApJL, 569, 1, *Discovery of a* $z = 4.93$*, X-ray selected Quasar by the Chandra Multiwavelength Project (ChamP)*

• P. J. Green, T. L. Aldcroft, S. Mathur, B. J. Wilkes & Martin Elvis 2001, ApJ, 558, 109 *A Chandra Survey of Broad Absorption Line Quasars*

○ with Arav, N. et al. 2001, ApJ, 56, 118 *HST STIS Observations of PG 0946+301: The Highest Quality UV Spectrum of a BALQSO*

○ S. Mathur, G. Matt, P. J. Green, M. Elvis, K. P. Singh 2001, ApJ Letters, 551, 13, *Surprises from a deep ASCA observation of a Broad Absorption Line Quasar PHL 5200*

○ N. Christlieb, P. J. Green, L. Wisotzki, D. Reimers 2001, A&A, 375, 366 *The stellar content of the*

Hamburg/ESO survey. II. A large, homogeneously-selected sample of high latitude carbon stars

• P. J. Green, K. Forster, & J. Kuraszkewiecz 2001, ApJ, 556, 727, *Quasar Evolution and the Baldwin Effect in the Large Bright Quasar Survey*

◦ K. Forster, P. J. Green, T. L. Aldcroft, M. Vestergaard, C. B. Foltz, & P. C. Hewett 2001, ApJS, 134, 35 *Emission Line Properties of the Large Bright Quasar Survey*

◦ with M. Cappi, et al. 2001, ApJ, 548, 624, *Chandra Study of an Overdensity of X-ray Sources Around Two Distant ($z \sim 0.5$) Clusters*

◦ J. D. Silverman, K. Eriksen, P. J. Green, & A. Prestwich, A. 2001, MNRAS, 323, 577, *Unprecedented X-ray Coverage of a Serendipitous Flare Star with ROSAT*

◦ S. Mathur, P. J. Green et al. 2000, ApJ, 533, 79, *Thomson Thick X-ray Absorption in a Broad Absorption Line Quasar PG0946+301*

• P. J. Green, B. Ali, & Ralf Napiwotzki 2000, ApJ, 540, 992 *Cool Companions to Hot White Dwarfs*

◦ with A. Riess, et al. 1999, ApJ, 117, 707, *BVRI Light Curves for 22 Type Ia Supernovae*

◦ R. Napiwotzki, P. J. Green, & R. A. Saffer 1999, ApJ, 517, 399 *A Comparative Study of the Mass Distribution of Extreme Ultraviolet-Selected White Dwarfs*

◦ B. J. Wilkes, J. Kuraszkiewicz, P. J. Green, S. Mathur, & J.C. McDowell 1999, ApJ, **513**, 76, *An Investigation of the Relation between the Spectral Energy Distributions and the Emission lines in Low-Redshift Quasars*

• P. J. Green 1998, ApJ, **498**, 170, *Differences Between the Optical/UV Spectra of X-ray Bright and X-ray Faint QSOs.*

• P. J. Green, T. L. Aldcroft, S. Mathur & Norbert Schartel 1997, ApJ, **484**, 135, *Evidence Against BALS in the X-ray Bright QSO PG 1416–129*

◦ N. Schartel, P. J. Green, S. F. Anderson, P. C. Hewett, Craig B. Foltz, B. Margon, W. Brinkmann, H. Fink, & J. Trümper 1996, MNRAS, **283**, 1015, ROSAT *Soft X-Ray Properties of the Large Bright Quasar Survey: Modeling of Stacked X-ray Spectra.*

• P. J. Green 1996, ApJ, **467**, 61, *The Relationship Between the High Energy Continuum and Emission Lines in QSOs: A Low-Redshift Sample*

• P. J. Green, & S. Mathur 1996, ApJ, **462**, 637, *The Soft X-Ray Properties of Broad Absorption Line QSOs Observed by the* ROSAT *PSPC.*

• P. J. Green, Norbert Schartel, S. F. Anderson, P. C. Hewett, Craig B. Foltz, Henner Fink, Wolfgang Brinkmann, J. Trümper, & B. Margon 1995, ApJ, **450**, 51, *The Soft X-Ray Properties of a Large Optical QSO Sample:* ROSAT *Observations Of the Large Bright Quasar Survey.*

• M. deKool & P. J. Green 1995, ApJ, **449**, 236, *A Model for the Space Density of Dwarf Carbon Stars.*

• P. J. Green, B. Margon, S. F. Anderson, & Kem Cook 1994, ApJ, **434**, 319, *A CCD Survey for Faint, High Latitude Carbon Stars.*

• P. J. Green and B. Margon 1994, ApJ, **423**, 723, *Constraints on the Origin of Dwarf Carbon Stars.*

• P. J. Green, B. Margon, S. F. Anderson, and D. Jack MacConnell 1992, ApJ, **400**, 659, *Carbon Star Luminosity Indicators.*

◦ D. Ingram, P. M. Garnavich, P. J. Green, and P.a Szkody 1992, PASP, **104**, 402, *Photometry and*

Spectroscopy of Nova Herculis 1991.

◦ P. M. Garnavich, A. Noriega-Crespo, and P. J. Green 1992, Rev. Mex. Astr. Astrofis., **23**, 99, *Wide Field Imaging of the Star Forming Region Lynds 1551.*

• P. J. Green, S. F. Anderson, and M. J. Ward 1992, MNRAS, **254**, 30, *A Compilation of Active and Normal Galaxies Observed in Both Infrared and X-Rays.*

• P. J. Green, B. Margon, and D. J. MacConnell 1992, ApJ Letters, **380**, L31, *Three Newly-Recognized Dwarf Carbon Stars.*

• P. J. Green and B. Margon 1990, PASP, **102**, 658, *Spectroscopy of Faint Halo Carbon Stars.*

• P. J. Green, M. Ward, S. F. Anderson, B. Margon, M. H. K. De Grijp, and G. Miley 1989, ApJ, **339**, 93, *Infrared-Selected 'Warm' Galaxies Observed in X-Rays.*

SELECTED OTHER PUBLICATIONS & PRESENTATIONS:

• "The Chandra Multi-wavelength Project (ChaMP):
Results and Prospects" P. J. Green et al. 2003, in *Proceedings of X-ray Surveys, in the light of the new observatories*, 2003, Astronomische Nachrichten, 324, 93

◦ "The Chandra Multiwavelength Project: A Serendipitous X-ray Survey Using Chandra Archival Data" B. J. Wilkes, P. J. Green, R. A. Cameron, D.-W. Kim, M. Birkinshaw, P. Freeman, T. Gaetz, H. Ghosh, J. Grimes, J. Grindlay, B. Jannuzi, V. Kashyap, S. Mathur, D. Morris, A. Mossman, E. Schlegel, J. D. Silverman, C. Smith, P. Smith, D. W. Worall & the ChaMP Collaboration 2001, in *New Visions of the X-ray Universe in the XMM-Newton and Chandra Era*, ESTEC, Noordwijk, The Netherlands, November 2001, ed. F. Jansen

• "Peer Instruction for Astronomy", P. J. Green 2002 (Prentice-Hall: New Jersey)

• "A Chandra Snapshot Survey of Broad Absorption Line Quasars", P. J. Green, T. L. Aldcroft, S. Mathur, B. J. Wilkes & Martin Elvis 2001, Talk: *Mass Outflow in Active Galactic Nuclei*

• "Understanding the Elusive Dwarf Carbon Star," P. J. Green 2000, **Invited Talk**, IAU Symposium 177: *The Carbon Star Phenomenon*, ed. R. F. Wing (Kluwer: Dordrecht), pp 27-35.

• "Star" P. J. Green, 2000, **World Book Encyclopedia** (World Book: Chicago), pp 840-852.

◦ "SEDs vs. Emission-Line Correlations in Low Redshift Quasars", J. Kuraszkiewicz, B. J. Wilkes, P. J. Green, S. Mathur, J.C. McDowell, & Bożena Czerny 1999, in *Proceedings of Quasars as Standard Candles for Cosmology*, eds. J. Baldwin & G. Ferland (San Francisco: Astronomical Society of the Pacific).

• "Carbon Star," P. J. Green, *The McGraw-Hill Encyclopedia of Science and Technology*, (McGraw-Hill: New York), 2000.

• "White Dwarf" P. J. Green, 1998, World Book Encyclopedia (World Book: Chicago).

• "Dark Matter in the Universe," P. J. Green, *The McGraw-Hill 1997 Science Yearbook* , Parker, S. ed., (McGraw-Hill: New York).

• "Dilemma of the Devious Dwarfs," P. J. Green 1994, *The Griffith Observer*, 1995, Vol. 59, 2.

• "Big Bang Theory," P. J. Green 1994, *Encyclopedia of Time*, Macey, S. ed., (Garland: New York), p. 56.

• "X-Ray Universe," P. J. Green 1994, *Encyclopedia of Time*, Macey, S. ed., (Garland: New York), p. 675.

◦ "The X-Ray Properties of a Large, Uniform QSO Sample: *Einstein* Observations of the LBQS," B. Margon, S. Anderson, Xiao-Yi Wu, P. J. Green, and C. Foltz 1992, *Proc. of the MPE Conf. on X-Ray*

Emission from AGN and the Cosmic X-Ray Background, eds. W. Brinkmann and J. Trümper, Garching: Max Planck, p. 81.

- "A CCD Search for Faint High-Latitude Carbon Stars: Dwarfs Among the Giants," P. J. Green, B. Margon, S. F. Anderson, P. M. Garnavich, K. Cook, and D. J. MacConnell, 1992, in *The Stellar Populations of Galaxies*, Proc. I.A.U. Symp. 149, p. 425, Barbuy, B., and Renzini, A. eds., (Kluwer: Dordrecht).
- "The Music of the Spheres," P. J. Green 1991, *The Exploratorium Quarterly*, **15**, 8.