

NASA IUE Preprints

(Received since Newsletter No. 33)

D. M. Crenshaw, O. W. Bruegman, and E. A. Park

"The Stellar Wind Velocity Function for Red Supergiants Determined in Eclipsing Binaries", I. A. Ahmad and R. E. Stencel

"Rapid, Low Level X-Ray Variability in Active, Late Type Dwarfs", C. W. Ambruster, S. Sciortino, and L. Golub

"Redshifts of High-Temperature Emission Lines in the Far-Ultraviolet Spectra of Late-Type Stars. II. New Precise Measurements of Dwarfs and Giants", T. R. Ayres, E. Jensen and O. Engvold

"The Ionization Structure of Planetary Nebulae VII. New Observations of the Ring Nebula", T. Barker

"The Ionization Structure of Planetary Nebulae VIII. NGC 6826", T. Barker

"Colliding Stellar Winds in the Eclipsing Wolf-Rayet Binary V444 Cygni", D. N. Brown and S. N. Shore

"The UV Spectrum of Non-Coronal Late-Type Stars: The Gamma Crucis (M3.4 III) Reference Spectrum", by K. G. Carpenter, J. E. Pesce, R. E. Stencel, A. Brown, S. Johansson, and R. F. Wing

"Further Observations of the Peculiar Hot Helium-Rich Degenerate KPD0005+5106", R. A. Downes, E. M. Sion, J. Liebert, and J. B. Holberg

"Ultraviolet Photometry with the IUE Satellite", J. A. Eaton

"The Long-Period Semi-Detached Giant Binary System 5 Ceti", J. A. Eaton and S. C. Barden

"The Discrete Correlation Function: A New Method for Analyzing Unevenly Sampled Variability Data", R. A. Edelson and J. H. Krolik

"Spectral Synthesis in the Ultraviolet. I. Far Ultraviolet Stellar Library", M. N. Fanelli, R. W. O'Connell, and T. X. Thuan

"The (C III  $\lambda$  1909/ Si III  $\lambda$  1892) Ratio as a Diagnostic for Planetary Nebulae and Symbiotic Stars", W. A. Feibelman and L. A. Aller

"High-Velocity Ultraviolet Iron, Silicon, Oxygen, and Sulfur Absorption Features Associated with the Remnant of SN 1006", R. A. Fesen, C. C. Wu, M. Leventhal, and A. J. S. Hamilton

"Stellar Winds in the Small Magellanic Cloud", C. D. Garmann and E. L. Fitzpatrick

"Highly-Ionized Stellar Winds in Be Stars: The Evidence for Aspect Dependence", C. A. Grady, K. S. Bjorkman and T. P. Snow

"Optical, Ultraviolet, and Infrared Observations of Cooling Flows in Rich Clusters", by E. M. Hu

"The Chromospheres and Coronae of Five G-K Main-Sequence Stars", C. Jordan, T. R. Ayres, A. Brown, J. L. Linsky and T. Simon

"The CIV Doublet Ratio-Intensity Effect in Symbiotic Stars", A. G. Michalitsianos, M. Kafatos, R. P. Fahey, R. Viotti, A. Cassatella, and A. Altamore

"A Study of the Ultraviolet Evolution of U Geminorum Between Outbursts", A. L. Kiplinger, E. M. Sion, and P. Szkody

"Information Exchange for SN 1987A, A Scientifically Controlled Bulletin Board", B. M. Lasker, M. J. Henriksen, N. Panagia, P. M. B. Shames, P. Shull, Jr., S. Stevens-Rayburn, and A. K. Uomoto

"On the Energetics of SN 1987A", N. Panagia

"The Interstellar Spectrum of SN 1987A in the Ultraviolet", J. C. Blades, J. M. Wheatley, N. Panagia, M. Grewing, M. Pettini, W. Wamsteker

"Images and Spectrograms of Sanduleak -69 202, the SN 1987A Progenitor", N. Walborn

"An Improved Photometric Analysis of SX Aurigae", A. P. Linnell, G. J. Peters, and R. S. Polidan

"What is the Essential Physics of Mass Loss from Late-Type Stars?", J. L. Linsky

"SiO Cooling Instability in the Envelopes of Cool Giant Stars", D. O. Muchmore, J. A. Nuth III, and R. E. Stencel

"Ultraviolet and Optical Observations of AG Draconis", J. H. Lutz, T. E. Lutz, J. D. Dull, D. D. Kolb

- "Sanduleaks's Star (LMC Anonymous): A Possible Supernova Progenitor in the Large Magellanic Cloud", A. G. Michalitsianos and M. Kafatos
- "Relative C, N, O Abundances in Red Giants, Planetary Nebulae, Novae and Symbiotic stars", H. Nussbaumer, H. Schild, H. M. Schmid, and M. Vogel
- "Discovery of a 9.5-year Period in the Symbiotic Star V 1016 Cyg", H. Nussbaumer and H. M. Schmid
- "Different Regions of Line Formation in the Envelope of HD 190073", A. E. Ringuelet, M. Rovira, L. Cidale, and J. Sahade
- "The IUE Spectrum of the Early-Type Eclipsing Binary  $\mu$  Scorpii", J. Sahade and L. G. Garcia
- "The sd Stars: Magnetically Controlled Stellar Winds Among the Helium Weak Stars", S. N. Shore, D. N. Brown, and G. Sonneborn
- "The Physics of Interstellar Shock Waves", J. Shull and B.T. Draine
- "The Onset of Chromospheric Activity Among the A- and F-Type Stars", T. Simon and W. Landsman
- "Hydrogen and Calcium in DB White Dwarfs: A Case for Interstellar Accretion", E. M. Sion, S. J. Kenyon, P. A. Aannestad
- "Kinematical Tests of White Dwarf Formation Channels and Evolution", E. M. Sion, M. L. Fritz, J. P. McMullin, and M. D. Lallo
- "On the Absence of Young White-Dwarf Companions to Five Technetium", V. V. Smith and D. L. Lambert
- "Extinction and Abundance Properties of Alpha Scorpii Circumstellar Grains", T. P. Snow Jr., R. H. Buss Jr., D. P. Gilra, and J. P. Swings
- "High-Resolution Ultraviolet Observations of Interstellar Lines Toward  $\zeta$  Persei Observed with the Balloon-Borne Ultraviolet Spectrometer", T. P. Snow, H. J. G. L. M. Lamers, C. L. Joseph
- "The Progenitor of SN 1987A: Spatially-Resolved Ultraviolet Spectroscopy of the Supernova Field", G. Sonneborn, B. Altner, R. P. Kirshner
- "Broad, Variable Absorption Lines in the Seyfert Galaxy NGC 3516: Mapping the Structure of the Emission Line Regions", G. M. Voit, J. M. Shull, and M. C. Begelman

"Rotational Modulation and Flares in RS Canum Venaticorum and BY Draconis Systems. IV. The Spatially Resolved Chromosphere of AR Lacertae", F. M. Walter, J.E. Neff, D. M. Gibson, J. L. Linsky, M. Rodono, D. E. Gary and C. J. Butler

"The Unusual Dust Scattering Properties in the Reflection Nebula CED 201", A. N. Witt, R. C. Bohlin, T. P. Stecher, and S. M. Graff

"Eight Years of Ultraviolet Spectra of the Variable BL Lacertae Object PKS2155-304", C. M. Urry, Y. Kondo, K.R.H. Hackney, R. L. Hackney

NASA IUE Reprints

(Received since Newsletter No. 31)

D. M. Crenshaw, O. W. Bruegman, and E. A. Park

"Physical Parameters for 12 Planetary Nebulae and their Central Stars in the Magellanic Clouds", L. H. Aller, C. D. Keyes, S. P. Maran, T. R. Gull, A. G. Michalitsianos, and T. P. Stecher, 1987, Ap. J., 320, 159.

"Spectrum and Chemical Analysis of the Double-Ring Planetary Nebula IC 1297", L. H. Aller, C. D. Keyes and W. A. Feibelman, 1986, Ap. J., 311, 930.

"Scattered Light in the IUE Spectra of ε Aurigae", B. Altner, R. D. Chapman, Y. Kondo, and R. E. Stencel, 1986, Astron. Astrophys. Suppl. Ser., 65, 199.

"The Ionization Structure of Planetary Nebulae. VII. New Observations of the Ring Nebula", T. Barker, 1987, Ap. J., 322, 922.

"The Ionization Structure of Planetary Nebulae. VI. NGC 7662", T. Barker, 1986, Ap. J., 308, 314.

"The Ultraviolet Calibration of the Hubble Space Telescope. I. Secondary Standards of Absolute Ultraviolet Flux and the Recalibration of IUE", R. C. Bohlin, 1986, Ap. J., 308, 1001.

"The Ultraviolet Calibration of the Hubble Space Telescope. II. A Correction for the Change in Sensitivity of the SWP Camera on the IUE", R. C. Bohlin and C. J. Grillmair, 1988, Ap. J. Suppl., 66, 209.

"The Cepheid Mass Problem and Cepheid Binaries", E. Bohm-Vitense, 1986, Ap. J., 303, 262.

"Doppler Tomography of the Stellar Wind of the Wolf-Rayet Binary Star V444 Cygni", D. N. Brown and S. N. Shore, 1986, New Insights in Astrophysics, ESA SP-263, 353.

"The Unexpected Ultraviolet Variability of Herbig-Haro Object 1", E. W. Brugel, K. H. Bohm, J. M. Shull and E. Bohm-Vitense 1985, Ap. J., 292, L75.

"An Archival Study of IUE Observations of Low-Redshift Quasars", F. H. Cheng, and L. Z. Fang, 1987, M.N.R.A.S., 226, 485.

"An Analysis by Wavelength Coincidence Statistics of the Ultraviolet Spectrum of Kappa Cancri", G. T. Chjonacki, C. R. Cowley, and D. J. Bord, 1984, Ap. J., 286, 736.

"Continued Observations of the H Ly $\alpha$  Emission from Uranus", J. Clarke, S. Durrance, S. Atreya, A. Barnes, J. Belcher, M. Festou, C. Imhoff, J. Mihalov, W. Moos, J. Murthy, A. Pradhan, and T. Skinner, 1986, Journal of Geophysical Research, 91, 8771.

"Flux Distribution in the Algol Binary System RW Persei", J. J. Dobias and M. J. Plavec, 1987, P.A.S.P., 99, 159.

"A Spectrophotometric Study of the Algol Binary System RX Geminorum", J. J. Dobias and M. J. Plavec, 1987, P.A.S.P., 99, 159.

"IUE Observations of the Eruptive Pre-Main Sequence Object FU Orionis", R. Ewald, C. L. Imhoff, M. S. Giampapa, 1986, New Insights in Astrophysics, ESA SP-263, 205.

"Spectral Synthesis in the Ultraviolet. I. Far-Ultraviolet Stellar Library", M. N. Fanelli, R. W. O'Connell, and T. X. Thuan, 1987, Ap. J., 321, 768.

"The Ultraviolet Spectrum of the Eclipsing Binary IM Aurigae", F. C. Bruhweiler, W. A. Feibelman, and Y. Kondo, 1986, A. J., 92, 441.

"The Peculiar Planetary Nebula 75+35 $^0$ 1", W. A. Feibelman, 1987, P.A.S.P., 99, 270.

"The Io Torus and the Jovian Magnetosphere", P. D. Feldman, 1986, New Insights in Astrophysics, ESA SP-263, 11.

"The Energy Distributions of B Supergiants in the Large Magellanic Cloud", E. L. Fitzpatrick, 1986, New Insights in Astrophysics, ESA SP-263, 423.

"Highly Ionized Stellar Winds in Be Stars: The Evidence for Aspect Dependence", C. A. Grady, K. S. Bjorkman and T. P. Snow, 1987, Ap. J., 320, 376.

"The Evidence for Aspect Dependent Winds in Be Stars", C. A. Grady, K. S. Bjorkman and T. P. Snow, 1986, New Insights in Astrophysics, ESA SP-263, 419.

"Spectroscopic Binary Orbits from Ultraviolet Radial Velocities Paper 3:δ Orionis", A. S. Harvey, D. J. Stickland, I.D. Howarth and E. F. Zuiderwijk, 1987, The Observatory, 107, 205.

"Mass Distribution and Evolutionary Scheme for Central Stars of Planetary Nebulae", S. R. Heap and H. J. Augensen, 1987,  
Ap. J., 313, 268.

"Ultraviolet Detection of the Nucleus of NGC2440", S. R. Heap, 1987,  
Nature, 326, 571.

"DA White Dwarf Effective Temperatures Determined from IUE Lyman-Alpha Profiles", J. B. Holberg, F. Wesemael, and J. Basile, 1986,  
Ap. J., 306, 629.

"An Analysis of the Bright White Dwarf CD -38°10980", J. B. Holberg,  
F. Wesemael, G. Wegner and F. C. Bruhweiler, 1985, Ap. J., 293, 294.

"Interstellar Abundances in Dense, Moderately Reddened Lines of Sight.  
I. Observational Evidence for Density Dependent Depletion",  
C. L. Joseph, T. P. Snow, Jr., C. G. Seab and R. M. Crutcher,  
1986, Ap. J., 309, 771.

"Ultraviolet Variability and Mass Expulsion from R Aquarii", M. Kafatos,  
A. G. Michalitsianos and J. M. Hollis, 1986, Ap. J. Suppl., 62, 853.

"Active Extragalactic Sources: Nearly Simultaneous Observations from  
20 Centimeters to 1400 Å", R. Landau, B. Goulish, T. J. Jones,  
T. W. Jones, J. Pedelty, L. Rudnick, M. L. Sitko, J. Kenney,  
T. Roellig, E. Salonen, S. Urpo, G. Schmidt, G. Neugebauer,  
K. Matthews, J. H. Elias, C. Impey, P. Clegg, and S. Harris, 1986,  
Ap. J., 308, 78.

"The Ultraviolet Spectra of Intermediate-Redshift Quasars. II.",  
A. L. Kinney, P. J. Huggins, A. E. Glassgold and  
J. N. Bregman, 1987, Ap. J., 314, 145.

"Ultraviolet Observations of SN 1987A", R. P. Kirshner, G. Sonneborn,  
D. M. Crenshaw and G. E. Nassiopoulos, 1987, Ap. J., 320, 602.

"HD 47755, A New Eclipsing Binary", R. H. Koch, D. H. Bradstreet,  
B. J. Hrivnak, R. J. Pfeiffer and P. M. Perry, 1986, A.J.,  
91, 590.

"IUE Spectroscopy, Visible-Band Photometry, and Polarimetry of  
HD 47732 (V641 Monocerotis)", R. H. Koch, B. J. Hrivnak,  
D. H. Bradstreet, W. Blitzstein, R. J. Pfeiffer and P. M. Perry,  
1985, Ap. J., 288, 731.

"Temperatures for Hot and Pulsating DB White Dwarfs Obtained  
with the IUE Observatory", J. Liebert, F. Wesemael,  
C. J. Hansen, G. Fontaine, H. L. Shipman, E. M. Sion,  
D. E. Winget and R. F. Green, 1986, Ap. J., 309, 241.

- "MR Cygni Revisited", A. P. Linnell and J. Kallrath, 1987, Ap. J., 316, 754.
- "Ultraviolet and Optical Observations of AG Draconis", J. H. Lutz, T. E. Lutz, J. D. Dull, D. D. Kolb, 1987, A. J., 94, 463.
- "Near-Ultraviolet Spectroscopy of Seyfert Nuclei: Reddening and Bowen Fluorescence", M. A. Malkan, 1986, Ap. J., 310, 679.
- "PG 1411 + 442: The Nearest Broad Absorption Line Quasar", M. A. Malkan, R. F. Green and J. B. Hutchings, 1987, Ap. J., 322, 729.
- "PG 1411 + 442: The Nearest Broad Absorption Line Quasar", M. A. Malkan, R. F. Green and J. B. Hutchings, 1987, Ap. J., 322, 729.
- "The Ultraviolet Spectrum of Beta Lyrae", P. A. Massali, 1987, Ap. J. Suppl., 65, 695.
- "Jet Activity in the Symbiotic Variable R Aquarii", A. G. Michalitsianos, J. M. Hollis and M. Kafatos, 1986, Canadian Journal of Physics, 64, 523.
- "IUE Observations of Hydrogen and Deuterium in the Local Interstellar Medium", J. Murthy, R. C. Henry, H. W. Moos, W. B. Landsman, J. L. Linsky, A. Vidal-Madjar and C. Gry, 1987, Ap. J., 315, 675.
- "High-Velocity Interstellar Gas in the Line of Sight to the Wolf-Rayet Star HD 50896", J. Nichols-Bohlin and R. A. Fesen, 1986, A. J., 92, 642.
- "An IUE Survey of Activity in Red Giants and Supergiants", I. Oznovich and D. M. Gibson, 1987, Ap. J., 319, 383.
- "The Moderately Interacting Algol-Type Eclipsing Binary Ry Geminorum", M. J. Plavec and J. J. Dobias, 1987, A. J., 93, 440.
- "The Moderately Interacting Algol Binary RS Cephei", M. J. Plavec and J. J. Dobias, 1987, A. J., 92, 171.
- "Ultraviolet Observations of Extensive Variability in the Stellar Wind of  $\zeta$  Persei", R. K. Prinja, I. D. Howarth and H. F. Henrichs, 1987, Ap. J., 317, 389.

- "The Extinction Law in the Open Cluster NGC 457 and the Intrinsic Energy Distribution of  $\phi$  Cassiopeiae (FO Ia)", P. Rosenzweig and N. D. Morrison, 1986, Ap. J., 306, 522.
- "The Abundance of Zinc in Hg-Mn Stars", K. Sadakane, J. Jugaku, and M. Takada-Hidai, 1988, Ap. J., 325, 776.
- "Different Regions of Line Formation in the Envelope of the Early Emission Line Star HD 190073", A. E. Ringuelet, M. Rovira, L. Cidale, and J. Sahade, 1987, Astron. Astrophys. 183, 287.
- "The IUE Spectrum of the Early-Type Eclipsing Binary  $\mu$  Scorpii", J. Sahade and L. G. Garcia, 1987, P.A.S.P., 99, 617.
- "Evolution of Interacting Binaries", J. Sahade, 1986, New Insights in Astrophysics, ESA SP-263, 267.
- "IUE Observations of Magnetically Controlled Stellar Winds in the Helium Peculiar Stars", S. Shore and D. N. Brown, 1986, New Insights in Astrophysics, ESA SP-263, 361.
- "The Ultraviolet Variability of AY Ceti", T. Simon and G. Sonneborn, 1987, A. J., 94, 1657.
- "The Dependence of Ultraviolet Chromospheric Emission Upon Rotation Among Late-Type Stars", T. Simon and F. C. Fekel, Jr., 1987, Ap. J., 316, 434.
- "On the Frequency of Helium-Rich Degenerates in Wide Binaries", E. M. Sion and T. D. Oswalt, 1988, Ap. J., 326, 249.
- "Search for Line Profile Variability in HD 96548 (WN8+?) and HD 93131 (WN7abs)", L. J. Smith, A. J. Willis, C. D. Garmann and P. S. Conti, 1986, New Insights in Astrophysics, ESA SP-263, 389.
- "Chromospheric and Transition-Region Emission from Young Solar-Type Stars in Clusters, Kinematic Groups, and the Field", D. R. Soderblom and S. D. Clements, 1987, A. J., 93, 920.
- "Photometry of the Recent Eclipse of Epsilon Aurigae", R. E. Stencel, in "Highlights of Astronomy", J. P. Swings (ed.), p. 143, 1986.
- "Spectroscopic Binary Orbits from Ultraviolet Radial Velocities Paper 1:  $\tau$  Orionis", D. F. Stickland, 1987, The Observatory, 107, 5.
- "Spectroscopic Binary Orbits from Ultraviolet Radial Velocities Paper 2: Plaskett's Star", D. J. Stickland, 1987, The Observatory, 107, 68.
- "Z Camelopardalis: Outburst P Cygni Profiles and Quiescent Continuum", P. Szkody and M. Mateo, 1986, Ap. J., 301, 286.

"The Interstellar Carbon Abundance. II. Rho Ophiuchi and Beta Scorpii,  
D. E. Welty, D. G. York and L. M. Hobbs, 1986, Pub. A.S.P., 98, 857.

"Detection of Scattering in the 2175 Å Interstellar Band", A. N. Witt,  
R. C. Bohlin and T. P. Stecher, 1986, Ap. J., 305, L23.

"Activity in F Stars, S. C. Wolff, A. M. Boesgaard and T. Simon,  
1986, Ap. J., 310, 360.