

**Curriculum Vitae**  
**David J. Helfand**  
Columbia Astrophysics Laboratory  
550 West 120<sup>th</sup> Street, Mail Code 5233  
New York, New York 10027  
(212) 854-6876  
E-MAIL: [DJH@ASTRO.COLUMBIA.EDU](mailto:DJH@ASTRO.COLUMBIA.EDU)

## **Education**

1977 University of Massachusetts, Ph.D., Astronomy  
1977 University of Massachusetts, M.S., Physics  
1973 Amherst College, B.A. (MAGNA CUM LAUDE)

## **Professional History**

### *Quest University Canada*

2018 – present President Emeritus  
2015 – 2015 President, Quest University Foundation  
2009 – 2015 Board of Directors, Quest University Canada Foundation  
2008 – 2015 Board of Governors, Quest University Canada  
2008 – 2015 President & Vice Chancellor  
2005 – present Founding Tutor

### *Columbia University in the City of New York*

2017 – 2018, Chair, Department of Astronomy  
2002 – 2011,  
1994 – 1997,  
1986 – 1992  
2003 – 2009, Co-Director, Columbia Astrophysics Laboratory  
1994 – 1996,  
1986 – 1992  
1998 – 1999 Sackler Distinguished Visiting Astronomer, Cambridge University  
1992 – 1993 Visiting Scientist, Cambridge University  
1992 – present Professor of Astronomy  
1987 – 1992 Professor of Physics  
1983 Visiting Scientist, Danish Space Research Institute  
1982 – 1987 Associate Professor of Physics  
1978 – 1982 Assistant Professor of Astronomy  
1977 – 1978 Research Associate, Department of Physics

### *University of Massachusetts, Amherst, Massachusetts*

1973 – 1977 Research Assistant, Department of Physics and Astronomy  
1971 – 1973 Research Assistant, Five College Radio Astronomy Observatory

## Columbia University Committees & Appointments

DJH 2

### *Department of Astronomy*

2021 – 2022 Colloquium Committee  
2020 – 2021 Graduate Admissions Committee  
2016 – 2019 Communications Officer  
2015 – 2017 Post Doc Liaison  
2001 – 2002 Director of Graduate Studies, GSAS  
2001 – 2002 Faculty Search Committee  
1999 – 2002 Director of Undergraduate Studies, Columbia College  
2017 – 2018 Chair, Department of Astronomy  
2002 – 2011  
1994 – 1997  
1986 – 1992  
1995 – 2000 Colloquium Committee; Chair (1999 – 2000)  
1994 – 2002 Graduate Admissions Committee; Chair (1999 – 2002)  
1984 – 1985 Ad Hoc Committee on Future of Astronomy at Columbia, Chair

### *Department of Physics*

2001 – 2002 Faculty Search Committee  
1990 – 1992 Curriculum Committee  
1988 – 1992 Executive Committee  
1987 – 1992 Contracts and Grants Committee  
1985 – 1992 Committee on Teaching, Chair  
1986 – 1989 Departmental Service Committee  
1986 – 1989 Building Committee  
1983 – 1989 Computer Committee  
1983 – 1992 Undergraduate Committee  
1983 – 1992 Major Advisor

### *Columbia Astrophysics Laboratory*

1994 – 1998 Computing Committee, Chair  
2003 – 2009 Co-Director  
1994 – 1996  
1986 – 1992

### *Faculty of Arts & Sciences*

2017 – 2018 Uris Space Committee  
2016 – 2017 EPPC-PPC Joint Committee on Teaching Excellence and Tenure  
2015 – 2018 Educational Planning and Policy Committee  
2015 – 2017 Subcommittee on Innovative Practices in Teaching and Learning, Chair  
2006 – 2008 University Development and Alumni Relations Committee  
2005 – 2007 Task Force for Diversity in the Sciences and Engineering  
2004 – 2007 Chairs Steering Committee  
2004 – 2007 Fellow, Heyman Center for the Humanities

2002 – 2003 Vice Presidential Search Committee  
2001 – 2003 Advisory Committee, Dept. of Ecology, Evolution, & Environmental Biology  
1999 – 2002 Executive Committee of the Faculty of Arts & Sciences, Chair (2000 – 2001)  
2004 – 2007 Faculty Budget Group  
1999 – 2002  
1999 – 2001 Planning and Budgeting Committee  
1997 – 2003 UDAR Review Committee  
1996 – 1998 Society of Fellows, Board member & Program Planning Committee  
1996 – 1997 Earth Institute Undergraduate Education Committee  
1995 – 1999 Academic Review Committee  
1988 – 1992 Faculty Planning Committee  
1987 – 1992 Science Chairs Committee  
1986 – 1992 Steering Committee, A&S Chairs Group

*Columbia College*

2022 – present Faculty Committee on the Core Curriculum  
2016 – 2023 Frontiers of Science, Chair  
2016 – 2023 Committee on the Core Curriculum  
2016 – 2023 Committee on Science Instruction  
2015 – present Phi Beta Kappa selection committee  
2005 – 2010  
2003 – 2007 Committee on Honors  
2000 – 2002  
2001 – 2011 co-Chair, Frontiers of Science, Core Curriculum  
1994 – 1998 Oxbridge Exchange Program, Selection Committee  
1994 – 1998 Kellett Fellowship to the University of Cambridge, Selection Committee  
1995 – 1996 First-year/Sophomore Advisor  
1994 – 2002 Rabi Scholars Committee; co-Chair (1999 – 2002)  
1990 – 1991 Faculty Associate, Shapiro Hall  
1989 – 1992 Committee on Science Instruction, Chair  
1986 – 1991 Freshman Advisor  
1986 – 1987 Bicentennial Committee  
1984 – 1987 Committee on Undergraduate Residence Life  
1984 – 1987 Board of Directors, Double Discovery Center  
1984 – 1987 Professor-in-Residence  
1982 – 1986 Committee on Instruction  
1982 – 1983 Ad Hoc Committee on Science in a Liberal Curriculum, Chair

*Columbia University*

2022 – present Provost’s Advisory Committee on the Libraries  
2019 – present Provost’s Committee on the Scholarship of Learning  
2016 – present Provost’s Advisory Committee on Innovative Teaching and Learning  
2016 – 2020 Publications Committee, Columbia University Press  
2016 – 2018 Advisory Committee on Undergraduate Writing  
2008 – 2010 Faculty Advisory Committee on the Arts Initiative

2004 – 2010 Environmental Management System Steering Committee  
2001 – 2003 Biosphere 2 Faculty Council, Co-Chair  
1989 – 1997 University Panel on Sexual Harassment  
1988 – 1989 Search Committee for Chair of Radiology, College of Physicians & Surgeons  
1987 – 1990 Council on Undergraduate Life  
1987 – 1992 Provost’s Task Force for a Columbia Telescope, Chair

### **Professional Committee & Appointments**

#### *American Astronomical Society*

2020 – present National Osterbrock Leadership Program Steering Committee  
2018 – present Coordinator, National Astronomy Chairs & Program Directors  
2018 – 2019 Task Force on Diversity and Inclusion in Graduate Education  
2016 – 2017 Task Force on Education  
2016 – 2018 Investment Advisory Committee  
2016 – 2017 Task Force on Society Governance, Chair  
2014 – 2018 Budget Committee  
2014 – 2015 Past-President; Executive Committee  
2012 – 2014 President  
2012 – 2014 US National Committee for the International Astronomical Union, member  
2011 – 2012 President-elect  
2005 – 2008 Russell Lectureship Committee; Chair, 2007  
2004 – 2005 Chair, AAS Second Century Lecturer Committee  
2000 – 2003 AAS Committee on the Status of Women in Astronomy  
1999 – 2005 AAS Second Century Lecturer Committee  
1999 – 2001 AAS Second Century Fund Committee  
1999 – 2000 Education Office Review Committee, Chair  
1998 – 2001 Investment Advisory Committee  
1996 – 1999 Councilor  
1988 – 1989, Committee on Astronomy & Public Policy  
2011 – 2015  
1987 – 1991 AAS Representative, U.S. National Committee for the IAU  
1987 – 1990 Associate Editor, Astrophysical Journal (Letters)  
1982 – 2002 Harlow Shapley Visiting Lecturer  
1982, 1987, 1995 Small Grants Review Committee

#### *High Energy Astrophysics Division*

1987 – 1988 Chair  
1986 – 1987 Vice Chair

#### *Associate Universities Incorporated*

2022 – present Operations and Administration Committee  
2022 – present Audit Committee  
2021 – 2022 Governance Committee

2021 – present Board Member

*American Institute of Physics*

2018 – present Chair, Board of Directors  
2018 – present Chair, Board of Managers, AIP Publishing  
2018 – present Investment Advisory Committee

2018 – present Compensation Committee  
2018 – present Audit Committee  
2018 – present Membership Committee  
2017 – present Board of Directors  
2017 – present Finance Committee  
2017 – present Nominations & Governance Committee

*Science Counts*

2015 – present Treasurer & Executive Committee  
2014 – present Board member

*Large Synoptic Survey Telescope, Inc.*

2017 - present Finance Committee

*New York Astronomical Society*

1999 – 2009 Institutional Representative  
1986 – 1990 President  
1981 – 1986 Vice President  
1984 – 1992 Travel Awards Committee

*New York Astronomical Corporation*

1999 – 2005 Board member  
1986 – 1990 Chairman of the Board  
1981 – 1986 Vice President  
1978 – 1981 Institutional Representative

**Scientific Organizing Committees**

Chair, IAU Symposium No. 125

Member, IAU Colloquium No. 101

19th Texas Symposium on Relativistic Astrophysics  
COSPAR/IAU Symposium on the Physics of Compact Objects  
Santa Cruz Summer Workshop 1989  
IAU Symposium No. 148 on the Magellanic Clouds, Australia 1990  
Los Alamos Workshop on Isolated Pulsars, 1992

International Symposium on X-Ray Astronomy, Tokyo, Japan  
 34th COSPAR Meeting, Symposium on High Energy Studies of Supernova Remnants and  
 Neutron Stars, Houston, 2002  
 NRAO Legacy Projects Workshop, Socorro, NM, 2

### **Advisory Committees**

- 2020 – 2022 Amherst College 50<sup>th</sup> Reunion Committee
- 2020 Review Committee, Yale-National University of Singapore Core Curriculum
- 2019 NASA Hubble Fellowship Program, Chair
- 2018 – 2022 External Examiner, Hong Kong University Common Core Curriculum
- 2016 – present Advisor, Black Mountain College, Wales, UK
- 2016 – 2020 Advisory Committee, Dunlap Institute for Astronomy & Astrophysics
- 2016 – 2018 NASA Keck Time Allocation Committee, Chair
- 2016 NASA Chandra Observatory Time Allocation Committee, Panel Chair
- 2014 – 2019 Advisor, New Model in Technology and Engineering University, UK
- 2011 Visiting Committee, Five College Astronomy Department
- 2007 – 2009 Chair, Scientific Advisory Group for EVLA (SAGE), NRAO
- 2005 – 2007 Quest University Canada, Curriculum Development Committee
- 2003 – 2010 Center for Inquiry–Metro New York Advisory Board
- 2003 Chair, Hubble Fellows Selection Committee
- 2002 – 2004 Phi Beta Kappa Annual Book Award Selection Committee
- 1999 – 2002 Harvard-Smithsonian Center for Astrophysics Visiting Committee
- 1997 – 2001 Editorial Committee, Annual Reviews of Astronomy & Astrophysics
- 1996 – 1997 Structure & Evolution of the Universe Subcommittee of the Committee on Space  
 Astronomy & Astrophysics
- 1996 National Academy of Sciences Task Group on Space Astronomy and Astrophysics
- 1996 NASA Senior Review
- 1996 Space Telescope Advisory Committee
- 1995 – 1997 Hayden Planetarium Exhibit Design Committee
- 1992 – 1993, 1997 American Museum of Natural History, Hayden Planetarium Visiting Committee
- 1992 – 1993 UK Science & Engineering Research Council, XMM Review Panel
- 1991 – 1993 NASA Science Operations Management Operations Working Group
- 1991 – 1992 NASA Astrophysics Data System Advisory Committee
- 1991 – 1994 NASA ASCA Users Group
- 1991 – 1992 NASA High Energy Astrophysics Science Archive Research Center Users Group
- 1991 – 1994 American Institute of Physics Public Information Committee
- 1989 – 1990 National Academy of Sciences Astronomy Survey Committee Panel Member for:
  - High Energy from Space
  - Policy
  - Computing
- 1988 – 1994 International Science Advisory Group, Japanese ASCA Mission
- 1987 – 1988 NASA Supernova Working Group, Executive Committee
- 1986 – 1989 National Academy of Sciences Space Science Board, Committee on Space Astronomy  
 and Astrophysics

1982 – 1985 National Radio Astronomy Observatory, User’s Committee  
1982 – 1985 National Astronomy & Ionosphere Center Advisory Committee

## Awards

2007 deBary Award for Service to the Core Curriculum  
2002 Great Teacher Award, Society of Columbia Graduates  
2002 Raymond and Beverly Sackler Lecturer, University of California, Berkeley  
2001 Columbia University Presidential Teaching Award  
1998 – 1999 Raymond and Beverly Sackler Distinguished Visiting Astronomer, University of Cambridge  
1983 – 1987 Alfred P. Sloan Foundation Fellow  
1983 Distinguished GS Teaching Award, Columbia University,  
1970 Porter Prize in Astronomy, Amherst College

## Professional and Honor Societies

1973 – present Sigma Xi  
1976 – present American Astronomical Society  
1978 – present Astronomical Society of New York  
1979 – present New York Academy of Sciences  
1982 – present International Astronomical Union  
1985 – present Phi Beta Kappa  
1996 – present Astronomical Society of the Pacific  
2004 – present Fellow, Committee for Skeptical Inquiry  
2016 – present PEN America  
2020 – present Legacy Fellow, American Astronomical Society

# David J. Helfand Publications

## ***Refereed Journals (171)***

White, R.L., Long, K.S., Blair, W.P., Becker, R.H., Helfand, D.J., & Winkler, P.F., 2019, "A New Deep JVLA Survey of M33," *ApJS* 241, 37.

Helfand, D.J., White, R.L., and Becker, R.H. 2015 "The Last of FIRST: The Final Catalog and Source Identifications," *ApJ* 801, 26.

Harrison, F.A. et al. 2013, "The Nuclear Spectroscopic Telescope Array (NUSTAR) High Energy Mission," *ApJ* 770, 103.

Nithyanandan, T., Helfand, D.J., White, R.L., and Becker, R.H. 2011, "Variable and Transient Radio Sources in the FIRST Survey," *ApJ* 742, 49.

Tullmann, R. et al. 2011, "The Chandra ACIS Survey of M33 (ChASEM33): The Final Source Catalog," *ApJS* 193, 31.

Becker, R.H., Helfand, D.J., White., R.L., & Proctor, D.D. 2010, "Variable Radio Sources in the Galactic Plane," *AJ* 140, 157.

Long, K.S. et al. 2010, "The Chandra ACIS Survey of M33: X-ray, Optical, and Radio Properties of the Supernova Remnants," *ApJS* 187, 495.

Eckart, M.E., McGreer, I.D., Stern, D., Harrison, F.A., & Helfand, D.J. 2010, "A Comparison of X-ray and Mid-Infrared Selection of Obscured Active Galactic Nuclei," *ApJ* 708, 584.

Rau, A. et al. 2009, Exploring the Optical Transient Sky with the Palomar Transient Factory," *PASP* 121, 1334.

McGreer, I.D., Helfand, D.J., & White, R.L. 2009, "Radio-Selected Quasars in the Sloan Digital Sky Survey," *AJ* 138, 1925.

Slane, P., Helfand, D.J., Reynolds, S.P., Gaensler, B.M., Lemiere, A., & Wang, Z. 2008, "The Infrared Detection of the Pulsar Wind Nebula in the Galactic Supernova Remnant 3C58," *ApJ* 676, 33.

Plucinsky, P.P. et al. 2008, "The Chandra ACIS Survey of M33: A First Look," *ApJS* 174, 366.

Camilo, F., Ransom, S.M., Penalver, J., Karastergiou, A., van Kerkwijk, M., Durant, M., Halpern, J.P., Reynolds, J., Thum, C., Helfand, D.J., Zimmerman, N., & Cognard. I. 2007, "The Variable Radio-to-X-ray Spectrum of the Magnetar XTE J1810-197'," *ApJ* 669, 561.

Glikman, E., Helfand, D.J., White, R.L., Becker, R.H., Gregg, M.D., and Lacy, M. 2007, “The FIRST-2MASS Red Quasar Survey”, ApJ 667, 673.

Morton, T.D., Slane, P., Borkowski, K.J., Reynolds, S.P., Helfand, D.J., Gaensler, B.M., & Hughes, J.P. 2007, “Observations of X-rays and Thermal Dust Emission from the Supernova Remnant Kes 75,” ApJ 667, 219.

Helfand, D.J., Gotthelf, E.V., Halpern, J.P., Camilo, F., Semler, D.R., Becker, R.H., and White, R.L. 2007, “Discovery of an Energetic Young Pulsar Candidate and Wind Nebula Associated with the TeV Gamma-ray Source HESS J1813-178”, ApJ 665, 1297.

deVries, W.H., Hodge, J.A., Becker, R.H., White, R.L., and Helfand, D.J. 2007, “Star Formation in Low Radio Luminosity AGN from the Sloan Digital Sky Survey”, AJ 134, 457.

Camilo, F., Cognard, I., Ransom, S.M., Halpern, J.P., Reynolds, J., Zimmerman, N., Gotthelf, E.V., Helfand, D.J., Demorest, P., Theureau, G. & Backer, D.C. 2007, “The Magnetar XTE J1810-197: Variations in Torque, Radio Flux Density and Pulse Profile Morphology”, ApJ 663, 497.

Helfand, D.J., Chatterjee, S., Brisken, W., Camilo, F., Reynolds, J., van Kerkwijk, M.H., Halpern, J.P., & Ransom, S.M. 2007, “Measurement of the Velocity of the Radio Magnetar XTE AXP 1810–197”, ApJ 662, 1198.

Gotthelf, E.V., Helfand, D.J., and Newburgh, L. 2007, “A Shell of Thermal Emission Surrounding the Young Crab-like Remnant 3C58”, ApJ 654, 267.

White, R.L., Becker, R.H., Helfand, D.J., Glikman, E. and deVries, W. 2007 “Signals from the Noise: Image Stacking for Quasars in the FIRST Survey”, ApJ 654, 99.

McGreer, I.D., Becker, R.H., Helfand, D.J., and White, R.L. 2006, “Discovery of a  $z = 6.1$  Radio-Loud Quasar in the NDWFS”, ApJ 652, 157.

Petric, A., Telis, G.A., Paerels, F. P. and Helfand, D.J. 2006, ”A Direct Upper Limit on the Density of Cosmological Dust from the Absence of an X-ray Scattering Halo around the  $z = 4.3$  QSO1508+5714,”ApJ 651, 41.

Reviglio, P. & Helfand, D.J. 2006, “On Radio-bright Active Galactic Nuclei in a Complete Spectroscopic Redshift Survey,”ApJ 650, 717.

Camilo, F., Ransom, S.M., Halpern, J.P., Reynolds, J., Helfand, D.J., Zimmerman, N., and Sarkissian, J. 2006, “Transient Pulsed Radio Emission from a Magnetar”, Nature 442, 892.

Eckart, M.E., Stern, D., Helfand, D.J., Harrison, F.A., Mao, P., and Yost, S.A. 2006, “The Serendipitous Extragalactic X-ray Source Identification (SEXSI) Program: III. Optical Spectroscopy,” ApJS 165, 19.

Helfand, D.J., Becker, R.H., White, R.L., Fallon, A., and Tuttle, S. 2006, "MAGPI: A Multi-Array Galactic Plane Imaging Survey," AJ 131, 2525.

Glickman, E., Helfand, D.J., and White, R.L. 2006, "A Quasar Infrared Composite Spectrum," ApJ 640, 579.

Halpern, J.P., Gotthelf, E.V., Becker, R.H., Helfand, D.J., and White, R.L. 2005, "Discovery of Radio Emission from Transient Anomalous X-ray Pulsar XTE J1810-197," ApJ Letters, 632, L29.

White, R.L., Becker, R.H., and Helfand, D.J. 2005, "New Catalogs of Radio Sources in the Galactic Plane," AJ 130, 586.

Giveon, U., Becker, R.H., Helfand, D.J., and White, R.L. 2005, "A New Radio Catalog of Compact HII Regions in the Milky Way II. The 1.4 GHz Data", AJ 130, 156.

Eckart, M.E., Laird, E.S., Stern, D., Mao, P.H., Helfand, D.J., & Harrison, F.A. 2005, "The Serendipitous Extragalactic X-ray Source Identification (SEXSI) Program: II. Optical Imaging," ApJS 156, 35.

Stern, D., Yost, S., Eckart, M., Harrison, F., Helfand, D.J., & Djorgovski, S.G. 2005, "A Galaxy at z=6.545: Constraints on the Epoch of Reionization," Ap 619, 12.

Giveon, U., Becker, R.H., Helfand, D.J. & White, R.L. 2005, "A New Catalog of Compact HII Regions in the Milky Way," AJ 129, 348.

Chang, T-C., Refregier, A. and Helfand, D.J. 2004, "Weak Lensing by Large- Scale Structure with the FIRST Radio Survey," ApJ 617, 794.

Slane, P., Helfand, D.J., van der Swaluw, E., & Murray, S.S. 2004, "New Constraints on the Structure and Evolution of the Pulsar Wind Nebula 3C58," ApJ 616, 403.

Halpern, J.P., Gotthelf, E.V., Camilo, F., Helfand, D.J., & Ransom, S.M. 2004, "X-ray, radio, and Optical Observations of the putative pulsar in the Supernova Remnant CTA 1," ApJ 612, 398.

Hands, A.D.P., Warwick, R.S., Watson, M.G., & Helfand, D.J. 2004, "X-ray Source Populations in the Galactic Plane," MNRAS 351, 31.

Glikman, E., Gregg, M.D., Lacy, M., Helfand, D.J., Becker, R.H., & White, R.L. 2004, "FIRST- 2MASS Sources Below the APM Detection Threshold: A Population of Highly Reddened Quasars," ApJ 607, 60.

de Vries, W.H., Becker, R.H., White, R.L., & Helfand, D.J 2004, "Optical Properties of Faint FIRST Variable Radio Sources," AJ 127, 2565.

Harrison, F.A., Eckart, M.E., Mao, P.H., Helfand, D.J., & Stern, D. 2003, "The Serendipitous Extragalactic X-ray Source Identification (SEXSI) Program: I. Characteristics of the Hard X-ray Sample," ApJ 596, 944.

Helfand, D.J., Agueros, M. and Gotthelf, E.V. 2003, "An X-ray Image of the Composite SNR G16.7+0.1," ApJ 592, 941.

White, R.L., Helfand, D.J., Becker, R.H., Gregg, M.D., Postman, M., Lauer, T., & Oegerle, W. 2003, "An I-Band Selected Sample of Radio-Emitting Quasars," AJ 126, 706.

Blanton, E.L., Gregg, M.D., Helfand, D.J., and Becker, R.H. 2003, "Discovery of a High-Redshift ( $z=0.96$ ) Cluster of Galaxies Using a FIRST Wide- Angle Tailed Radio Source," AJ 125, 1635.

Helfand, D.J., Collins, B.F., and Gotthelf, E.V. 2003, "Chandra X-ray Imaging Spectroscopy of SNR Kes 75," ApJ. 582, 783.

McMahon, R.G., Helfand, D.J., White, R.L., and Becker, R.H. 2002 "Optical Counterparts for 70,000 Radio Sources: APM Identifications for the FIRST Radio Survey," ApJS, 143, 1.

Lacy, M., Gregg, M.D., Becker, R.H., White, R.L., Glikman, E., Helfand, D.J., Lilje, P.B., and Gates, E.L. 2002, "A Gravitationally-Lensed FeLoBAL Quasar," AJ, 123, 2925.

Slane, P.O., Helfand, D.J., and Murray, S.S. 2002, "New Constraints on Neutron Stars Cooling From Chandra observations of 3C58," ApJ. 571, L45.

Stern, D.A., et al. 2002, "Chandra Detection of a Type II Quasar at  $z = 3.288$ ," ApJ, 568, 71.

Gregg, M.D., Lacy, M., White, R.L., Glikman, E., Helfand, D.J., Becker, R.H., and Brotherton, M.S. 2002, "The Reddest Quasars," ApJ. 564, 133.

Becker, R.H. et al. 2001, "The FIRST Bright Quasar Survey III: The South Galactic Cap," ApJS 135, 227.

Helfand, D.J., Gotthelf, E.V., and Halpern, J.P. 2001, "The Vela Pulsar and its Synchrotron Nebula," ApJ. 556, 380.

Helfand, D.J. and Moran, E.C. 2000, "The Hard X-ray Luminosity of OB Star Populations: Implications for the Contribution of Star Formation to the Cosmic X-ray Background," ApJ. 554, 27.

Blanton, E.L., Gregg, M.D., Helfand, D.J., Becker, R.H., and Leighly, K.M. 2001, "The Environments of a Complete, Moderate Redshift Sample of FIRST Bent-Double Radio Sources," AJ 121, 2915.

Leighly, K.M., Halpern, J.P., Helfand, D.J., Becker, R.H., and Impey, C.D. 2001, "The First Observations of the Second Brightest Quasar," AJ 121, 2889.

Halpern, J.P., Camilo, F., Gotthelf, E.V., Helfand, D.J., Kramer, M., Lyne, A.G., Leighly, K.M., and Eracleous, M. 2001, "PSRJ2229+6114: Discovery of an Energetic pulsar in the Error Box of the EGRET Source 3EG J2227+6122," *ApJ Letters* 552, L125.

Helfand, D.J., Stone, R.P.S., Willman, B., White, R.L., Becker, R.H., Price, T., Gregg, M., and McMahon, R.G. 2000, "Long-Term Variability of Radio- Selected Quasars from the FIRST Survey," *AJ* 121, 1872.

Halpern, J.P., Gotthelf, E.V., Leighly, K.M., and Helfand, D.J. 2000, "A Possible X-ray and Radio Counterpart of the High-Energy Gamma-Ray Source 3EG J2227+6122," *Ap.J.* 547, 323.

Blanton, E.L., Gregg, M.D., Helfand, D.J., Becker, R.H. and White, R.L. 2000, "FIRST Bent-Double Radio Sources: Tracers of High Redshift Clusters," *Ap.J.* 531, 118.

White, R.L. et al. 2000 "The FIRST Bright Quasar Survey II: 60 Nights and 1200 Spectra Later," *ApJS* 126, 133.

Moran, E.C., Lehnert, M.D., and Helfand, D.J. 1999 "X-rays from NGC3256: High Energy Emission in Starburst Galaxies and Their Contribution to the Cosmic X-ray Background," *Ap.J.* 526, 649.

Blandford, R.D. and Helfand, D.J. 1999 "Will GRB 990123 Perform an Encore," *MNRAS* 305, L45.

Helfand, D.J., Schnee, S., Becker, R.H., White., R.L., and McMahon, R.G. 1999, "The FIRST Unbiased Survey for Radio Stars", *A.J.* 117, 1568.

Odewahn, S.C. et al. 1998, "The Host Galaxy of the Gamma-Ray Burst 971214," *Ap.J.(Letters)* 509, L50.

Lozinskaya, T.A., Silchenko, O.K., Helfand, D.J., and Goss, W.M. 1998, "Resolving the Source of X-rays in the Local Group Dwarf IC1613: X-ray, Radio, and Optical Observations of a Luminous Supernova Remnant," *A.J.*, 116, 2328.

Halpern, J.P., Thorstensen, J.R., Helfand, D.J., and Costa, E. 1998, "Optical Afterglow of the Gamma-Ray Burst GRB971214", *Nature* 393, 41.

Schechter, P., Gregg, M.D., Becker, R.H., Helfand, D.J., and White, R.L. 1998, "The First FIRST Gravitationally Lensed Quasar: FBQ 0951+2635," *A.J.*, 115, 1371.

Buchalter, A., Helfand, D.J., Becker, R.H., and White, R.L. 1998, "Constraining  $\Omega$  with the Angular Size-Redshift Relation of Double-Lobed Quasars in the FIRST Survey," *Ap.J.*, 494, 479.

Moran, E.C., and Helfand, D.J. 1997, "The 3-53 keV Spectrum of the Quasar 1508+5714: X-rays from Z = 4.3," *Ap.J. (Letters)*, 484, L95.

- Oppenheimer, B.R., Helfand, D.J., and Gaidos, E.J. 1997, "A Survey of the Einstein IPC Database for Extended X-ray Sources," *A.J.*, 113, 2134.
- Becker, R.H., Gregg, M.D., White, R.L., Hook, I.M., McMahon, R.G., and Helfand, D.J. 1997, "The First Radio-Loud Broad Absorption Line QSO and Evidence for a Hidden Population of Quasars," *Ap.J. (Letters)*, 479, L73.
- Refregier, A., Helfand, D.J., and McMahon, R.G. 1997, "Detailed Analysis of the Cross-Correlation Between the X-ray Background and Foreground Galaxies," *Ap.J.*, 477, 58.
- White, R.L., Becker, R.H., Helfand, D.J. and Gregg, M.D. 1997, "A Catalog of 1.4 GHz Radio Sources from the FIRST Survey," *Ap.J.*, 475, 479.
- Cress, C.M., Helfand, D.J., Becker, R.H., Gregg, M.D., and White, R.L. 1996, "The Angular Two-Point Correlation Function for the FIRST Radio Survey," *Ap.J.*, 473, 7.
- Moran, E.C., Halpern, J.P., and Helfand, D.J. 1996, "Classification of IRAS-Selected X-ray Galaxies in the ROSAT All-Sky Survey," *Ap.J.*, 461, 127.
- Blanton, E.L. and Helfand, D.J. 1996, "ASCA Observations of the Composite Supernova Remnant G29.7-0.3," *Ap.J.*, 470, 961.
- Hamilton, T.T., Gotthelf, E.V., and Helfand, D.J. 1995, "The Absence of X-ray Flashes from Nearby Galaxies and the Gamma-Ray Burst Distance Scale," *Ap.J.*, 466, 795.
- Gotthelf, E.V., Hamilton, T.T., and Helfand, D.J. 1995, "The Einstein Observatory Detection of Faint X-ray Flashes," *Ap.J.* 466, 779.
- Gregg, M.D., Becker, R.H., White, R.L., Helfand, D.J., McMahon, R.G., and Hook, I.M. 1996, "The FIRST Bright Quasar Survey," *A.J.*, 112, 407.
- Harrus, I.M., Hughes, J.P., and Helfand, D.J. 1996, "Discovery of an X-ray Synchrotron Nebula Associated with the Radio Pulsar PSR B1853+01 in the Supernova Remnant W44," *Ap.J. (Letters)*, 464, L61.
- Moran, E.C., Helfand, D.J., Becker, R.H., and White, R.L. 1996, "The Einstein Two-Sigma Catalog: Silver Needles in the X-ray Haystack," *Ap.J.*, 461, 127.
- Helfand, D.J., Becker, R.H., and White, R.L. 1995, "The X-Ray Emission from 3C58 Revisited," *Ap.J.*, 453, 741.
- Halpern, J.P., Helfand, D.J., and Moran, E.C. 1995, "No X-ray Luminous Starbursts in the Einstein Medium Sensitivity Survey, Either," *Ap.J.*, 453, 611.
- Kistiakowsky, V. and Helfand, D.J., 1995, "The Identification of Galactic Plane Radio Sources at  $|b| < 2$  Degrees," *A.J.*, 110, 2225.

Becker, R.H., White, R.L., and Helfand, D.J. 1995, "The FIRST Survey: Faint Images of the Radio Sky at Twenty-cm," *Ap.J.* 450, 559.

Hughes, J.P., Canizares, C.R., Helfand, D.J., Hwang, U., Itoh, M., Kirshner, R.P., Koyama, K., Markert, T.H., Tsunumi, H., and Woo, J. 1995, "ASCA Observations of the Large Magellanic Cloud Supernova Remnant Sample: I. Typing Supernovae from their Remnants," *Ap.J. (Letters)*, 444, L81.

Helfand, D.J., Becker, R.H., Hawkins, G., and White, R.L. 1994, "The Nature of the Compact X-ray Source in the Supernova Remnant G27.4+0.0," *Ap.J.*, 434, 627.

Moran, E.C., Halpern, J.P., and Helfand, D.J. 1994, "The True Nature of IRAS-Selected X-ray Luminous 'Normal' Galaxies," *Ap.J. (Letters)*, 433, L65.

Yancopoulos, S., Hamilton, T.T., and Helfand, D.J. 1994, "The Detection of Pulsed X-ray Emission from a Nearby Radio Pulsar," *Ap.J.*, 429, 382.

Helfand, D.J. 1994, "The Geminga Enigma: How Many are there in the Gamma-ray Sky?" *M.N.R.A.S.*, 267, 490.

Becker, R.H., White, R.L., Helfand, D.J., and Zoonematkermani, S. 1994, "A 5 GHz Survey of the Galactic Plane," *Ap.J. (Suppl.)*, 91, 347.

Hamilton, T.T., and Helfand, D.J. 1993, "The Association of Faint Radio Sources with Fluctuations in the X-ray Background," *Ap.J.*, 418, 55.

Kistiakowsky, V., and Helfand, D.J. 1993, "Observations of [S III] Emission from Galactic Radio Sources: The Detection of Distant Planetary Nebulae and a Search for Supernova Remnant Emission," *A.J.*, 105, 2199.

Sanbonmatsu, K.Y., and Helfand, D.J. 1992, "A Distance Determination for the Supernova Remnant G27.4+0.0 and its Central X-ray Source," *A.J.*, 104, 2189.

Helfand, D.J., Becker, R.H., and White, R.L. 1992, "The Discovery of an X-ray Selected, Radio-Loud Quasar at  $z = 3.9$ ," *A.J.*, 104, 531.

Helfand, D.J., Zoonematkermani, S., Becker, R.H., and White, R.L. 1991, "Compact Radio Sources Near the Galactic Plane," *Ap.J. (Suppl.)*, 80, 211.

Hamilton, T.T., Helfand, D.J., and Wu, X 1991, "Faint X-ray Source Counts and the Origin of the X-ray Background," *Ap.J.*, 379, 576.

Wu, X., Hamilton, T.T., Helfand, D.J., and Wang, Q. 1991, "The Intensity and Spectrum of the Diffuse X-ray Background," *Ap.J.*, 379, 564.

Wang, Q., and Helfand, D.J. 1991, "LMC 2 as the Blowout of a Hot Superbubble," *Ap.J.*, 379, 327.

- Helfand, D.J. and Hamilton, T.T. 1991, "A Plasma Cloud, not a Planet?" *Nature*, 352, 481.
- Wang, Q., Hamilton, T., Helfand, D.J., and Wu, X. 1991, "The Detection of X-rays from the Hot Interstellar Medium of the Large Magellanic Cloud," *Ap.J.*, 374, 475.
- Wang, Q., and Helfand, D.J. 1991, "The Detection of X-ray Emission from the OB Associations of the Large Magellanic Cloud," *Ap.J.*, 373, 497.
- White, R.L., Becker, R.H., and Helfand, D.J. 1991, "The Infrared Properties of Compact Galactic Radio Sources: The Young and the Restless," *Ap.J.*, 371, 148.
- Wang, Q., and Helfand, D.J. 1991, "An X-ray Image of the Violent Interstellar Medium in 30 Doradus," *Ap.J.*, 370, 541.
- Zoonematkermani, S., Helfand, D.J., Becker, R.H., White, R.L., and Perley, R.A. 1990, "A Catalog of Small-Diameter Radio Sources in the Galactic Plane," *Ap.J. Suppl.*, 74, 181.
- Becker, R.H., White, R.L., McLean, B.J., Helfand, D.J., and Zoonematkermani, S. 1990, "A 20 Centimeter Survey of Compact Sources in the Northern Galactic Plane," *Ap.J.*, 358, 485.
- Chanan, G.A., and Helfand, D.J. 1990, "Optical Polarization of the Crab-Like Supernova Remnant 0540-693 in the Large Magellanic Cloud," *Ap.J.*, 352, 167.
- Helfand, D.J., and Chanan, G.A. 1989, "A Search for X-ray Counterparts to Small-Diameter Galactic Radio Sources," *A.J.*, 98, 1652.
- Wang, Q., Hamilton, T., and Helfand, D.J. 1989, "The Hot Interstellar Medium Toward SN1987A," *Nature*, 341, 309.
- Velusamy, T., Becker, R.H., Goss, W.M., and Helfand, D.J. 1989, "Thick Radio Shell in Supernova Remnant DA 495 (G65.7+1.2)?" *J. Astrophys. Astr.*, 10, 161.
- Helfand, D.J., Velusamy, T., Becker, R.H., Lockman, F.J. 1989, "The Prevalence of SNRs Among Unidentified Galactic Radio Sources," *Ap.J.*, 341, 151.
- Becker, R.H., and Helfand, D.J. 1988, "The Dual Nature of the Supernova Remant G351.2 + 0.1," *A.J.*, 95, 883.
- Becker, R.H., and Helfand, D.J. 1987, "High Resolution X-ray and Radio Images of the Galactic SNR G39.2 - 0.3," *A.J.*, 94, 1629.
- Singh, K.P., Westergaard, N.J., Schnopper, H.W., and Helfand, D.J. 1987, "Xray Observations of SNR N103B in the Large Magellanic Cloud," *Ap. J.*, 322, 80.
- Hamilton, T. and Helfand, D.J. 1987, "The Origin of the Diffuse X-ray Background," *Ap. J.*, 318, 93.

- Becker, R.H., and Helfand, D.J. 1987, "High Resolution Radio Observation of the SNR G24.7 + 0.6: Discovery of an Embedded Ultra-Compact HII Region," *Ap. J.*, 316, 660.
- Erickson, W.C., Mahoney, M.J., Becker, R.H., and Helfand, D.J. 1987, "VLA Observations of the Fast Pulsar Candidate," *Ap. J. (Letters)*, 314, L45.
- Helfand, D.J. and Becker, R. 1987, "G0.9 + 0.1 and the Emerging Class of Composite Supernova Remnants," *Ap. J.*, 314, 203.
- Vrtilek, S.D., Chanan, G.A., Helfand, D.J., Kahn, S.M., Grindlay, J.E., and Seward, F.D. 1987, "High Resolution X-ray Spectroscopy of Three Galactic Bulge Sources," *Ap. J.*, 308, 644.
- Vrtilek, S.D., Kahn, S.M., Grindlay, J.E., Helfand, D.J., and Seward, F.D. 1986, "Spectral Variability of Cygnus X-2: Structure in the Circumsource Material," *Ap. J.*, 307, 698.
- Caillault, J.-P. Helfand, D.J., Nousek, J.A., and Takalo, L.O. 1986, "X-ray Selected M-Dwarfs and the Diffuse X-ray Background," *Ap. J.*, 304, 318.
- Chanan, G.A., Helfand, D.J., and Spinrad, H. 1986, "The Extragalactic Nature of G227.1 + 1.0," *Nature*, 320, 41.
- Becker, R.H. and Helfand, D.J. 1985, "Identification of G20.0 – 0.2 as a Crablike SNR," *Ap. J. (Letters)*, 297, L25.
- Matthewson, D.S., Ford, V.L., Tuohy, I.R., Mills, B.Y., Turtle, A.J., and Helfand, D.J. 1985, "Supernova Remnants in the Magellanic Clouds: III," *Ap. J. Suppl.*, 58, 197.
- Hughes, J.P., and Helfand, D.J. 1985, "Self-Consistent Models for the X-ray Emission from Supernova Remnants: An Application to Kepler's Remnant," *Ap. J.*, 291, 544.
- Hamilton, T.T., Helfand, D.J., and Becker, R.H. 1985, "A Search for Millisecond Pulsars in Globular Clusters," *A.J.*, 90, 606.
- Caillault, J.-P., and Helfand, D.J. 1985, "The Einstein Soft X-ray Survey of the Pleiades," *Ap. J.*, 289, 279.
- Caillault, J.-P., Chanan, G.A., Helfand, D.J., Patterson, J., Nousek, J.A., Takalo, L., Bothun, G., and Becker, R. 1985, "The Peculiar X-ray Radio Source AS431," *Nature*, 313, 376.
- Helfand, D.J. and Becker, R.H. 1985, "Origin of the New Axisymmetric Radio Sources," *Nature*, 313, 118.
- Becker, R.H., and Helfand, D.J. 1985, "A New Class of Nonthermal Radio Sources," *Nature*, 313, 115.

Kriss, G.A., Becker, R.H., Helfand, D.J., and Canizares C. 1985, “G27.4–0.0: A Galactic SNR with a Compact Central Source,” *Ap. J.*, 288, 703.

Helfand, D.J. 1984, “Endpoints of Stellar Evolution: X-ray Surveys of the Local Group,” *P.A.S.P.*, 96, 913.

Chanan, G.A., Helfand, D.J., and Reynolds, S.P. 1984, “An Optical Synchrotron Nebula Around the X-ray Pulsar 0540–693 in the Large Magellanic Cloud,” *Ap. J. (Letters)*, 287, L23.

Seward, F.D., Harnden, F.R., and Helfand, D.J., 1984, “Discovery of a 50 Millisecond Pulsar in the Large Magellanic Cloud,” *Ap. J. (Letters)*, 287, L19–L22.

Jura, M., and Helfand D.J. 1984, “X-rays from Mira: Accretion from Red Giant Winds,” *Ap. J.*, 287, 785.

Cowley, A.D., Crampton, D., Hutchings, J.B., Thorstensen, J.R., Charles, P.A., Helfand, D.J., and Hamilton, T.T. 1984, “Stellar Counterparts of the Large Magellanic Cloud X-ray Sources,” *Ap. J.*, 286, 196.

Becker, R.H., and Helfand, D.J. 1984, “New Radio Observations of the Composite SNR G29.7 – 0.3,” *Ap. J.*, 283, 154.

Hughes, J., Helfand, D.J., and Kahn, S.M. 1984, “On the Number-Diameter Relation of Supernova Remnants in the LMC,” *Ap. J. (Letters)*, 281, 25–28.

Helfand, D.J., Chance, D., Becker, R.H., and White, R.L. 1984, “VLA Maps of Compact Radio Sources in the Galactic Plane: A search for Crab-Like Supernova Remnants,” *A.J.*, 89, 819-823.

Pisarski, R., Helfand, D.J., and Kahn, S.M. 1984, “An X-ray Study of the Remnant of SN 185AD,” *Ap.J.*, 277, 210–215.

Helfand, D.J., and Becker, R.H. 1984, “The Observation of Stellar Remnants from Recent Supernovae,” *Nature*, 307, 215-221.

Helfand, D.J., Ruderman, M.A., and Shaham, J. 1983, “X-ray Emission and Spin-Up Evolution of the Binary 6.1 Msec Pulsar,” *Nature*, 304, 423- 424.

Cheng, A.F., and Helfand, D.J. 1983, “X-rays from Radio Pulsars: The Detection of PSR1055 – 52,” *Ap. J.*, 271, 271.

Helfand, D.J. and Vrtilek, S.D. 1983, “Constraints on Gamma-Ray Bursters from Soft X-ray Transients,” *Nature* 304, 41-43.

Becker, R.H., Helfand, D.J., and Szymkowiak, A.E. 1983, “G29.7–0.3: Another Supernova Remnant with an Identity Crisis,” *Ap. J. (Letters)*, 268, L93–L97.

Becker, R.H., and Helfand, D.J. 1983, "High Resolution X-ray and Radio Maps of the Millisecond Pulsar," *Nature*, 302, 688.

Mathewson, D.S., Dopita, M.A., Tuohy, I.R., Long, K.S., and Helfand, D.J. 1983, "Supernova Remnants in the Magellanic Clouds," *Ap. J. Supp.*, 51, 345–355.

Culhane, J.L., Sanford, P.W., and Helfand, D.J. 1983 "X-ray Astronomy," *Am. J. Ph.* 51, 285

Van Breugel, W., Balick, B., Heckman, T., Miley, G., and Helfand, D.J. 1983, "The Peculiar Radio Galaxy 3C433," *A.J.*, 88, 40.

Schindler, M., Stencel, R.E., Linsky, J.L., Basri, G.S., and Helfand, D.J. 1982, "Ultraviolet and X-ray Detection of the 56 Peg System (K;IIp+WD): Evidence for Accretion of a Cool Stellar Wind onto a White Dwarf," *Ap. J. (Letters)*, 263, 269.

Chanan, G.A., Margon, B., Helfand, D.J., Downes, R.A., and Chance, D. 1982, "Two X-ray Selected BL Lacertae-Type Objects," *Ap. J. (Letters)*, 261, L31.

Tuohy, I.R., Dopita, M.A., Mathewson, D.S., Long, K.S., and Helfand, D.J. 1982, "Optical Identification of Type I Supernova Remnants in the Large Magellanic Cloud," *Ap. J.*, 261, 473.

Becker, R.H., and Helfand, D.J., and Szymkowiak, A.E., 1982, "An X-ray Study of the Crablike SNR: 3C58 and CTB80," *Ap. J.*, 255, 557–563.

Helfand, D.J., and Caillault, J.-P. 1982, "An Unbiased Survey of Field Star X-ray Emission," *Ap. J.*, 253, 760–767.

Owen, F.N., Helfand, D.J., and Spangler, S. 1981, "The Correlation of X-ray Emission with Strong Millimeter Activity in Extragalactic Sources," *Ap. J. (Letters)*, 250, L55.

Long, K.S., Helfand, D.J., and Grabelsky, D.A. 1981, "A Soft X-ray Study of the Large Magellanic Cloud," *Ap. J.*, 248, 925.

Ku, W.H.-M., Helfand, D.J., and Lucy, L.B. 1980, "The X-ray Properties of Quasars," *Nature*, 288, 323–328.

Helfand, D.J. 1980, "A Search for X-Ray Binaries in the Quiescent Phase," *P.A.S.P.*, 92, 691–694.

Cordes, J.M., and Helfand, D.J. 1980, "Pulsar Timing: III. Timing Noise of 50 Pulsars," *Ap. J.*, 239, 640.

Helfand, D.J., Taylor, J.H., and Backus, P.R. 1980, "Pulsar Timing. I. Observations during the Interval 1970.0 to 1978.0," *Ap. J.*, 237, 206.

Helfand, D.J., Chanan, G.A., and Novick, R. 1980, "Thermal X-ray Emission from Neutron Stars," *Nature*, 283, 337–343.

Helfand, D.J., and Long, K.S., 1979, "X-ray Observations of the March 5 1979 Gamma-Burst Field with the Einstein Observatory," *Nature*, 282, 589–591.

Long, K.S., and Helfand, D.J., 1979, "Supernova Remnants in the Large Magellanic Cloud," *Ap. J. (Letters)*, 234, L77–L81.

Giacconi, R. et al. 1979, "The Einstein (HEAO-2) X-ray Observatory," *Ap. J.*, 230, 540–550.

Helfand, D.J. 1979, "Neutrinos from Neutron Stars," *Nature*, 278, 720–721.

Helfand, D.J., 1978, "Recent Observations of Pulsars," *American Scientist*, 66, 332–339.

Helfand, D.J., and Tademaru, E. 1977, "Pulsar Velocity Observations: Correlations, Interpretations, and Discussion," *Ap. J.*, 216, 842–851.

Helfand, D.J., Fowler, L.A., and Kuhlman, J.V., 1977, "Pulsar Flux Observations: Long-Term Intensity and Spectral Variations," *A.J.*, 82, 701–705.

Helfand, D.J., and Tademaru, E. 1977, "Tugboat Model for OB Binaries, X-ray Stars and Pulsars," *Nature*, 267, 130–131.

Helfand, D.J., Taylor, J.H., and Manchester, R.N. 1977, "Pulsar Proper Motions," *Ap. J. (Letters)*, 213, L1–L4

Helfand, D.J., Manchester, R.N., and Taylor, J.H. 1975, "Observations of Pulsar Radio Emission: III. Stability of Integrated Profiles," *Ap. J.*, 198, 661–670.

Huguenin, G.R., Taylor, J.H., and Helfand, D.J. 1973, "Slow Variations of Pulsar Intensities," *Ap. J. (Letters)*, 181, L139–L142.

### ***Conference Proceedings (57)***

Radio properties of M33 supernova remnants: results from a new deep JVLA Survey, Long, K.S., White, R.L., Becker, R.H., & Helfand, D.J. 2016, in *Supernova Remnants: An Odyssey in Space after Stellar Death*, 9L.

"A Radio, Millimeter and IR Study of z > 2 Luminous QSOs," Petric, A.O., Carilli, C.L., Mason, R.E., Bertoldi, F., Beelen, A., Omont, A., & Helfand, D.J. 2007, *ASPC* 373, 747.

"Discovery of a Pulsar Candidate Associated with the TeV Gamma-ray Source HESS J1813-178," Gotthelf, E.V. and Helfand, D.J. 2007, *AIPS* 921, 223.

“MAGPI: The Multi-Array Galactic Plane Imaging Survey”, Becker, R. H., White, R. L., & Helfand, D. J. 2006, American Institute of Physics Conference Series, 840, 102.

“Exploring the Nature of Red Quasars - an Update”, Smith, M. G., Norman, D., Green, P., Silverman, J., Barkhouse, W., Wilkes, B., Glikman, E., & Helfand, D. 2005, ASP Conf. Ser. 344: The Cool Universe: Observing Cosmic Dawn, 344, 101.

“MSX Colors of Radio-Selected HII Regions in the Milky Way,” Giveon, U., Becker, R. H., Helfand, D. J., & White, R. L. 2004, ASP Conf. Ser. 317: Milky Way Surveys: The Structure and Evolution of our Galaxy, 317, 149.

“The Serendipitous Extragalactic X-ray Source Identification (SEXSI) Program,” Eckart, M. E., Harrison, F. A., Mao, P. H., Yost, S. A., Helfand, D. J., Laird, E. S., & Stern, D. 2004, Multiwavelength AGN Surveys, 37.

“Exploring the Radio Properties of Radio Quiet Quasars,” Glikman, E., Helfand, D., Becker, R., & White, R. 2004, ASP Conf. Ser. 311: AGN Physics with the Sloan Digital Sky Survey, 311, 351.

“Uncovering High-z Clusters Using Wide-Angle Tailed Radio Sources,” Blanton, E.L., Gregg, M.D., Helfand, D.J., Becker, R.H., and White, R.L. 2004, in “Clusters of Galaxies: Probes of Cosmological Structure and Galaxy Evolution,” eds J.S. Mulchaey, A. Dressler, and A. Oemler. Carnegie Observatories Astrophysics Series, Vol. 3.

“The Serendipitous Extragalactic X-ray Source Identification (SEXSI) Survey,” Eckart, M.E., Harrison, F.A., Helfand, D.J., Laird, E., Mao, P.H., and Helfand, D.J. 2003, Astron Nachr, 324, 180.

“Chandra X-ray Spectroscopy of Kes 75, its Young Pulsar, and its Synchrotron Nebula,” Collins, B.F., Gotthelf, E.V., and Helfand, D.J. 2002, in ”Neutron Stars in Supernova Remnants,” (ASP Conference Proceedings), eds P. O. Slane and B. M. Gaensler, p.237.

“Constraining the Birth Events of Neutron Stars,” Kaspi, V. and Helfand, D.J. 2002, in ”Neutron Stars in Supernova Remnants,” (ASP Conference Proceedings), eds P. O. Slane and B. M. Gaensler, p.3.

“The New Gamma-ray Pulsar PSR J2229+6114, its Pulsar Wind Nebula, and Comparison with the Vela Pulsar”, Halpern, J.P., Gotthelf, E.V., Camilo, F., Collins, B., and Helfand, D.J. 2002, in ”Neutron Stars in Supernova Remnants,” (ASP Conference Proceedings), eds P. O. Slane and B. M. Gaensler, p.199.

“Detection of X-ray Emission from SNR G16.7+0.1,” Agueros, M.A., Helfand, D.J., and Gotthelf, E.V. 2002, in ”Neutron Stars in Supernova Remnants,” (ASP Conference Proceedings), eds P. O. Slane and B. M. Gaensler, p.241.

“The Galactic Plane Observed by XMM-Newton,” Hands, A., Warwick, R., Watson, M., and Helfand, D.J. 2002, in “New Visions of the X-ray Universe in the XMM-Newton and Chandra Era”.

“The FIRST Efficient Lens Survey,” Lehar, J., Buchalter, A., McMahon, R.G., Kochanek, C., Helfand, D.J., Becker, R.H., and Muxlow, T. 2000, in “Gravitational Lensing: Recent Progress and Future Goals”.

Refregier, A., Brown, S.T., Kamionkowski, M., Helfand, D.J., Cress, C.M., Babul, A., Becker, R.H., and White, R.L. 1998, “Weak Lensing by Large- Scale Structure with the FIRST Survey,” in “Large Scale Surveys in Cosmology,” ed. S. Colombi and Y. Mellier (Paris: Editions Frontieres) 209.

Helfand, D.J. and the FIRST Team 1998, “The VLA FIRST Survey: Large-Scale Structure in the Radio Universe,” in “Large Scale Surveys in Cosmology,” ed. S. Colombi and Y. Mellier (Paris: Editions Frontieres) 149.

Helfand, D.J. 1998, “A Cradle Census: Evidence for Young Neutron Stars in Supernova Remnants,” in “The Relationship Between Neutron Stars and Supernova Remnants”, ed. R. Bandiera, E. Masini, F. Pacini, M. Salvati, and L. Woltjer, Memorie della Societa Astronomica Italiana, Vol. 69, No. 4, p. 791.

R.H. Becker, M.D. Gregg, S.A. Laurent-Muehleisen, R.L. White, D.J. Helfand, R.G. McMahon, W. Oegerle, S. Friedman, G. Richards, D. York, C. Rockosi, and C. Impey 1997, “BAL Quasars in the VLA FIRST Survey,” in “Mass Ejection from AGN,” eds. N. Arav, I. Schlosman, and R.J. Weymann, ASP Conf. Ser. 128, p31.

Helfand, D.J., Das, S.R., Becker, R.H., White, R.L., McMahon, R.G., 1996, “Rapid Variability in Faint Extragalactic Radios Sources,” to appear in Proceedings of the Workshop on Blazar Variability, eds. H.R. Miller, J.R. Webb, and N. Noble, ASP Conf. Ser. 110, p214.

Becker, R.H., Gregg, M.D., Helfand, D.J., Cress, C.M., White, R.L., and McMahon, R.G. 1996, “First Results from the VLA FIRST Survey,” in Proc. of IAU Symposium 175, ASP Conf. Ser. 94, p. 422.

Refregier, A., Helfand, D.J., and McMahon, R.G., 1996, “Isolating the Foreground of the X-ray Background,” in Röntgenstrahlung from the Universe, eds. U.H. Zimmerman et al. (Garching: MPE), p. 337.

Becker, R.H., White, R.L., Helfand, D.J., Gregg, M.D., and McMahon, R.G. 1996, “Stellar Results from the FIRST Survey,” in Radio Emission from the Stars and the Sun, eds. J.M. Paredes and R. Taylor, ASP Conf. Ser. 93, p. 422.

Cress, C.M., Helfand, D.J., Becker, R.H., Gregg, M.D., and White, R.L. 1996, in Clusters, Lensing, and the Future of the Universe, ed. V. Trimble and A. Reisenegger, ASP Conf. Ser., Vol. 88, p. 193.

Helfand, D.J. 1994, “Dissecting Crab Shells with ASCA,” in New Horizon of Astronomy, eds. F. Makino & T. Ohashi, Tokyo: Universal Academy Press, p. 113.

Hughes, J.P., Canizares, C., Itoh, M., Helfand, D.J., Hwang, U., Kirshner, R., Koyama, K., Markert, T., Tsunemu, H., and Woo, J. 1994, in *New Horizon of Astronomy*, eds. F. Makino & T. Ohashi, Tokyo: Universal Academy Press, p. 113.

Becker, R.H., White, R.L., and Helfand, D.J. 1994, "The VLA's FIRST Survey," in *Proceedings ADASS III*, AIP Conference Series, 61, eds. D.R. Crabtree, R.J. Havisch, and J. Barnes, p. 165.

Helfand, D.J., Moran, E.C., Becker, R.H., and White, R.L. 1993, "Silver Needles in the 2  $\mu$  Haystack: Galaxies, Clusters, and the XRB," in *Observational Cosmology*, ed. G. Chincarini, A. Iovino, T. Maccacaro, and D. Macagni, ASP Conference Series, 51, 470.

Helfand, D.J. and Hamilton, T.T. 1992, "Where Have All the Sources Gone?" in *X-ray Emission from Active Galactic Nuclei and the Cosmic X-ray Background*, ed. W. Brinkmann and J. Trumper (Garching: MPE Report 235), 315.

Helfand, D.J. 1992, "The X-ray Background and the X-ray Foreground: Sorting it Out," in *Frontiers of X-ray Astronomy*, ed. Y. Tanaka and K. Koyama (Tokyo: Universal Academy Press), p. 631.

Helfand, D.J. 1991, "On the Origin of the Diffuse X-ray Background," in *Proceedings of the US – USSR Workshop on High Energy Astrophysics*, eds. W.H.G. Lewin, G.W. Clark, R.A. Sunyaev (Washington D.C.: National Academy Press), 174.

Helfand, D.J. 1991, "An X-ray Image of the Large Magellanic Cloud: Detection of the Hot Interstellar Medium," in *IAU Symposium No. 148, The Magellanic Clouds and their Dynamical Interaction with the Milky Way*, eds. R. Haynes and D. Milne (Dordrecht: Kluwer), 37.

Wang, Q., and Helfand, D.J. 1991, "An X-ray Survey of OB Associations in the Large Magellanic Cloud," in *IAU Symposium No. 148, The Magellanic Clouds and their Dynamical Interaction with the Milky Way*, eds. R. Haynes and D. Milne (Dordrecht: Kluwer), 224.

Becker, R.H., and Helfand, D.J. 1988, "A Search for Shells Around Crabs," in *Supernova Remnants and the Interstellar Medium*, Proceedings of IAU Colloquium No. 101, eds. R.S. Roger and T.L. Landecker, 335. Helfand, D.J. and Huang, J.-H. (co-editors) 1987, "The Origin and Evolution of Neutron Stars," (Dordrecht, Reidel).

Caillault, J-P., Helfand, D.J., Nousek, J.A. and Takalo, L.O. 1986, :X-ray Selected M-Dwarfs and the Diffuse X-ray Background," LNP, 254, 100.

Helfand, D.J., and Becker, R.H. 1987, "The Progenitors and Products of Supernovae," in *NATO Advanced Study Institute on High Energy Phenomena around Collapsed Stars* (Cargese, Corsica 2–13 September 1985) ed. F. Pacini (Dordrecht; Boston: D. Reidel), p. 243.

Novick, R., Chanan, G., and Helfand, D.J. 1985, "X-ray Polarimetry on XMM," in *A Cosmic X-ray Spectroscopy Mission: Proc. of a Workshop* (Lyngby, Denmark 24–26 June 1985), eds. N. Longdon and O. Melita (Paris, France: European Space Agency).

Helfand, D.J. 1985, "The Creation of Compact Objects in the Local Group," in Seminar on Galactic and Extragalactic X-ray Sources (Tokyo, Japan, 16–18 January 1985) eds Y. Tanaka and W.H.S. Levin (Tokyo: Institute of Space and Astronomical Science).

Helfand, D.J., and Becker, R.H. 1985, "Radio Observation of New and Used Crab-like Supernova Remnants," in The Crab Nebula and Related Supernova Remnants, eds. M. Kafatos and R.B.C. Henry (Cambridge University Press), p. 241.

Chanan, G.A., Helfand, D.J., Reynolds, S. 1984, "An Optical Synchrotron Nebula Around the X-ray Pulsar 0540 – 693 in the LMC," in Birth and Evolution of Neutron Stars: Issues Raised by Millisecond Pulsars, eds. S.P. Reynolds and D.R. Stinebring (NRAO: Greenbank, WV 1984), p.40.

Helfand, D.J. 1984, "X-ray Synchrotron Nebulae and the Origin of Neutron Stars," in COSPAR/IAU Symposium on Advances in High Energy Astrophysics and Cosmology, Adv. Space Res., 3, 29.

Helfand, D.J. 1984, "X-ray Surveys of the Magellanic Clouds," in IAU Symposium No. 108, The Structure and Evolution of the Magellanic Clouds, eds. K. de Boer and S. van den Bergh (Dordrecht: Reidel), pp. 293–304.

Helfand, D.J. 1983, "X-ray Emission from Radio Pulsars," in IAU Symposium No. 101, Supernova Remnants and Their X-ray Emission, eds. I.J. Danziger and P. Gorenstein (Dordrecht: Reidel).

Helfand, D.J., and Long, K.S. 1982, "An X-ray Survey of Supernova Remnants in the Large Magellanic Cloud," in Supernovae: A Survey of Current Research, eds. M.J. Rees and R.J. Stoneham (Dordrecht: Reidel), p.529.

Helfand, D.J., "On Seeing a Neutron Star," in Cosmology and Astrophysics, eds. Y. Terzian and E. Belson (Ithaca: Cornell Univ. Press).

Helfand, D.J., Chanan, G.A., Novick, R., MacCallum, C.J., and Leventhal, M. 1981, "Spectroscopy from 2 to 200 keV," in X-ray Astronomy in the 1980s, eds. S.S. Holt (NASA Technical Memo. 83848), p. 567.

Helfand, D.J. 1981, "X-ray Imaging: Supernova Remnants," in X-ray Astronomy with the Einstein Satellite, ed. R. Giacconi (Dordrecht: Reidel), pp. 39–49.

Helfand, D.J. and Long, K.S. 1981, "A Soft X-ray Study of the Large Magellanic Cloud," Space Science Reviews, 30, 141

Helfand, D.J., Becker, R.H. and Novick, R. 1981, "On Synchrotron Nebulae and Pulsars", Space Science Reviews, 30, 263.

Helfand, D.J. 1981, "Unpulsed X-rays from Pulsars," in IAU Symposium No. 95, Pulsars, eds. W. Sieber and R. Wielebinski (Dordrecht: Reidel), pp.343–350.

Helfand, D.J. and Long, K.S. 1980, “Observations of Supernova Remnants in the Large Magellanic Cloud with the Einstein Observatory,” in X-ray Astronomy, eds. R. Giacconi and G.H. Setti (Dordrecht: Reidel), pp. 47–59.

Helfand, D.J., Ku, W.H.-M., and Abramopoulos, F., 1980, “X-ray Studies of Clusters of Galaxies with the Einstein Observatory,” in Highlights in Astronomy, 5, (Dordrecht: Reidel), pp. 747–751.

Helfand, D.J. 1980, “X-ray Imaging of Supernova Remnants and Neutron Stars: Can We Distinguish Type I Remnants?” in Proc. of a Workshop on Type I Supernova (University of Texas, Austin, March 1980).

Helfand, D.J. 1979, “Ultrahigh Energy Neutrinos from Galactic Neutron Stars,” in Proc. of the 1978 DUMAND Workshop. Vol. 2: UHE Interactions, Neutrino Astronomy, ed. A. Roberts (La Jolla, California: DUMAND Scripps Institution of Oceanography), pp. 193–218.

Long, K.S., Chanan, G.A., Helfand, D.J., Ku, W.H.-M., and Novick, R. 1979, “X-ray Polarimetry,” in (COSPAR) X-ray Astronomy, eds W.A. Baity and L.E. Peterson (Oxford and New York: Pergamon Press), pp. 105–108.

Long, K.S., Chanan, G.A., Helfand, D.J., Ku, W.H.-M., and Novick, R. 1979, “Bragg Crystal Spectroscopy of the OSO-8 Satellite,” in (COSPAR) Xray Astronomy, eds. W.A. Baity and L.E. Peterson (Oxford and New York: Pergamon Press), pp. 183–186.

### **Books (4)**

Helfand, D.J. 2016, *A Survival Guide to the Misinformation Age: Scientific Habits of Mind*, Columbia University Press (ISBN 978-0-231-16872-4).

Helfand, D.J. 2023, *The Universal Timekeepers: Reconstructing History Atom by Atom*, Columbia University Press (Sept. 2023).

Helfand, D.J. 2023, “Global Warming: A Case Study in Science” Chapter in *Climate Change for Astronomers*, ed. T. Rector, Institute of Physics Press (in press).

Helfand, D.J. and Prud’homme-Genereux, A. 2023, “High Engagement Learning on the Block” Chapter in *Block Teaching Essentials: A Practical Guide*, ed. J. Weldon & Konjarski, L., Springer-Nature (in press).

### **Other Publications (48)**

Helfand, D.J. 2021, “A Radical Experiment: Tenure Does not Equal Excellence”, *Chronicle of Higher Education*, April 7, 2021.

Helfand, D.J. 2017, “Surviving the Misinformation Age,” *The Skeptical Inquirer*, Vol. 41, No. 3, pp. 34-39

Helfand, D.J. 2016, "The Better Angels of our Nature vs. The Internet," *The Skeptical Inquirer 40th Anniversary Issue*, Vol. 40.5, p.55.

Helfand, D.J. 2016, "The Dawn of the Misinformation Age," *The Human Prospect* Vol. 5, No. 3, pp.40-51.

Helfand, D.J. 2016, "Mucking About in the Mess: Research-based Education at Quest University Canada," *Council on Undergraduate Research Quarterly*, 36, No. 2, pp28-34.

Helfand, D.J. 2015, "Computer Glitches Struck the Stock Market and United Airlines on the Same Day. Why You Didn't Believe It Was a Coincidence," 2015, *The Washington Post*, July 10, 2015 [[https://www.washingtonpost.com/opinions/computer-glitches-struck-the-stock-market-and-united-airlines-on-the-same-day-heres-why-you-didnt-believe-itwas-a-coincidence/2015/07/10/81961cc4-270d-11e5-b77f-eb13a215f593\\_story.html](https://www.washingtonpost.com/opinions/computer-glitches-struck-the-stock-market-and-united-airlines-on-the-same-day-heres-why-you-didnt-believe-itwas-a-coincidence/2015/07/10/81961cc4-270d-11e5-b77f-eb13a215f593_story.html)].

Helfand, D.J. 2015, "The Goal of Education Should Not Be Answers," *Academica Forum*, May 27, 2015 [<http://forum.academica.ca/forum/thegoal-of-education-should-not-be-answers>].

Helfand, D.J. 2014, "The Silenced Majority: Part-Time Faculty in a Full-Time Occupation," *Academica Forum*, Nov. 3, 2014 [<http://forum.academica.ca/forum/the-silenced-majority-part-time-faculty-in-a-full-time-occupation>].

Helfand, D.J. 2014, "Liberal Arts is the future of work, so why is Canada pushing 'job-ready' skills," *Globe & Mail*, 12 May 2014 [<http://www.theglobeandmail.com/news/national/education/education-lab/as-canada-pushes-job-ready-skills-the-rest-of-the-world-embraces-liberal-arts/article18492798/>].

Helfand, D.J. 2014, "'We Evolve, but the University Stands Still,'" *Globe & Mail*, 5 February 2014 [<http://www.theglobeandmail.com/news/national/education/we-evolve-but-the-university-stands-still/article16689680/>].

Helfand, D.J. 2013, "One Thing at a Time, Please," *Chronicle of Higher Education*, 30 September 2013 [<http://chronicle.com/article/One-Thing-at-a-Time-Please/141861/>].

Helfand, D.J. 2013, "Watering the Roots of Knowledge," *Chronicle of Higher Education*, 8 July 2013 [<http://chronicle.com/article/Watering-the-Roots-of/140135/>].

Helfand, D.J. 2013, "The Social Conquest of Education," *The Journal of General Education* 62, 43.

Helfand, D.J. 2012, "Rampant Innumeracy," *International Innovation*, p104-105.

Helfand, D.J. 2011, "Higher Education: Academic Questions," *Nature* 477, 49.

Helfand, D.J. 2011, "ESP and the Assault on Rationality," 2011, *The New York Times*, January 7, 2011 [<http://www.nytimes.com/roomfordebate/2011/01/06/the-esp-study-when-science-goes-psychic/esp-and-the-assault-on-rationality>].

Helfand, D.J. 2010, “Atoms as Historians: The History of a Course on History Through Science” *ASP Astronomy Beat*, No.54, p.1.

McGrath, A. & Helfand, D.J. 2010, “The New Atheists and the Meaning of life,” in A Place for Truth, *IVP Books*, Ch. 5.

Helfand, D.J. 2009, “I’m Not a Heretic, I’m a Pagan” in *Neuroscience and Free Will*, ed. R. Pollack, Columbia University CSSR.

Helfand, D.J. 2003, “Way Too Cool: A Young Neutron Star Reveals the Secrets of Nuclear Matter,” *Astronomy Magazine* 31, 3.54.

Helfand, D.J. 2001, “High Energy Astronomy: Sixty New Octaves of Discovery Space,” *PASP*, 113, 1159.

Helfand, D.J. 2000, “Seeing the Whole Symphony”, *Natural History* 109, No. 1, 84.

Helfand, D.J. 1996, “Far from the Madding Clouds,” *Mercury* 25, No. 1, 16.

Helfand, D.J. 1995, “Tenure: Thanks but No Thanks, *The Chronicle of Higher Education*, Vol.2, No. 16, B1.

Helfand, D.J. 1995, “X-rays from the Rest of the Universe,” *Physics Today*, Vol. 46, No. 11, p.58.

Helfand, D.J. 1994, Review of “Sub Arc-Second Radio Astronomy,” *The Observatory*, 114, 132.

Helfand, D.J. 1993, “High Energy Emission from Neutron Stars,” *The Observatory*, 113, 176.

Helfand, D., Baker, D.N., and Hillman, J.J. 1989, “NASA and University Astronomers,” *Science*, 246, 739.

Helfand, D.J. 1988, “Fleet Messengers from the Cosmos,” *Sky and Telescope*, 75, 265.

Helfand, D.J. 1988, “On Quarks, The Cosmos, and the Genesis of Fingernails,” *Columbia College Today*.

Helfand D.J. 1987 “New Millisecond Pulsar in an Unusual Environment,” *Nature*, 329, 285.

Helfand, D.J. 1987, “Bang: The Supernova of 1987,” *Physics Today*, 40, 24.

Helfand, D.J. 1987, “Supernovae: Creature Cataclysms in the Galaxy,” in *Universe* (Bantam Press).

Helfand, D.J. 1986, “I Turned Down Tenure,” *Washington Monthly* (June 1986).

Helfand, D.J. 1985, “Stellar Companion Appears to be Giant Planet,” *Physics Today*, 38, (April 1985).

Helfand, D.J. 1984, "Academic Tenure: A Sacred Right or an Unfortunate Privilege," *Broadway*, (March 8), p. 4.

Helfand, D.J. 1984, "Doing Well at NASA, Space Science Soars Overseas," *Physics Today*, 37, (April 1984).

Helfand, D.J. 1983, "Superclusters and the Large-Scale Structure of the Universe," *Physics Today*, 36, 17.

Helfand, D.J. 1983, "Creation on Trial," *Columbia*, 48, (February 1983).

Helfand, D.J. 1983, "Theory Points to Pulsating White Dwarfs," *Physics Today*, 36, (January 1983).

Helfand, D.J. 1982, "The Superfast Pulsar," *Nature*, 300, 573.

Helfand, D.J. 1981, "Plasma Diagnostics in an Astrophysical Setting," *Nature*, 293, 338.

Adams, D.J. & Helfand, D.J. 1981 "Cosmic X-ray Astronomy", *Physics Today*, 34.9, 82.

Helfand, D.J. 1981, "The Great Redshift Debate," *The Sciences*, 21, 10.

Helfand, D.J. 1980, "X-ray Images of Supernova Remnants," *Nature*, 285, 133–134.

Helfand, D.J. 1977, "Pulsars," *Mercury*, 6, 2.

Helfand, D.J. 1977, "The Secular Behavior of Pulsar Integrated Properties," FCRAO Report no. 701, (Ph.D. Dissertation).

Helfand, D.J. 1976, "Pulsars Rocketing Through Space," in *Physics News* in 1976.