

## Curriculum Vitae

**Name:** David Hart Bradstreet  
Eastern University  
Department of Physical Science  
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### **Education:**

Ph.D. Astronomy & Astrophysics, University of Pennsylvania, 1983  
M.S. Astronomy & Astrophysics, University of Pennsylvania, 1980  
B.S. Astronomy, Communications, & Secondary Education,  
Eastern College & Villanova University, 1976

### **Employment:**

Professor & Observatory/Planetarium Director, Eastern University, 1996 -  
Professor & Planetarium Director, Eastern College, 1991 - 1996  
Associate Professor & Planetarium Director, Eastern College, 1986 - 1991  
Adjunct Professor, Villanova University, Summer 1990, Spr 1992,  
Spr 1997  
Assistant Professor & Planetarium Director, Eastern College, 1983 - 1986  
Research Associate, Flower & Cook Observatory, U. of Penn., 1983 - 1992  
Adjunct Professor, Cabrini College, 1982 - 1997  
Research Assistant, University of Pennsylvania, 1980 - 1981  
Instructor & Planetarium Director, Eastern College, 1976 - 1983

### **Awards and Honors:**

One of the first 13 inductees chosen for **Eastern University's Lamplight Society**, "...given in honor of those whose lives and work have been beacons of exemplary Christian service, making a unique contribution to the life and mission of Eastern University and illuminating the path for those who will follow.", 2002  
Eastern College Observatory named the **David H. Bradstreet Observatory at Eastern College** by the Board of Directors in honor of fundraising and planning efforts resulting in the construction of the new campus observatory, 1996  
Alumnus of the Year, Eastern College, 1996  
NASA Peer Review Panel for the International Ultraviolet Satellite and Extreme Ultraviolet Satellite, 1992, 1993  
Invited speaker at NATO Advanced Studies Institute in Active Close Binaries, held in Kusadasi, Turkey, 1989

Lindback Award for Distinguished Teaching, 1989  
Professor of the Year, Eastern College, 1987, 1989, 1991, 1995, 2000  
Nominated for Friend of the Students Award, Eastern College Parents  
Council, 1987  
Zaccheus Daniels Fellowship, University of Pennsylvania, 1983  
Ella and Jesse Pauling Fellow, University of Pennsylvania, 1983  
Presidential Scholarship, Eastern College, 1972 - 1976  
Who's Who in American Colleges and Universities, 1976  
Cum Laude graduate, Eastern College, 1976

### **Grants:**

\$8,000 was donated by emeritus Board member Connie Fowler for the purchase of a new fulldome planetarium show, "The Zula Patrol: Under the Weather!"

\$160,000 was raised from private donors during the period 1996-2006 towards the purchase and upkeep of a new planetarium instrument. These funds were put towards the purchase of a Spitz **SciDome** digital fulldome planetarium projector and installed in November 2006 in our existing 20-foot planetarium facility.

Awarded a 3-year \$400,000 National Science Foundation grant with Edward F. Guinan of Villanova University to completely automate eclipsing binary light curve analysis via artificial intelligence techniques, 2005.

First awardee of the Provost Research Fellowship of Eastern University, towards the purchase of a new CCD camera (\$3000), 2002.

NASA grant with E.F. Guinan and colleagues of Villanova University to accurately measure stellar temperatures of binary stars in the Magellanic Clouds with the Hubble Space Telescope (32 orbits of observing time awarded) in order to continue our successful program of improving distance calculations to these nearby galaxies, 1999.

Awarded 6 nights of observing time on the 4-meter telescope at Cerro Tololo Interamerican Observatory (Chile) to obtain radial velocity data on binaries in the Magellanic Clouds to augment our (E.F. Guinan and colleagues) Cosmic Distance Scale studies, 1999, 2001.

Received \$5000 from the Leon and Claire Riebman Fund of the Jewish Federation of Greater Philadelphia for Observatory improvements, 1999.

NASA grant with E.F. Guinan of Villanova University to accurately measure stellar temperatures of binary stars in the Magellanic Clouds with the Hubble Space Telescope (30 orbits of observing time awarded) in order to improve distance calculations to these nearby galaxies, as well as to study the properties of extragalactic binaries. This will include the first accurate, directly measured mass and distances of extragalactic stars. 1996.

During the period from 1988-96, \$450,000 was raised in conjunction with the Eastern College Development Office for the construction and equipping of a state-of-the-art observatory, completed during the summer of 1996.

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Consultant with E.F. Guinan and F.P. Maloney of Villanova University on a NSF grant to use *Eclipsing Binaries as Astrophysical Laboratories* under the Research for Undergraduate Instruction umbrella (RUI), 1994-96.

NSF grant with M. Wily of Eastern College to establish an Internet link at Eastern College and educate faculty, staff, and students in the use of Internet, and specifically the World Wide Web via the browser *Mosaic*, 1994.

Three NASA grants with E.F. Guinan and F.P. Maloney of Villanova University and A. Gimenez of Spain to accurately measure stellar temperatures of binary stars in the Magellanic Clouds with the International Ultraviolet Explorer (*IUE*) in order to make important new distance calculations to these nearby galaxies, as well as to study the properties of extragalactic binaries, 1993-96.

NASA grant with E.F. Guinan of Villanova U. and T. Teays of Goddard SpaceFlight Center to study the mysterious, rapidly evolving star FG Sge with the *IUE*, 1993.

NASA grant with E.F. Guinan of Villanova U. and B.J. Hrivnak of Valparaiso U. to observe twelve previously unobserved short period contact binaries with the *IUE* for five 8-hour shifts, 1992.

Awarded one week of observing time with E.F. Guinan at Mt. Laguna Observatory, San Diego State University, to observe the peculiar near-contact binary V361 Lyr and contact binaries in the old open cluster NGC 188, 1992.

NASA grant with E.F. Guinan of Villanova U. to observe the spotted contact binary VW Cep for six 8-hour shifts with the International Ultraviolet Satellite (*IUE*), 1991.

NASA grant with E.F. Guinan of Villanova U. to observe the peculiar spotted star ER Vul for five continuous 8-hour shifts with the International Ultraviolet Satellite (*IUE*) as part of a worldwide ground-based observing campaign organized by Guinan and myself, 1991.

Awarded a computer system from Digital Equipment Corporation to produce a program to make binary stars, known as Binary Maker 2.0, 1990.

NASA grant with C. Ambruster and E.F. Guinan of Villanova U. to observe the peculiar giant star Ia in the old cluster NGC 188, which may be a remnant of binary star coalescence, with the International Ultraviolet Satellite (*IUE*), 1990.

NASA grant with E.F. Guinan of Villanova U. to observe the spotted contact binary VW Cep for four consecutive 8-hour shifts with the International Ultraviolet Satellite (*IUE*), 1989.

NASA grant with E.F. Guinan of Villanova U. to observe Algol binaries with the International Ultraviolet Satellite (*IUE*), 1989.

NASA grant with E.F. Guinan of Villanova U. to observe the spotted contact binary VW Cep for two consecutive 8-hour shifts with the International Ultraviolet Satellite (*IUE*), 1988.

NASA grant with E.F. Guinan of Villanova U. under the Space Astrophysics Data Analysis Program to study *IUE* satellite archival data on the contact binary VW Cep, 1987.

*IUE* discretionary shift granted by Y. Kondo (*IUE* program director) to observe VW Cep, 1987.

Observing time at Kitt Peak National Observatory to study contact binaries, 1985.

Summer Research grants, Eastern College, 1985 - 1989.

Research Fellow for R.H. Koch of U. of Penn. under the National Science Foundation, 1981.

Observing time at Kitt Peak National Observatory and Cerro Tololo Interamerican Observatory (Chile) to study contact binaries as the basis for a dissertation, 1981.

### **Professional Organizations:**

American Astronomical Society

International Amateur-Professional Photoelectric Photometry

International Astronomical Union

International Society of Planetarium Educators

Sigma Zeta

### **Teaching Experience:**

- Eastern Univ.**
- planetarium director (part-time), 1972 - present
  - two semester introductory astronomy including observational laboratory, 1976 - present
  - two semester introductory physics and labs, calculus based, 1980 - 2007
  - one semester Cosmology course required as the Science, Technology and Values core requirement for the Templeton Honors College, 2000 - present
  - introductory programming in BASIC, 1983 - 1987
  - scientific programming using FORTRAN 77, 1986 - 1988
  - Numerical Analysis, 1985 - 1989
  - Precalculus, 1983 - 1986
  - Man & Creation: A Physical Integration (cosmology & cosmogony; senior seminar with P. Boehne), 1987
  - one semester Cosmology course for the sophomore core requirement for the Templeton Honors College at Eastern College, 2000 - present
- Cabrini College**
- two semester introductory physics (non-calculus), 1982 - 1997
- Villanova Univ.**
- Summer astronomy course, 1990
  - guest lecturer, Undergraduate Research, 1992
  - team taught Undergraduate Research with E.F. Guinan, 1997
- Univ. of Penn.**
- Teaching Assistant, 1977 - 1982
- Spitz, Inc
- Instructor for the Spitz Summer Digital Institute, 2007
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## Publications:

- 82 – Absolute Parameters for the Very Young, Hot Eclipsing Binary V684 Mon in NGC 2264 (w/ J. R. Hargis, S. J. Sanders, A. Prsa & P. B. Etzel), 2007, *Bull. A.A.S.*, **39**, 98. (abstract)
- 81 – Observe the Model: On Inverse Problems in Astronomy (w/ E. J. Devinney, E. F. Guinan, M. DeGeorge & J. M. Giammarco), 2006, *Bull. A.A.S.*, **38**, 119. (abstract)
- 80 – First Results from ROTES: The ROtse Telescope Eclipsing-binary Survey (w/ I. Ribas, J. C. Morales, C. Allende Prieto, C. Jordi & S. J. Sanders), 2006, *Ap. & Sp. Sci.*, **304**, 231.
- 79 – Fundamentals of Solving Eclipsing Light Curves Using Binary Maker 3, *The Society for Astronomical Sciences 24<sup>th</sup> Annual Symposium on Telescope Science*, 2005, 23.
- 78 – Time-Series Ensemble Photometry and the Search for Variable Stars in the Open Cluster M11 (w/ J. R. Hargis & E. L. Sandquist), 2005, *Astron. J.*, **130**, 2824.
- 77 – Light Curves and Analysis of the Overcontact Binaries MT Her and DO And (w/ S. J. Sanders & J. R. Hargis), 2005, *Bull. A.A.S.*, **37**, 1479. (abstract)
- 76 – Light Curves and Analysis of the Overcontact Binaries GN Boo, V608 Cas and V789 Cyg (w/ S. J. Sanders & J. R. Hargis), 2005, *Bull. A.A.S.*, **37**, 1478. (abstract)
- 75 – Artificial Intelligence and the Brave New World of Eclipsing Binaries (w/ E. Devinney, E. F. Guinan, M. DeGeorge, J. Giammarco, C. Alcock & S. Engle), 2005, *Bull. A.A.S.*, **37**, 1212. (abstract)
- 74 – **Binary Maker 3.0** - *Light Curve Synthesis Program*, 2004, (Contact Software: Norristown, PA)
- 73 – The Search for Variable Stars in the Open Cluster M11 (w/ J.R. Hargis & E. L. Sandquist), 2004, *Bull. A.A.S.*, **36**, 1380. (abstract)
- 72 – New Precision CCD Light Curves, Analyses, and Absolute Parameters for the Overcontact Binaries V842 Her and DZ Psc (w/ S.J. Sanders & J.R. Hargis), 2004, *Bull. A.A.S.*, **36**, 1369. (abstract)
- 71 – New Light Curves and Analysis of the Overcontact Binaries PP Lac and DK Sge (w/ S.J. Sanders & J.R. Hargis), 2004, *Bull. A.A.S.*, **36**, 1369. (abstract)
- 70 – Light Curves and Analyses of the Eclipsing Binaries IK Per and WY Tau (w/ S.J. Sanders, A.R. Bradstreet, J.R. Hargis), 2004, *Bull. A.A.S.*, **36**, 740. (abstract)
- 69 – The Eclipsing Binary On-Line Atlas (EBOLA) (w/ D.P. Steelman, S.J. Sanders, J.R. Hargis), 2004, *Bull. A.A.S.*, **36**, 740. (abstract)
- 68 – **Binary Maker 3.0** – An Interactive Graphics-Based Light Curve Synthesis Program Written in Java (w/ D.P. Steelman), 2002, *Bull. A.A.S.*, **34**, 1224. (abstract)
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- 67 – Photometry of the Eclipsing Classical Nova V1494 Aql: Light Curve Oscillations and Mapping the Variable Accretion Disk (w/ F.D. Jewett, D.P. Steelman, E.F. Guinan, J.C. Tracey, G.P. McCook), 2001, *Bull. A.A.S.*, **33**, 1400. (abstract)
- 66 – Studies of the Eclipses of the M-type Eclipsing Binary CM Dra: Surface Maps and Searches for Low-Mass Companions (w/ J.R. Hargis, J.S. Lake, G.R. Wilkinson, F.D. Jewett, J.M. Blair, E.F. Guinan, I. Ribas, G.P. McCook), 2000, *Bull. A.A.S.*, **32**, 1480. (abstract)
- 65 – V684 Mon: An Eclipsing Duo of Very Young B Stars in NGC 2264 (w/ J.R. Hargis, J.S. Lake, J.M. Blair, D.C. Eagles, F.D. Jewett), 1999, *Bull. A.A.S.*, **31**, 1485. (abstract)
- 64 – The LMC Eclipsing Binary EROS 1044: Fundamental Properties and Evolutionary States (w/ F.P. Maloney, E.L. Fitzpatrick, E.F. Guinan, Y.W. Kang, I. Ribas, L.E. DeWarf, J.F. Sepinsky), 1999, *Bull. A.A.S.*, **31**, 1483. (abstract)
- 63 - The LMC Eclipsing Binary HV 2274: Fundamental Properties and Comparison with Evolutionary Models (w/ I. Ribas, E.F. Guinan, E.L. Fitzpatrick, L.E. DeWarf, F.P. Maloney, P.A. Maurone, A. Gimenez, J.D. Pritchard), 2000, *Astrophys. J.*, **528**, 692.
- 62 - The Distance to the Large Magellanic Cloud from the Eclipsing Binary HV 2274 (w/ E.F. Guinan, E.L. Fitzpatrick, L.E. DeWarf, F.P. Maloney, P.A. Maurone, I. Ribas, J.D. Pritchard, A. Gimenez), 1998, *Astrophys. J. Letters*, **509**, L21-24.
- 61 - Eclipsing Binary Systems in the Magellanic Clouds: HV 2226 and HV 2241 (w/ F.P. Maloney, E.L. Fitzpatrick, E.F. Guinan, L.E. DeWarf, I. Ribas, A. Gimenez), 1998, *Bull. A.A.S.*, **30**, 1402 (abstract)
- 60 - Crossword Puzzles - A New Look at an Old Teaching Idea (w/ D.P. Steelman and A. Lewis), 1998, *Bull. A.A.S.*, **30**, 867. (abstract)
- 59 - Brown Dwarf Detected in the CM Dra Binary System (w/ E.F. Guinan, I. Ribas, M. Wolf, G.P. McCook), 1998, *Bull. A.A.S.*, **30**, 836. (abstract)
- 58 - CM Draconis (w/ E.F. Guinan, I. Ribas, M. Wolf, G.P. McCook), 1998, *IAU Circular*, **6864**, 1.
- 57 - Eclipsing Binaries as Astrophysical Laboratories: Evidence of a Jupiter-size Planet Orbiting the Short Period Binary CM Draconis (w/ E.F. Guinan, G.P. McCook and S.R. Wright), 1997, *Bull. A.A.S.*, **29**, 810. (abstract)
- 56 - HST & IUE Studies of Eclipsing Binaries in the Magellanic Clouds: Fundamental Properties and Distances (w/ E.F. Guinan, L.E. DeWarf, F.P. Maloney, E.L. Fitzpatrick, P.A. Maurone, I. Ribas, A. Gimenez), 1997, *Bull. A.A.S.*, **29**, 1280 (abstract)
- 55 - Photometric Searches for Planets: Evidence of a Transit Eclipse by a Jupiter-size Planet Orbiting the Eclipsing Binary CM Draconis (w/ E.F. Guinan, G.P. McCook and S.R. Wright), 1997, in *Detection and Study of Planets Outside the Solar System*, 23<sup>rd</sup> meeting of the IAU, Joint Discussion 13, 25-26 Aug 1997, Kyoto, Japan.
- 54 - Evidence of Angular Momentum Loss in the Eclipsing Binary VW Cephei (w/

- M.J. DeVita, E.F. Guinan and Z. Glownia), 1997, in *Stellar Evolution in Real Time*, 23<sup>rd</sup> meeting of the IAU, Joint Discussion 8, 22-23 Aug 1997, Kyoto, Japan.
- 53 - Analysis of the Complex Period Variations in the Contact Binary VW Cephei (w/ M.J. DeVita, J.R. Hargis, F.D. Jewett, J.S. Lake, E.F. Guinan, Z. Glownia), 1997, *Bull. A.A.S.*, **29**, 1280 (abstract)
- 52 - A New Observatory for Eastern College: A Dream Realized, 1996, *Bull. A.A.S.*, **28**, 1278. (abstract)
- 51 - Possible Planetary Transit Eclipse for CM Draconis (w/ E.F. Guinan, G.P. McCook, S. Wright, and J. Schneider) , 1996, *Bull. A.A.S.*, **28**, 1312. (abstract)
- 50 - Eclipsing Binaries as Tests of General Relativity: The Case of V541 Cygni (w/ J.A. Maley, E.F. Guinan, F.P. Maloney, J.J. Marshall, and G.P. McCook), 1996, *Bull. A.A.S.*, **28**, 756. (abstract)
- 49 - Eclipsing Binaries in the Magellanic Clouds: Continuing Study of Stellar Structure, Evolution, and Distance (w/ L.E. DeWarf, E.F. Guinan, F.P. Maloney, and P.A. Maurone), 1995, *Bull. A.A.S.*, **27**, 1344. (abstract)
- 48 - Eclipsing Binaries in the Magellanic Clouds: Fundamental Properties and Distances (w/ E.F. Guinan and L.E. DeWarf), 1996, in *The Origins, Evolution, and Destinies of Binary Stars in Clusters*, ed. E.F. Milone and J.C. Mermilliod, ASP. Conf. Ser. Vol 90, p. 196.
- 47 - Physical Properties of the Contact Binaries of the Old Open Cluster NGC 188 (w/ S. Baliunas and E.F. Guinan), 1996, in *The Origins, Evolution, and Destinies of Binary Stars in Clusters*, ed. E.F. Milone and J.C. Mermilliod, ASP. Conf. Ser. Vol 90, p. 135.
- 46 - Eclipsing Binaries as Astrophysical Laboratories: Probing the Internal Structure of the Moderate Mass Stars of CO Lacertae (w/ N.H. Volgenau, E.F. Guinan, F.P. Maloney, P.B. Etzel, and A. Giménez), 1995, *Bull. A.A.S.*, **27**, 878. (abstract)
- 45 - Observations and Analysis of the Contact Binary H235 in the Open Cluster NGC 752 (w/ E.F. Milone, C.R. Stagg, B.A. Sugars, J.R. McVean, S.J. Schiller, and J. Kallrath), 1995, *A.J.*, **109**, 359.
- 44 - The Light Curve of the  $\zeta$ -Aurigae-Type Eclipsing Binary AL Velorum (w/ D. Kilkenny, D. Holmgren, F. van Wyk, F. Marang, G. Roberts, A.W.J. Cousins, and J.E. Westerhuys), 1995, *The Observatory* **115**, 31.
- 43 - Eclipsing Binaries as Accurate Distance Indicators to Nearby Galaxies (w/ A. Gimenez, J.V. Clausen, E.F. Guinan, F.P. Maloney, J. Storm, and W. B. Tobin), 1994, *Experimental Astronomy* **5**, 181.
- 42 - Eclipsing Binaries in the Magellanic Clouds: Laboratories for Stellar Structure and Evolution (w/ L.E. DeWarf, E.F. Guinan, F.P. Maloney, and P.A. Maurone), 1994, *Bull. A.A.S.*, **26**, 1463. (abstract)
- 41 - Stellar Mergers and Acquisitions: The Formation and Evolution of W UMa Binaries (w/ E.F. Guinan), in *Interacting Binary Stars*, 1994, ed. A.W. Shafter, *ASP. Conf Ser.* **56**, 228.
- 40 - Gas Streams and Kinetic Heating on the Pre-Contact Binary V361 Lyrae
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- (w/H.L. Nations, E.F. Guinan, and J. Laurenzano), 1994, *Bull. A.A.S.*, **26**, 793. (abstract)
- 39 - IUE Observations of the Double Sun system ER Vul (w/ E.F. Guinan, L. E. DeWarf, and P.B. Etzel), 1993, *Bull. A.A.S.*, **25**, 1425. (abstract)
- 38 - The Hyperactive Double Sun of the Binary ER Vulpeculae (w/ L.E. DeWarf, E.F. Guinan, P.B. Etzel, and K. Olah), 1993, *Bull. A.A.S.*, **25**, 1425 (abstract)
- 37 - Eclipsing Binaries As Accurate Distance Indicators to Nearby Galaxies (w/ A. Gimenez, J.V. Clausen, E.F. Guinan, F.P. Maloney, J. Storm, and W. Tobin), in *Frontiers of Space Age and Ground-Based Astronomy*, 1993, (Kluwer: Dordrecht), in press.
- 36 - **Binary Maker 2.0** - *Light Curve Synthesis Program*, 1993, (Contact Software: Norristown, PA)
- 35 - Solution to the Light Curve of the Extragalactic Binary HV12634 (w/ P. Maurone, E.F. Guinan and F.P. Maloney), *Bull. A.A.S.*, **24**, 1225. (abstract)
- 34 - *Binary Maker 2.0* - Double Stars for the Masses, 1992, *Bull. A.A.S.*, **24**, 1125. (abstract)
- 33 - *Binary Maker 2.0* - An Interactive Graphical Tool for Preliminary Light Curve Analysis, 1992, in *Light Curve Modeling of Binary Stars*, ed. E.F. Milone, (Springer-Verlag: New York), p 146.
- 32 - ER Vulpeculae (w/ E.F. Guinan), 1991, *IAU Circular*, **5329**, 1.
- 31 - *Binary Maker 1.1* - An Interactive, Graphics-based Close Binary Light Curve Program, 1991, *Bull. A.A.S.* **23**, 1414. (abstract)
- 30 - Simultaneous *IUE* and Ground-based Observations of ER Vul over two orbits (w/ E.F. Guinan, P.B. Etzel, C. Ibanoglu, C.J. Ready, D.P. Steelman, and T.A. Thrash), 1991, *Bull. A.A.S.*, **23**, 1412. (abstract)
- 29 - The Physical and Geometrical Variabilities of Eta Orionis (w/ W. Lee, E. Sung, R.H. Koch, B.J. Hrivnak, M.F. Corcoran, R.J. Mitchell, and W. Blitzstein) 1991, in *New Frontiers in Binary Star Research*, eds. K.C. Leung and I.S. Nha, p. 239.
- 28 - New Solutions and Old Conflicts in the Eccentric Eclipsing Binary AS Camelopardis (w/ F.P. Maloney, E.F. Guinan, J. Mukherjee), 1991, *Bull. A.A.S.*, **23**, 879.
- 27 - VW Cephei - An Immaculate Perception? (w/ C.J. Baluta, E.F. Guinan, G.P. McCook, and K.A. Scollick). 1991, *Bull. A.A.S.*, **23**, 835. (abstract)
- 26 - The Rapid Apsidal Motion of the Short Period Eclipsing Binary CO Lac (w/ B.D. Deeney, E.F. Guinan, and F.P. Maloney). 1991, *Bull. A.A.S.*, **23**, 835. (abstract)
- 25 - The Apsidal Motion of V380 Cygni: Probing the Internal Structure of an Evolved, Massive Star (w/ E.F. Guinan, B.D. Deeney, and G.P. McCook). 1990, *Bull. A.A.S.*, **22**, 1223.(abstract)
- 24 - Binary Maker: A Code to Create Three-dimensional Models of Close Binaries. 1990, *Bull. A.A.S.*, **22**, 1293. (abstract)
- 23 - Gas Dynamics, Accretion and Evolution of Algols: Initial Results for Three Representative Systems (w/ A. Gimenez, R. Gonzalez-Riestra, E.F. Guinan,

- Kondo, G. McCluskey, G.P. McCook, J.D. Dorren, S. Johansson, and J. Sahade). 1990, in *Evolution in Astrophysics: IUE Astronomy in the Era of New Space Missions*, ESA SP-310, ed. E. Rolfe, p. 383.
- 22 - Deciphering Long-Term Photospheric and Chromospheric Activity on the Contact Binary VW Cephei (w/ E.F. Guinan). 1990, in *Active Close Binaries*, NATO Advanced Studies Institute, eds. C. Ibanoglu and I. Yavuz, (Dordrecht: Kluwer), p. 467.
- 21 - Analysis and Solution of the Light and Radial Velocity Curves of the Contact Binary TY Bootis (w/ E.F. Milone, G. Groisman and D.J.I. Fry). 1990, *Ap.J.*, **370**, 677.
- 20 - A Mysterious UV Emission Feature on VW Cephei (w/ E.F. Guinan). 1989, *Bull. A.A.S.*, **21**, 1082. (abstract)
- 19 - The Shallow Contact System Binary TY Bootis (w/ G. Groisman and E.F. Milone), 1988, *R.A.S. Canada Journal*, 82, No. 5/Oct, p. 282. (abstract)
- 18 - Stalking the Migrating Spots and Plages on VW Cephei (w/ E.F. Guinan). 1988, *Bull. A.A.S.*, **20**, 1022. (abstract)
- 17 - Evidence of Magnetic Activity and Angular Momentum Loss in VW Cephei (w/ Z. Glowina and E.F. Guinan). 1988, *Bull. A.A.S.*, **20**, 1022. (abstract)
- 16 - Stellar Mergers from Low-mass Binaries (w/ E.F. Guinan). 1988, *Bull. A.A.S.*, **20**, 736. (abstract)
- 15 - Mapping the Surface Activity on the W UMA-type System VW Cephei (w/ E.F. Guinan). 1988, in *A Decade of UV Astronomy with the IUE Satellite*, p. 303.
- 14 - Kinematic Clues to the Origin and Evolution of Low-mass Contact Binaries (w/ E.F. Guinan). 1988, in *Formation and Evolution of Low-mass Stars*, NATO Advanced Studies Institute, eds. A.K. Dupree and M.T. Lago, (Dordrecht: Reidel), p. 345.
- 13 - Phase Dependent Variations in the UV Line Emissions of VW Cephei (w/ E.F. Guinan, M.D. Lallo, and G.P. McCook). 1987, *Bull. A.A.S.*, **19**, 1086. (abstract)
- 12 - The W Ursae Majoris Systems: The Senior Citizens of Close Binaries (w/ E.F. Guinan and C.R. Robinson). 1987, *Bull. A.A.S.*, **19**, 1085. (abstract)
- 11 - Long-term Surface Activity on the W UMA-type Eclipsing Binary VW Cephei (w/ E.F. Guinan and G.P. McCook). 1987, *Bull. A.A.S.*, **18**, 977. (abstract)
- 10 - Starspots and Surface Activity on VW Cephei (w/ E.F. Guinan, G.P. McCook, K.R. Garlow, and J.P. McMullin). 1987, *Bull. A.A.S.*, **18**, 984. (abstract)
- 9 - V677 Centauri: Completely Eclipsing and Over-contact: But A- or W- type? (w/ P. Kilmartin and R.H. Koch). 1987, *Ap. J.*, **319**, 334.
- 8 - HD 47755, A New Eclipsing Binary (w/ B.J. Hrivnak, R.H. Koch, P.M. Perry, and R.J. Pfeiffer). 1986, *A. J.*, **91**, 590.
- 7 - K-Type Overcontact Binaries. 1985, *Ap. J. Suppl.*, **58**, 413.
- 6 - *IUE* Spectroscopy, Visible Band Photometry, and Polarimetry of HD 47732 (V641 Monocerotis) (w/ W. Blitzstein, B.J. Hrivnak, R.H. Koch, P.M. Perry, and R.J. Pfeiffer). 1985, *Ap. J.*, **288**, 731.
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- 5 - *IUE Spectroscopy, Visible Band Photometry, and Polarimetry of V641 Mon* (w/ Blitzstein, B.J. Hrivnak, R.H. Koch, P.M. Perry, and R.J. Pfeiffer). 1982, NASA Con. Pub. 2238, *Advances in Ultraviolet Astronomy: Four Years of IUE Research*, eds. Y. Kondo, J.M. Mead, and R.D. Chapman, p. 513.
- 4 - *IUE Spectra of the Hot Close Binary V Puppis* (w/ R.H. Koch, P.M. Perry, and R.J. Pfeiffer). 1981, *Publ. Astron. Soc. Pac.*, **93**, 621.
- 3 - *Analyses of a Light Curve of V523 Cassiopeiae*. 1981, *A. J.*, **86**, 98.
- 2 - *Multifilter Photometry and Polarimetry of Nova Cygni 1978 (V1668 Cygni)* (w/ W. Blitzstein, A.P. Galatola, B.J. Hrivnak, A.B. Hull, R.H. Koch, and R.J. Pfeiffer). 1980, *Publ. Astron. Soc. Pac.*, **92**, 338.
- 1 - *Intrinsic Variability of Eta Ori* (w/ B.J. Hrivnak and R.H. Koch). 1980, *Bull. A.A.S.*, **12**, 452. (abstract)