

## Publications in Refereed Journals

- 1: *Variations in the Maxima of Long-Period Variables*, J.P. Harrington, *Astron. J.*, **70**, 569–575 (Oct. 1965).
- 2: *Theoretical H $\beta$  Line Profiles and Related Parameters for Rotating B Stars*, G.W. Collins and J.P. Harrington, *Astrophys. J.*, **146**, 152–176 (Oct. 1966).
- 3: *Intrinsic Polarization of Rapidly Rotating Early-Type Stars*, J.P. Harrington and G.W. Collins, *Astrophys. J.*, **151**, 1051–1056 (March 1968).
- 4: *Ionization Stratification and Thermal Stability in Model Planetary Nebulae*, J.P. Harrington, *Astrophys. J.*, **152**, 943–962 (June 1968).
- 5: *On Continuum Absorption by Heavy Elements in High Excitation Planetary Nebulae*, J.P. Harrington, *Astrophys. J.*, **155**, 1117–1120 (March 1969).
- 6: *The Intrinsic Polarization of Mira Variables*, J.P. Harrington, *Astrophys. Letters*, **3**, 165–168 (May 1969).
- 7: *Ionization Stratification and Chemical Abundances in the Planetary Nebula NGC 7662*, J.P. Harrington, *Astrophys. J.*, **156**, 903–914 (June 1969).
- 8: *Polarization of Radiation from Stellar Atmospheres. The Grey Case*, J.P. Harrington, *Astrophys. and Space Science*, **8**, 227–242 (Aug. 1970).
- 9: *On Schuster's Emission-Line Mechanism*, J.P. Harrington, *Astrophys. J.*, **162**, 913–918 (Dec. 1970).
- 10: *The Bowen Fluorescence Mechanism in Planetary Nebulae*, J.P. Harrington, *Astrophys. J.*, **176**, 127–137 (Aug. 1972).
- 11: *The Scattering of Resonance-Line Radiation in the Limit of Large Optical Depth*, J.P. Harrington, *Mon. Not. Royal Astron. Soc.*, **162**, 43–52 (May 1973).
- 12: *The Scattering of Resonance-Line Radiation in the Limit of Large Optical Depth – II. Reflection and Transmission of Radiation Incident Upon a Slab*, J.P. Harrington, *Mon. Not. Royal Astron. Soc.*, **166**, 373–382 (Feb. 1974).
- 13: *Time-Dependent Effects in the Nebular Shell of FG Sagittae*, J.P. Harrington and P.A. Marionni, *Astrophys. J.*, **206**, 458–468 (June 1976).

- 14: *On the Extent of Departures from Equilibrium in Weak D-Type Ionization Fronts*, J.P. Harrington, Mon. Not. Royal Astron. Soc., **179**, 63–79 (April 1977).
- 15: *The Rocket-Ultraviolet Spectrum and Models of the Planetary Nebula NGC 7662*, R.C. Bohlin, J.P. Harrington, and T.P. Stecher, Astrophys. J., **219**, 575–584 (Jan. 1978).
- 16: *Ultraviolet Spectra of Planetary Nebulae – I. The Abundance of Carbon in IC 418*, J.P. Harrington, J.H. Lutz, M.J. Seaton, and D.J. Stickland, Mon. Not. Royal Astron. Soc., **191**, 13–22, (April 1980).
- 17: *Ultraviolet Spectra of Planetary Nebulae – IV. The C III  $\lambda$ 2297 Di-Electronic Recombination Line and Dust Absorption in the C IV  $\lambda$ 1549 Resonance Doublet*, J.P. Harrington, J.H. Lutz, and M.J. Seaton, Mon. Not. Royal Astron. Soc., **195**, 21P–26P (May 1981).
- 18: *IUE Observations of the Central Stars of the Planetary Nebulae NGC 6853 and NGC 7293*, R.C. Bohlin, J.P. Harrington, and T.P. Stecher, Astrophys. J., **252**, 635–643 (Jan. 1982).
- 19: *Ultraviolet Spectra of Planetary Nebulae – VI. NGC 7662*, J.P. Harrington, M.J. Seaton, S. Adams, and J.H. Lutz, Mon. Not. Royal Astron. Soc., **199**, 517–564 (May 1982).
- 20: *The Planetary Nebula IC 3568: A Model Based on IUE Observations*, J.P. Harrington and W.A. Feibelman, Astrophys. J., **265**, 258–271 (1 Feb. 1983).
- 21: *The Remarkable Ultraviolet Spectrum of the Planetary Nebula Abell 30*, J.P. Harrington and W.A. Feibelman, Astrophys. J., **277**, 716–724 (15 Feb. 1984).
- 22: *The Dust Content of the Planetary Nebula IC 3568*, M. Cohen, J.P. Harrington, and R. Hess, Astrophys. J., **283**, 687–693, (15 Aug. 1984).
- 23: *The Ne III Charge-Exchange Lines in the Planetary Nebula NGC 3918*, R.E.S. Clegg, J.P. Harrington, and P.J. Storey, Mon. Not. Royal Astron. Soc., **221**, 61P–67P (1 Aug. 1986).
- 24: *Dust in the Emission Line Gas of the Seyfert 2 Galaxy M3*, S.B. Kraemer and J.P. Harrington, Astrophys. J., **307**, 478–485 (15 Aug. 1986).

- 25: *Photoionization in the Halo of the Galaxy*, J.N. Bregman and J.P. Harrington, *Astrophys. J.*, **309**, 833–845 (15 Oct. 1986).
- 26: *The Planetary Nebula NGC 3918*, R.E.S. Clegg, J.P. Harrington, M.J. Barlow, and J.R. Walsh, *Astrophys. J.*, **314**, 551–571 (15 March 1987).
- 27: *Thermal infrared emission by dust in the planetary nebula NGC 3918: A model analysis of IRAS observations*, J.P. Harrington, D.J. Monk, and R.E.S. Clegg, *Mon. Not. Royal Astron. Soc.*, **231**, 577–595 (1 April 1988).
- 28: *The Photo-Ionization of He I ( $2^3S$ ) in Nebulae*, R.E.S. Clegg and J.P. Harrington, *Mon. Not. Royal Astron. Soc.*, **239**, 869–883 (15 Aug. 1989).
- 29: *The Moon, the Stars, and the Artist: Astronomy in the Works of Charles E. Burchfield*, J.P. Harrington, *The American Art Journal*, **XXII**, No. 2, 33–59, 1990.
- 30: *Planetary Nebula Halos. II. NGC 7662 and Shock Heating Mechanisms in Halos*, D. Middlemass, R.E.S. Clegg, J.R. Walsh, and J.P. Harrington, *Mon. Not. Royal Astron. Soc.*, **251**, 284–292 (15 July 1991).
- 31: *A Grain–Heated, Dusty Planetary Nebula in M22*, K.J. Borkowski and J.P. Harrington, *Astrophys. J.*, **379**, 168–176 (20 Sept. 1991).
- 32: *Stripping of a Planetary Nebula from the Globular Cluster M22*, K.J. Borkowski, Z. Tsvetanov, and J.P. Harrington, *Astrophys. J. Lett.*, **402**, L57 (10 Jan 1993).
- 33: *The Spectrum of the Central Star of the Planetary Nebula in M22*, J.P. Harrington and G. Paltoglou, *Astrophys. J. Lett.*, **411**, L103 (10 July 1993).
- 34: *HST Imaging of Hydrogen-Poor Ejecta in Abell 30 and Abell 78: Wind-Blown Cometary Structures*, K.J. Borkowski, J.P. Harrington, Z. Tsvetanov, and R.E.S. Clegg, *Astrophys. J. Lett.*, **415**, L47 (20 Sept 1993).
- 35: *Hubble Space Telescope Observations of Planetary Nebulae in the Magellanic Clouds. II. SMP 85, a Young Planetary*, M.A. Dopita, E. Vassiliadis, S.J. Meatheringham, H.C. Ford, R. Bohlin, P.R. Wood, T.P. Stecher, S.P. Maran, and J.P. Harrington, *Astrophys. J.*, **426**, 150 (1 May 1994).

- 36: *IUE Spectra and Photoionization Models of the Seyfert 2 Galaxies NGC 7674 and I Zw 92*, Kraemer, S.B., Wu, C.-C., Crenshaw, D.M., and Harrington, J.P., *Astrophys. J.*, **435**, 171 (1 Nov 1994).
- 37: *Dust in the Hydrogen-Poor Ejecta of A30*, K.J. Borkowski, J.P. Harrington, Blair, W.P., and Bregman, J., *Astrophys. J.*, **435**, 722 (10 Nov 1994).
- 38: *GHRs Observations of Mass-Loaded Flows in Abell 78*, J.P. Harrington, K.J. Borkowski, and Z. Tsvetanov, *Astrophys. J.*, **439**, 264 (20 Jan 1995).
- 39: *Interaction of a Stellar Wind with Clumpy Stellar Ejecta in A30*, K.J. Borkowski, J.P. Harrington, and Z. Tsvetanov, *Astrophys. J. Lett.*, **449**, L143 (20 Aug. 1995).
- 40: *Hubble Space Telescope Observations of Planetary Nebulae in the Magellanic Clouds. IV: [O III] Images and Evolutionary Ages*, M.A. Dopita, E. Vassiliadis, S.J. Meatheringham, R.C. Bohlin, H.C. Ford, J.P. Harrington, P.R. Wood, T.P. Stecher, and S.P. Maran, *Astrophys. J.*, **460**, 320-333 (20 March 1996).
- 41: *X-Ray Emission from the Wind-Blown Bubble in the Planetary Nebula BD+30 3639*, K. Arnaud, K.J. Borkowski, and J.P. Harrington, *Astrophys. J. Lett.*, **462**, L75 (10 May 1996).
- 42: *Hubble Space Telescope Observations of Planetary Nebulae in the Magellanic Clouds. III: Ultraviolet Spectroscopy Using the Faint Object Spectrograph*, E. Vassiliadis, M.A. Dopita, R.C. Bohlin, J.P. Harrington, H.C. Ford, S.J. Meatheringham, P.R. Wood, T.P. Stecher, and S.P. Maran, *Astrophys. J. Supp.*, **105**, 375-400 (August 1996).
- 43: *Hubble Space Telescope Observations of Planetary Nebulae in the Magellanic Clouds. V: Mass Dependence of Dredge-up and the Chemical History of the Large Magellanic Cloud*, M.A. Dopita, E. Vassiliadis, P.R. Wood, S.J. Meatheringham, J.P. Harrington, R.C. Bohlin, H.C. Ford, T.P. Stecher, and S.P. Maran, *Astrophys. J.*, **474**, 188-204 (1 Jan 1997).
- 44: *High Resolution Imagery of BD+30 3639 and Its Dusty Halo*, J.P. Harrington, N.J. Lane, S.M. White, and K.J. Borkowski, *Astron. J.*, **113**, 2147-2157, 2344-2349 (June 1997).
- 45: *Collimation of Astrophysical Jets: The Proto-Planetary Nebula He 3-1475*, K.J. Borkowski, J.M. Blondin, and J.P. Harrington, *Astrophys. J. Lett.*, **482**, L97 (10 June 1997).

- 46: *Dust Composition, Energetics, and Morphology of the Galactic Center*, K.-W. Chan, S.H. Moseley, S. Casey, J.P. Harrington, E. Dwek, R. Loewenstein, F. Varosi, and W. Glaccum, *Astrophys. J.*, **483**, 798-810 (10 July 1997).
- 47: *Hubble Space Telescope Observations of Planetary Nebulae in the Magellanic Clouds. VI: Cycles 4 and 5 Ultraviolet Spectroscopy Using the Faint Object Spectrograph*, E. Vassiliadis, M.A. Dopita, R.C. Bohlin, J.P. Harrington, H.C. Ford, S.J. Meatheringham, P.R. Wood, T.P. Stecher, and S.P. Maran, *Astrophys. J. Supp.*, **114**, 237-261 (February 1998).
- 48: *Discovery of a 6.4 micron Dust Feature in Hydrogen-Poor Planetary Nebulae*, Harrington, J.P., Lame, N.J., Borkowski, K.J., Bregman, J.D., and Tsvetanov, Z.I., *Astrophys. J. Lett.*, **501**, L123-L126 (1 July 1998).
- 49: *Hubble Space Telescope Observations of Planetary Nebulae in the Magellanic Clouds. VII: Cycles 3 and Archive Narrowband [O III] Imaging*, E. Vassiliadis, M.A. Dopita, S.J. Meatheringham, R.C. Bohlin, H.C. Ford, J.P. Harrington, P.R. Wood, T.P. Stecher, and S.P. Maran, *Astrophys. J.*, **503**, 253-277 (10 August 1998).
- 50: *Kinematics of 1200 kilometer per second Jets in He 3-1475*, Borkowski, K.J. and Harrington, J.P., *Astrophys. J.*, **550**, 778-784 (1 April 2001).
- 51: *The Angular Expansion and Distance of the Planetary Nebula BD+30 3639*, Li, J., Harrington, J.P., and Borkowski, K.J., *Astron. J.*, **123**, 2676-2688 (May 2002).
- 52: *Temperature Variations from HST Imagery and Spectroscopy of NGC 7009*, Rubin, R.H., Bhatt, N.J., Durour, R.J., Buckalew, M.J., Barlow, M.J., Liu, X.-W., Storey, P.J., Balick, B., Ferland, G.J., Harrington, J.P., and Martin, P.G., *MNRAS*, **334**, 777-786 (August 2002)
- 53: *Masses of the Planetary Nebula Central Stars in the Galactic Globular Cluster System from HST Imaging and Spectroscopy*, Jacoby, G.H., De Marco, O., Davies, J., Lotarevich, I., Bond, H.E., Harrington, J.P., and Lanz, T., *Astrophys. J.*, **836**, 93-102 (10 Feb 2017).

## Publications in Books and Conference Proceedings:

- 1: *Models of Young Planetary Nebulae*, J.P. Harrington, *Memoires de la Societe Royal des Sciences de Liege, Sixiem Serie* **5**, 437–445 (1973).
- 2: *Ionization Models of Planetary Nebulae*, J.P. Harrington, in *I.A.U. Symposium No. 76, "Planetary Nebulae, Observations and Theory"*, ed. by Y. Terzian, pp 151–157 (D. Reidel Pub. Co.: Dordrecht, Holland) 1979.
- 3: *IUE Observations of the Planetary Nebula NGC 7662*, J.P. Harrington, J.H. Lutz, and M.J. Seaton, in *The First Year of IUE*, ed. by A.J. Willis, p 199 (University College London: London) 1979.
- 4: *Silicon and Magnesium in Planetary Nebulae*, J.P. Harrington and P.A. Marionni, in *The Universe at Ultraviolet Wavelengths*, ed. by R. Chapman, pp 623–631, (NASA–CP 2171) 1981.
- 5: *Elemental Abundances in High Excitation Planetary Nebulae*, P.A. Marionni and J.P. Harrington, in *The Universe at Ultraviolet Wavelengths*, ed. by R. Chapman, pp 633–639 (NASA-CP 2171) 1981.
- 6: *The Frequency of Planetary Systems in Our Galaxy*, J.P. Harrington, in *Extraterrestrials: Where Are They?*, ed. by M. Hart and B. Zuckerman, pp 142–153, (Pergamon Press: Oxford) 1982.
- 7: *Mass Loss From the Central Star of the Planetary Nebula IC 3568*, J.P. Harrington, in *Ultraviolet Astronomy: Four Years of IUE Research*, ed. by Y. Kondo, J.M. Mead, and R.D. Chapman, pp 610–614 (NASA-CP 2238) 1982.
- 8: *Physical Processes in Nebular Shells and the Interpretation of Nebular Spectra*, J.P. Harrington, in *I.A.U. Symposium No. 103, "Planetary Nebulae"*, ed. by D.R. Flower, pp 219–227, (D. Reidel Pub. Co.: Dordrecht, Holland) 1983.
- 9: *A Model of the Planetary Nebula NGC 3918 Based on IUE Observations*, R.E.S. Clegg, J.P. Harrington, and M.J. Barlow, in *Proc. 4th European IUE Conference*, pp 337–340, (ESA-SP 128: Noordwijk) July 1984.
- 10: *Photoionization Models of Planetary Nebulae*, J.P. Harrington, in *Workshop on Model Nebulae*, ed. by D. Pequignot, pp 81–88 (Pub. de l'observatoire de Paris: Paris) 1986.

- 11: *Modeling the Thermal Emission From Dust in Planetary Nebulae*, J.P. Harrington, in *Planetary and Proto-planetary Nebulae: From IRAS to ISO*, ed. by A. Preite-Martinez, pp 239–248 (D. Reidel Pub. Co.: Dordrecht, Holland) 1987.
- 12: *Photoionization Models*, J.P. Harrington, in *I.A.U. Symposium No. 131, "Planetary Nebulae"*, ed. by S. Torres-Peimbert, pp 157–166 (Kluwer Academic Publishers: Dordrecht, Holland) 1989.
- 13: *The Hot Shocked Halos of the Planetaries NGC 6543, 6826, and 7662*, D. Middlemass, R.E.S. Clegg, J.R. Walsh, and J.P. Harrington, in *From Miras to Planetary Nebulae: Which Path for Stellar Evolution?*, eds. by M.-O. Mennessier and A. Omont, p420 (Editions Frontieres, Gif sur Yvette Cedex, France) 1990.
- 14: *HST Observations of Hydrogen-Poor Ejecta in Abell 30 and Abell 78: Evidence for Mass-Loaded Flows*, J.P. Harrington, K.J. Borkowski, Z. Tsvetanov, and R.E.S. Clegg, in *Circumstellar Media in the Late Stages of Stellar Evolution*, eds. R.E.S. Clegg, I.R. Stevans & W.P.S. Meikle, p 300 (Cambridge U Press, 1994).
- 15: *The Lexington Benchmarks for Numerical Simulations of Nebulae*, G. Ferland, L. Binette, M. Contini, J. Harrington, T. Kallman, H. Netzer, D. Pequignot, J. Raymond, R. Rubin, G. Shields, R. Sutherland, and S. Viegas, in *The Analysis of Emission Lines*, ed. R.E. Williams and M. Livio, Cambridge Univ. Press, pp 83-96 (1995).
- 16: *WFPC2 Observations of the Complex Planetary Nebula NGC 6543*, P. Harrington, Space Telescope Science Newsletter, Vol. 12, No. 1, p 3 (May 1995).
- 17: *Observations and Models of H-deficient Planetary Nebulae*, J. Patrick Harrington, in *Hydrogen-Deficient Stars*, ed. C.S. Jeffery and U. Heber, ASP Conf. Proc. No. 96, pp 193-203 (1996).
- 18: *Modeling Hydrogen-Deficient Planetary Nebulae*, J.P. Harrington, K.J. Borkowski, and Z.I. Tsvetanov, in *I.A.U. Symposium No. 180, "Planetary Nebulae"*, ed. by H.J. Habing and H.J.G.L.M. Lamers, p 235 (Kluwer Academic Pub., 1997).
- 19: *Physical Conditions in NGC 6543*, Nancy Jo Lane, J. Patrick Harrington, and K. Borkowski, in *I.A.U. Symposium No. 180, "Planetary Nebulae"*, ed. by H.J. Habing and H.J.G.L.M. Lamers, pp 252-253 (Kluwer Academic Pub., 1997).

- 20: *Searching for Jets in Asymmetrical Nebulae with the Hubble Space Telescope*, J. P. Harrington and K. J. Borkowski, in *Asymmetrical Planetary Nebulae II: From Origins to Microstructures*, ed. J.H. Kastner, N. Soker, S. Rappaport, ASP Conference Series, Vol. 199, p. 383. (Astr. Soc. Pacific, 2000)
- 21: *Planetary nebula central star mass loss / winds*, J. Patrick Harrington, in the Grove *The Encyclopedia of Astronomy and Astrophysics*, Institute of Physics Publishing, October 2000.
- 22: *Planetary Nebulae Results from the Infrared Space Observatory*, R.H. Rubin, R.J. Dufour, S.W.J. Colgan, A. Liao, J.P. Harrington, D.A. Levine, and S.D. Lord, Rev. Mex. AA (Serie de Conferencias), 2001, in press.
- 23: *Photoionization model nebulae*, Pequignot, D., Ferland, G., Netzer, H., Kallman, T., Ballantyne, D.R., Dumont, A-M., Ercolano, B., Harrington, P., Kraemer, S., Morisset, C., Nayakshin, S., Rubin, R.H., and Sutherland, R., in "Spectroscopic Challenges of Photoionized Plasmas", eds. Ferland, G.J. & Savin, D.W., ASP Conference Series, Vol. 247, pp 533-556 (2001).
- 24: *Infrared Spectroscopy of Atomic Lines in Gaseous Nebulae*, Rubin, R.H., Dufour, R.J., Geballe, T.R., Colgan, S.W.J., Harrington, J.P., Lord, S.D., Liao, A.L., and Levine, D.A., in "Spectroscopic Challenges of Photoionized Plasmas", eds. Ferland, G.J. & Savin, D.W., ASP Conference Series, Vol. 247, pp 479-498 (2001).
- 25: *Temperature Variations from HST Imagery and Spectroscopy of NGC 7009*, R.H. Rubin, N.J. Bhatt, R.J. Dufour, B.A. Buckalew, M.J. Barlow, X.-W. Liu, P.J. Storey, B. Balick, G.J. Ferland, J.P. Harrington, and P.G. Martin, in IAU Symp. No. 209 "Planetary Nebulae: Their Evolution and Role in the Universe", eds. S. Kwok, M. Dopita & R. Sutherland, p 361. (Astr Soc Pacific, 2003)
- 26: *HST Measurements of the Angular Expansion, Kinematics and Distance of the Planetary Nebula BD+30 3639*, J. Patrick Harrington, Jianyang Li, and Kazimierz J. Borkowski, in IAU Symp. No. 209 "Planetary Nebulae: Their Evolution and Role in the Universe", eds. S. Kwok, M. Dopita & R. Sutherland, p 480. (Astr Soc Pacific, 2003)
- 27: *Planetary Nebulae: Emerging Directions and Critical Research*, Harrington, J.P., in "Asymmetric Planetary Nebulae III", eds. M. Meixner, J. Kastner, B. Balick and N. Soker, ASP Conference Series, Vol. 313, p 588 (2004).
- 28: *Observations and a Model of NGC 2610*, J. Partick Harrington, in IAU Symp. No. 234 "Planetary Nebulae in our Galaxy and Beyond", eds. M. J. Barlow and R. H. Mendez, p 413. (Cambridge University Press, 2006)



29: *Polarized Continuum Radiation from Stellar Atmospheres*, J. Partick Harrington, in IAU Symp. No. 305 "Polarimetry: From the Sun to Stars and Stellar Environments", eds. K. N. Nagendra, S. Bagnulo, R. Centeno & M. Martinez Gonzales, p 395. (Cambridge University Press, 2015)

30: *Polarization from a spinning star*, J. Patrick Harrington, Nature Astronomy, News and Views, <http://doi.org/10.1038/s41550-017-0267-1> (18 Sep 2017).