Curriculum Vitae
Jeff Hester, January 2011

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PROFESSIONAL HISTORY

February 2010 – July 2010	Visiting Professor, Quest University
June 2009 – Present	Professor Emeritus, Arizona State University
July 2006 – May 2009	School of Earth and Space Exploration Arizona State University Professor
August 1991 – June 2006	Department of Physics and Astronomy, ASU Assistant Professor 1991—1996 Associate Professor 1996—2000 Professor 2000—2006
March 1987 – August 1991	Member of the Science Staff Infrared Processing and Analysis Center California Institute of Technology, Jet Propulsion Laboratory
August 1985 – March 1987	Research Fellow, California Institute of Technology Hubble Space Telescope Wide Field / Planetary Camera IDT
May 1985 – August 1985	Postdoctoral Researcher, Rice University

NOTABLE AFFILIATIONS

1998 – 2001	Hubble Space Telescope Wide Field Camera – 3 Member, Science Oversight Committee
1990 – 1999	Hubble Space Telescope Wide Field Planetary Camera - 2 Member, Investigation Definition Team
1988 – 1997	Hubble Space Telescope Wide Field / Planetary Camera Member, Investigation Definition Team
1993 – present	Adjunct Astronomer, Steward Observatory
1983 – present	American Astronomical Society
2004 – present	American Physical Society

EDUCATION

Graduate: 1980 – 1985	Department of Space Physics and Astronomy Rice University, Houston, Texas Presidential Recognition Award (1980—81), National Science Foundation Fellowship (1981—84), Marlar Award (1982—84), ARCS Foundation Award (1982—85)
May 1985	PhD – "The Cygnus Loop Supernova Remnant: New Observations and a Framework for Understanding its Structure and Evolution," Supervisors: R. J. Dufour, R. A. R. Parker, Donald P. Cox
May 1983	M.S. – "Digital Analysis of Narrow Band Imagery of the Cygnus Loop," Supervisors: R. J. Dufour, R.A.R. Parker
Undergraduate: 1976 – 1980	Rice University, Houston, Texas Heaps Prize for Undergraduate Physics Research (1980), Phi Beta Kappa (1979), National Merit Scholar, Baker Scholar (1977—79), Max Roy Scholar (1979—80).
May 1980	B.A. in Physics, specialization in Space Physics and Astronomy; Conferred *Summa Cum Laude*

CURRENT INTERESTS

Since retirement from ASU my professional interests have focused on teaching and public outreach at the introductory level. My particular interests involve using physics and astronomy as a context in which to develop critical thinking skills and explore what it means to look at and think about the world as a scientist.

RESEARCH INTERESTS

The interaction of massive stars with their environments. Star formation, especially in environments that have been modified by massive stars, and the ties between star formation and the early Solar System. Constraints from meteoritics on the formation of the Solar System. Supernova remnants, pulsar winds and pulsar wind nebulae, especially the Crab Nebula. The physical structure of highly stratified ionization and shock fronts in the ISM. The structure and evolution of the interstellar medium. Space-based astronomical instrumentation.

PUBLICATIONS: BOOKS

21st Century Astronomy, J. Hester, et al., 2002, W. W. Norton, New York, ISBN 0-393-97400-6

21st Cenury Astronomy, 2nd Edition, J. Hester, et al. 2006, W. W. Norton, New York, ISBN 0-393-92443-2

21st Century Astronomy: The Solar System, 2nd Edition, J. Hester, et al. 2006, W. W. Norton, New York, ISBN 0-393-93009-2

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[124.] "The Crab Nebula: An Astrophysical Chimera," Hester, J. J. 2008, Annual Reviews of Astronomy and Astrophysics, Vol 46, Issue 1, pp 127—155.

[123.] "Interaction of Supernova Ejecta with Nearby Protoplanetary Disks," Ouellette, N., Desch, S. J., & Hester, J. J. 2007, ApJ, 662, 1268.

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[115.] "Systematic Errors in Elemental Abundances Derived from Nebular Spectra," Moore, B. D., Hester, J. J., Dufour, R. J. 2004, AJ, 127, 3484

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[113.] "New Observations of the Wolf-Rayet Shell Nebula NGC 6888," Dufour, R., Moore, B., Hester, J., Scowen, P., Buckalew, B., 2003, Rex Mex AC, 18, 146

[112.] "Analysis and Models of Photoionized Structures Seen in Hubble Space Telescope Images of NGC 7635," Moore, B. D., Hester, J. J., Scowen, P. A., Walter, D. K., 2002, AJ, 124, 3305.

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[73.] "Multiband Photometry of Selected Areas in a Study of Galactic Structure," with Lu, P. K., et al., Balt.A., 6, 33.

[72.] "The ROSAT HRI X-ray Survey of the Cygnus Loop," with Levenson, N. A., et al. 1997, Ap. J., 484, 304.

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[70.] "The Star-Formation History in the Vicinity of NGC 1866 in the Large Magellanic Cloud," with Stappers, B. J., et al., 1997, PASP, 109, 292.

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[61.] "Detection of the Tip of the Red Giant Branch in NGC 5128," with Soria, R., et al. 1996, Ap. J., 465, 79.

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[59.] "Deep Wide-Field Spectrophotometry of the Open Cluster M67," with X. Fan et al., 1996, A. J., 112, 628.

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[56.] "Main-Sequence Stars and the Star Formation History of the Outer Disk in the Large Magellanic Cloud," with J. S. Gallagher et al., 1996, Ap. J., 466, 732.

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[48.] "HST Observations of the SN1987A Triple Ring Nebula," C. J. Burrows, J. Krist, J. J. Hester, R. Sahai, J. T. Trauger, K. R. Stapelfeldt, J. S. Gallagher, III, G. E. Ballestar, S. Casertano, J. T. Clarke, D. Crisp, R. W. Evans, R. E. Griffiths, J. G. Hoessel, J. A. Holtzman, J. R. Mould, P. A. Scowen, A. M. Watson, and J. A. Westphal, 1995, Ap. J. (Letters), 452, 680.

[47.] "WFPC2 Studies of the Crab Nebula: I. HST and ROSAT Imaging of the Synchrotron Nebula," J. J. Hester, et al., 1995, Ap. J., 448, 240.

[46.] "Gas Near the Center of 30 Doradus as Revealed by Hubble Space Telescope Images," Hunter, D. A., Shaya, E. J., Scowen, P. A., Hester, J. J., Groth, E. J., Lynds, R., and O'Neil, E. J., Jr., 1995, Ap. J., 444, 758.

[45.] "HST Imaging of the Wind-Blown Lobe NGC 6165," Scowen, P. A., Hester, J. J., Code, A., Mackie, G., Lynds, C. R., and O'Neil, E. J., Jr., 1995, Ap. J., 450, 196.

[43.] "An X-ray and Optical Study of the Interaction of the Cygnus Loop Supernova Remnant with an Interstellar Cloud," J. R. Graham, N. A. Levinson, J. J. Hester, J. C. Raymond, and R. Petre, 1995, Ap. J., 444, 787.

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[37.] "An X-ray and Optical Study of the Supernova Remnant W44," J. H. Rho, R. Petre, E. M. Schlegel, and J. J. Hester, 1994, Ap. J., 430, 757.

[36.] "The Balmer-Dominated NE Limb of the Cygnus Loop Supernova Remnant," J. J. Hester, J. C. Raymond, and W. P. Blair, 1994, Ap. J., 420, 721.

[35.] "Planetary Camera Observations of the Double Nucleus of M31," with T. R. Lauer, et al., 1994, A. J., 106, 1436.

[34.] "Imaging of the gravitational lens system PG 1115+080 with the Hubble Space Telescope," with J. Kristian, et al., 1993, A. J., 106, 1330.

[33.] "The Ionization Structure of the Orion Nebula," D. K. Walter, R. J. Dufour, and J. J. Hester, 1993, Rev. Mex. Astron. Astrophys., 27, 207.

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[24.] "Life at the Edge: Emission from the H II Region / Photodissociation Region Interface," J. J. Hester, 1991, P.A.S.P., 103, 853.

[23.] "Hubble Space Telescope Images and Follow-up Spectroscopy of the Orion Nebula," C. R. O'Dell, Z. Wen, and J. J. Hester, 1991, P.A.S.P., 103, 824.

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[21.] "Stellar Photometry with the Hubble Space Telescope Wide Field/Planetary Camera: A Progress Report," with J. A. Holtzman et al. 1991, Ap. J. (Letters), 369, L35.

[20.] "The Postcollapse Core of M15 Imaged with the HST Planetary Camera," with T. R. Lauer, et al. 1991, Ap. J. (Letters), 369, L45.

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[3] "A Deep Hα Image of Faint Balmer-line Filaments in the Northeast Cygnus Loop Supernova Remnant," J. J. Hester, J. C. Raymond, and G. E. Danielson, 1986, Ap. J. (Letters), 303, L17.

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[1] "Digital Analysis of Narrow-Band Imagery of the Cygnus Loop," J. J. Hester, R. A. R. Parker, and R. J. Dufour, 1983, Ap. J., 273, 219.

CONFERENCE PROCEEDINGS & UNREFEREED PUBLICATIONS

"Cool Stars in Hot Places," Megeath, S. T., Gaidos, E., Hester, J. J., Adams, F. C., Bally, J., Lee, J.-E., Wolk, S. 2008, 14th Cambridge Workshop on Cool Stars, Stellar Systems, and the Sun, ASP Conference Series, Vol 384, editor G. Van Belle, p 393.

"Injection of Supernova Dust Grains into Protoplanetary Disks," 2007, 70th Annual Meteoritical Society Meeting, 13-17 August 2007, Tucson, Arizona, Meteoritics & Planetary Science Supplement, Vol 42, p5036

"The Role of the Astrophysical Environment on the Meteoritic Record," Hester, J. J., Bally, J., Williams, J. P., Desch, S. 2007, Workshop on the Chronology of Meteorites and the Early Solar System, 5-7 November 2007, Kauai, Hawaii. LIP Contribution No. 1374, p. 69.

"Using Spitzer IRAC Observations to Compare Modes of Star Formation in G305.35+07 and NGC 2174/5," Cotera, A., Hester, J., Healy, K., Snider, K. Simpson, J., Whitney, B., 2006, "Triggered Star Formation in a Turbulent ISM," IAU Symposium 237, 14-18 August 2006, Prague, Czech Republic, S237.

"A Scenario for Low-Mass Star Formation in H II Region Environments," Snider, K. D., Hester, J. J., Desch, S. J., Healy, K. R., Ouellette, N. Whitney, B. A., Cotera, A. S., 2006, "Triggered Star Formation in a Turbulent ISM," IAU Symposium 237, 14-18 August 2006, Prague, Czech Republic, S237.

"X-ray Monitoring Observations of the Crab Nebula," Mori, K, et al., 36th COSPAR Scientific Assembly, p 2615.

"The Meaning of Iron 60: A Nearby Supernova Injected Radionuclides into Our Solar System," Desch, S. J., Ouellette, N., Hester, J. J. 2005, Meteoritics & Planetary Science, Vol. 40, Supplement, Proceedings of 68th Annual Meeting of the Meteoritics Society, Gatlinburg, Tennessee, p.5264.

"Year-scale Morphological Variations of the X-ray Crab Nebula," Mori, K., Burrows, D. N., Pavlov, G. G., Hester, J. J., Shibata, S., Tsunemi, H. 2004, in Young Neutron Stars and Their Environments, IAU Symposium no. 218, eds. F. Camilo & B. Gaensler. San Francisco : ASP, p181

"Radio Emission from the Crab Wisps," Bietenholz, M. F., Frail, D. A., & Hester, J. J. 2002, in Neutron Stars in Supernova Remnants, ASP Conference Series, Vol. 271, eds. P. O. Slane & B. M. Gaensler. San Francisco: ASP, p.147

"Chandra Reveals the Dynamic Structure of the Inner Crab Nebula," Mori, K. Hester, J. J., et al. 2002, in Neutron Stars in Supernova Remnants, ASP Conference Series, Vol. 271, eds. P. O. Slane & B. M. Gaensler. San Francisco: ASP, p.157

"Chandra ACIS Observations of the Crab Nebula," Mori, K. & Hester, J. J., in Two Years of Science with Chandra, 2002, 106M.

"The Horsehead Nebula," Hester, J. J., 2002, Sky and Telescope, 103, 42.

"The Crab Nebula: The gift that keeps on giving," Hester, J. J., 2001, in Young Supernova Remnants: Eleventh Astrophysics Conference. AIP Conference Proceedings, Vol. 565. College Park, Maryland, ed. Stephen S. Holt, and Una Hwang, p.285-294.

"HST-FOS UV-Optical Spectra of Ejecta from Eta Carinae: An Atlas and Discussion," Dufour, R. J., Glover, T. W., Hester, J. J., Currie, D. G., van Orsow, D., & Walter, D. K. 1999, in Eta Carinae at the Millennium, ASP Conference Series #179, ed. J. Morse, R. Humphreys, & A. Damineli, ASP, 134.

"HST-STIS spectroscopy of the Bubble Nebula NGC7635," with Buckalew, B. et al., 1999, in Wolf-Rayet Phenomena in Massive Stars and Starburst Galaxies, Proceedings of the 193rd symposium of the International Astronomical Union, ASP, 336.

"The Pulsar Wind and Shock around the Crab Nebula," in Pulsar / SNR Interactions, Hester, J. J., 1998, Memorie della Societa Astronimia Italiana, 69, 883.

"Looking Where the Energy Is -- Observations of Wind Interactions in the Crab Nebula," Hester, J. J., 1998, in Neutron Stars and Pulsars, 30 Years after their Discovery, ed. N. Shibazaki, University Academy Press, Frontiers of Science series no. 24, p431.

"Hubble Space Telescope Observations of the Crab Nebula," Hester, J. J., 1998, Proceedings of the sixth Mexico-Texas Conference on Astrophysics, eds. R. Dufour, S. Torres-Peimbert, RevMex, 7, 90.

"Hubble Space Telescope Observations of the Environments of Young Stars," J. J. Hester, 1996, in Star Formation Near and Far.

"HST WFPC2 Observations of M16," J. J. Hester and P. A. Scowen, 1995, The Interplay Between Massive Star Formation, the ISM, and Galaxy Evolution, Institut d'Astrophysique de Paris.

"A Blast Wave / Cavity Wall Encounter in the Cygnus Loop," J. J. Hester and J. C. Raymond, 1992, in Massive Stars: Their Lives in the Interstellar Medium, ASP Conference Proceedings.

"Reduction of PG1115+080 images," with E. J. Groth, et al., 1991, 1st Year of HST Observations, 192.

"A Survey of Circumstellar Structure Around Young Low Mass Stars," S. Terebey, C. A. Beichman, T. N. Gautier, J. J. Hester, P. C. Meyers, and S. N. Vogel, 1990, Protostars and Planets

"Deep Narrow Band Imagery of the Diffuse ISM in M 33," J. J. Hester and S. R. Kulkarni, 1990, in The Interstellar Medium in External Galaxies, D. Hollenbach and H. Thronson, eds., NASA Publication 3084, p 288.

"The Interstellar Halo of Spiral Galaxies: NGC 891," S. R. Kulkarni, R. J. Rand, and J. J. Hester, 1990, in The Interstellar Medium in External Galaxies, D. Hollenbach and H. Thronson, eds., NASA Publication 3084, p 182.

"A Survey of Circumstellar Structure Around Young Low Mass Stars," S. Terebey, C. A. Beichman, T. N. Gautier, J. J. Hester, P. C. Meyers, and S. N. Vogel, 1990, in Astrophysics with Infrared Arrays, Richard Elston, ed.

"Observations of Non-radiative Shocks in the Cygnus Loop," J. J. Hester and J. C. Raymond, 1988, in Supernova Remnants and the Interstellar Medium, ed. Roger, R. S., and Landecker, T. L., (Cambridge: Cambridge University Press), p. 415.

INVITED TALKS

"Born Among Giants: The Solar System's Surprising Origins," Keynote speaker, Rice University Space Physics Alumnae dinner, November 15, 2008, Rice University, Houston, Texas

"The Astrophysical Birth Environment of the Solar System: Whence ^{26}Al?", April 15, 2008, AbSciCon2008, 5th Astrobiology Science Conference, Santa Clara, California

"What It Means 'To Know'", November 27, 2007, Clemson University 2007 Godfrey Lecture

"The Astrophysical Birth Environment of the Solar System: A cautionary tale about what we don't know and why," November 5, 2007, Workshop on the Chronology of Meteorites and the Early Solar System, November 5, 2007, Kauai, Hawaii

"Understanding Our Origins: Star Formation in H II Region Environments," November 9, 2006, "Cool Stars XIV", Pasadena, California

"Instabilities in Thermal and Relativisitic Plasmas in the Crab Nebula," March 12, 2006, "High Energy Density Laboratory Astrophysics," Rice University, Houston, Texas.

"Understanding our Origins: Low-Mass Star Formation in H II Region Environments," September 12, 2005, Keynote address (Berringer Lecture), 68th Annual Meeting of the Meteoritical Society, Gatlinburg, Tennessee.

"Understanding our Origins: Low-Mass Star Formation in H II Region Environments," November 9, 2004, "Chondrites and the Protoplanetary Disk," Kaua'i, Hawai'i.

"The Crab Nebula: The Gift that Keeps on Giving," October 25, 2003, Four Corners meeting of the American Physical Society, Tempe, Arizona.

"From Gas Bags to Blast Waves: Hubble Looks at the Stuff Between the Stars," August 23, 2003, Madison Wisconsin, Invited presentation at the colloquium honoring the life's work of Arthur D. Code.

"The Crab Nebula: My Astrophysics Laboratory is Bigger than Your Astrophysics Laboratory," February 24, 2002, Invited review at the 4th International Conference on High Energy Density Laboratory Astrophysics, University of Michigan, Ann Arbor.

"Twenty-First Century Astronomy," October 27, 2001, ASU, Society of Physics Students regional Zone Meeting.

"The Crab Synchrotron Nebula," August 15, 2001, Supernova Remnants and Pulsars Conference, Boston, Massachusetts.

"Chandra and HST Observations of the Crab Nebula," July 18, 2001 – Invited talk, ASP Chandra Symposium, St. Paul, Minnesota

"Ten Years of HST," July 15, 2001 – Invited talk, Astronomical Society of the Pacific Meeting, Universe 2001, St. Paul, Minnesota

"The Crab Nebula: The Gift that Keeps On Giving," October 17, 2000 – Invited talk, University of Maryland October Astrophysics Conference

"The Crab Movie: Preview of Coming Attractions," October 3, 2000 – Invited talk, Institute for Theoretical Physics conference on Spin, Magnetism, and Cooling of Young Neutron Stars

"Our Origins in the Cosmos," July 16, 2000 – Invited talk, Astronomical Society of the Pacific Universe 2000, Pasadena, CA

"Hubble Space Telescope and the Physics of Nebulae," Invited talk at the STScI Conference Commemorating the Tenth Anniversary of the launch of the Hubble Space Telescope, STScI, Baltimore, MD, April 12, 2000.

"The Digital Universe," Dartmouth Digital Imaging Symposium, Dartmouth University, New Hampshire, October 29, 1999.

"Ground-Based Support of Space-Based Astronomy," Air Force AMOS Conference, Maui, Hawaii, September 2, 1999.

"Hubble Space Telescope and the Physics of Nebulae," American Physical Society Four-Corners Meeting, Brigham Young University, Provo, UT, October 17, 1998.

"The Effect of Massive Stars on Ongoing Low Mass Star Formation," Protostars and Planets IV, Santa Barbara, CA, July 7, 1998.

"From Gas Bags to Blast Waves: HST and the Stuff Between the Stars," Astronomical Society of the Pacific Universe '98, June 28, 1998.

"Pulsar Dynamics and the Shock around the Crab," Elba Astrophysics Conference Series, Elba, Italy, June 2, 1998.

"Looking Where the Energy Is -- Pulsar Wind Interactions in the Crab Nebula," Rikkyo University, Tokyo, Japan, November 19, 1997.

"New Observations of the Crab Nebula," Rice University, Fourth Texas/Mexico Workshop on Astrophysics, Houston, Texas, March 8, 1997.

"The Shock and Extended Remnant around the Crab Nebula," University of Minnesota SNR Workshop, March 23-36, 1997.

"HST Observations of the Crab Nebula," The Sixth Texas/Mexico Astrophysics Seminar, March 8, 1997; Houston, Texas.

"Nebular Microbiology with the Hubble Space Telescope," American Association of Physics Teachers, January 8, 1997, Phoenix, Arizona.

"Structure of H II Regions," Second Naramata Summer School on the Interstellar Medium, August 26, 1996; Pentincton, British Columbia.

"HST Observations of Young Stars and Disks," University of Maryland Annual Symposium on Star Formation, October 14-16, 1996.

"HST Observations of Star Formation in the Eagle Nebula," Wellesley Star Formation Conference: Star and Planet Formation in Clusters, July 22, 1996.

"HST Observations of Gaseous Nebulae," American Association for the Advancement of Science Symposium on "A Year of Discovery with the Repaired Hubble Space Telescope;" February 20, 1995; Atlanta, GA.

"Science Goals of a Wide Field Narrow Bandpass Survey," Presented at the BATC Multi-color Sky Survey Workshop, Institute of Astronomy, National Central University, China; December 16, 1994.

One of 5 members of the Hubble Space Telescope Wide Field and Planetary Camera - 2 Science Team to address a special session of the January 1994 American Astronomical Society meeting on the successful repair of the Hubble Space Telescope.

"WF/PC Images of Emission Line Nebulae," Presented at "The First Year of HST Observations" workshop at the Space Telescope Science Institute; May 1991.

"How H II Regions Really Work," Presented at the 1992 Steward Observatories Internal Colloquium; April 1992.

SEMINARS AND COLLOQUIA (Since 1989)

"The Crab Nebula: An Astrophysical Chimera," November 10, 2008, Rice Space Institute, Rice University, Houston, Texas

"The Crab Nebula: An Astrophysical Chimera," October 29, 2008, Department of Astronomy, California Institute of Technology

"Understanding our Origins: Star Formation in H II Region Environments," April 18, 2008, Emory University Department of Physics

"The Crab Nebula: An Astrophysical Chimera", November 29, 2007, Research Seminar, Clemson University

"The Astrophysical Birth Environment of the Solar System," November 30, 2007, Department of Physics & Astronomy Colloquium, Clemson University

"Polarization of the Crab Nebula," September 28, 2007, Research seminar, North Carolina

"The Crab Nebula: The Gift that Keeps on Giving," February 13, 2007, Research seminar, Indiana University.

"Star Formation in H II Region Environments," February 13, 2007, Astronomy Department Colloquium, Indiana University.

"Understanding our Origins: Star Formation in H II Region Environments," October 1, 2005, North Carolina Astronomers Meeting, Keynote address

"Physical Insight, Mathematical Formalism, and the Limits on our Knowledge of the Universe," April 26, 2005, Math Awareness Month invited colloquium, Department of Mathematics and Statistics, Arizona State University

"Understanding Our Origins: Low-mass Star Formation in H II Region Environments," April 8, 2005, Colloquium, Department of Physics & Astronomy, University of New Mexico, Albequerque, New Mexico

"Understanding Our Origins: Low-mass Star Formation in H II Region Environments," March 24, 2005, National Optical Astronomy Observatories / Steward Observatories Joint Colloquium, Tucson, Arizona

"Understanding Our Origins: Low-mass Star Formation in H II Region Environments," February 16, 2005 – Seminar, Infrared Processing & Analysis Center, California Institute of Technology

"Understanding Our Origins: Formation of the Sun Near a Massive Star," February 2, 2005 – Colloquium, Arizona State University, Department of Geology

"The Crab Nebula: The Gift that Keeps on Giving," December 8, 2003 – Colloquium, American Museum of Natural History, New York City

"The Crab Nebula: The Gift that Keeps on Giving," November 15, 2003 – Colloquium, Department Astronomy, Penn State University.

"The Crab Nebula: The Gift that Keeps on Giving," October 15, 2003 – Colloquium, Department of Physics and Astronomy, Rice University, Houston, Texas.

"21st Century Astronomy," October 16, 2003 – Seminar, Department of Physics and Astronomy, Rice University, Houston, Texas.

"The Crab Nebula: The Gift that Keeps on Giving," April 22, 2003 – Colloquium, Astronomy Department, Princeton University.

"The Crab Nebula: The Gift that Keeps on Giving," February 27, 2003 – Colloquium, Astronomy Department, Cornell University.

"The Crab Nebula: The Gift that Keeps on Giving," February 21, 2003 – Colloquium, U.S. Naval Observatory, Flagstaff, Arizona.

"The Crab Nebula," April 25, 2002 – Colloquium, Department of Astronomy, University of California, Berkeley.

"The Crab Nebula: The Gift that Keeps on Giving," April 10, 2002 – Colloquium, Department of Physics and Astronomy, University of Alabama, Tuscaloosa.

"Twenty-First Century Astronomy," March 2002 – Presentation at Banquet for ASU Million Dollar Donars

"The Crab Nebula: The Gift that Keeps on Giving," February 8, 2002 – Colloquium, Harvard-Smithsonian Center for Astrophysics

"The Crab Nebula: The Gift that Keeps on Giving," October 24, 2001 – Colloquium, Astronomy Department, UCLA

"Origins: A Universe of Process and Change," November 3, 2000 – Colloquium, Columbia University Biosphere campus

"The Crab Nebula: The Gift that Keeps on Giving," November 2, 2000 – Joint NOAO/UA Colloquium.

"Physics of Galactic Nebulae," September 29, 2000 – Colloquium, Department of Physics & Astronomy, University of New Mexico

"The Crab Nebula," September 29, 2000 – Research seminar, University of New Mexico.

"Physics of Galactic Nebulae," September 13, 2000 – Colloquium, Department of Physics, Rice University

"The Crab Nebula," September 13, 2000 – Research seminar, Rice University

"Small Scale Structure and the Physics of Nebulae," Department of Physics, University of Texas – El Paso, April 18, 2000.

"Physics for Elementary Science Teachers," Gilbert Unified School District, Gilbert AZ, June 28-30, 1999.

"What is Science?," Gilbert Unified School District, Gilbert, AZ, May 25-26, 1999.

"Elementary Science Education Reform," ASU, May 24, 1999.

"HST Observations of the Crab Nebula," Rice University, Houston Texas, October 14, 1997.

"HST Observations of the Crab Nebula," University of California at Berkeley, September 15, 1997.

"HST and the Physics of Nebulae," University of California at Santa Cruz, April 9, 1997.

"Nebular Microbiology with the Hubble Space Telescope," Department of Physics, Oklahoma State University, Stillwater, Oklahoma; February 20, 1997.

"HST Observations of the Crab Nebula," Department of Physics and Astronomy, Arizona State University, October 31, 1996.

"HST Observations of the Crab Nebula," Department of Physics and Astronomy, Society of Physics Students, ASU, September 25, 1996.

"Hubble Space Telescope Observations of the Crab Nebula," Department of Astrophysical, Planetary, and Atmospheric Sciences, University of Colorado at Boulder; September 9, 1996.

"Nebular Microbiology with the Hubble Space Telescope," Fermi National Laboratory public colloqium, Chicago, Illinois; May 1, 1996.

"Nebular Microbiology with the Hubble Space Telescope," Rice University, Houston, Texas; April 18, 1996.

"Nebular Microbiology with the Hubble Space Telescope," Southwest Research Institute Colloquium, San Antonio, Texas; April 17, 1996.

"Nebular Microbiology with the Hubble Space Telescope," Center Scientific Public Colloquium Series, Goddard Space Flight Center, Greenbelt, MD; March 8, 1996.

"Nebular Microbiology with the Hubble Space Telescope," University of Washington; February 22, 1996.

"Hubble Space Telescope Observations of the Crab Nebula," University of California, Berkeley; February 21, 1996.

"Nebular Microbiology with the Hubble Space Telescope," University of California, Berkeley; February 21, 1996.

"Nebular Microbiology with the Hubble Space Telescope," New Mexico State University; February 16, 1996.

"Recent Results from the Hubble Space Telescope," National Optical Astronomy Observatories; January 11, 1996.

"Nebular Microbiology with the Hubble Space Telescope," Arizona State University; November 29, 1995.

"Nebular Microbiology with the Hubble Space Telescope," Northwestern University; November 14, 1995.

"Hubble Space Telescope Imaging of Nebulae," National Radio Astronomy Observatory; October 20, 1995.

"Recovering the Promise of the HST," National Central University, Chung-Li, China; December 15, 1994.

"HST and ROSAT Imaging of the Crab Nebula," University of Minnesota Department of Astronomy; November 18, 1994.

"HST and ROSAT Imaging of the Crab Nebula," University of Maryland Department of Astronomy; November 16, 1994.

"Recovering the Promise of the HST," University of Illinois Department of Astronomy; April 19, 1994.

"The Repair of the Hubble Space Telescope," University of California at Berkeley Department of Astronomy; March 3, 1994.

"Early Results from the Repaired Hubble Space Telescope," Steward Observatories / KPNO Joint Colloquium; February 3, 1994.

"Blast Wave / Cloud Interactions in the Cygnus Loop SNR," Steward Observatories / KPNO Joint Colloquium; April 1992.

"The Physics of Collisionless Shocks," Arizona State University Dept. of Physics and Astronomy; October 1991.

"Balmer-Dominated Shocks in the Cygnus Loop SNR," Lawrence Livermore National Laboratory; October 1991.

"Pulsar Wind Nebulae," Department of Astronomy, University of California, Berkeley 1990.

"Infrared and Optical Imaging of the Crab Nebula," NASA-Ames Research Center, 1990.

"Infrared and Optical Imaging of the Crab Nebula," Arizona State University Dept. of Physics and Astronomy; 1990.

"Detailed Spatial and Spectral Interpretation of a Bright Filament in The Cygnus Loop," Arizona State University Dept. of Physics and Astronomy; 1989.

"Detailed Spatial and Spectral Interpretation of a Bright Filament in The Cygnus Loop," Rice University Dept. of Space Physics and Astronomy; 1989.

CONTRIBUTED PRESENTATIONS

"HST ACS Polarization Observations of the Crab Nebula," Hester, J. J., 2007, BAAS, 211, 10026

"The Role of Synchrotron Cooling in Modeling the Dynamic Wisps of the Crab Nebula," Foy, J. P. & Hester, J. J., 2007, BAAS, 211, 11502

"An Analysis of Triggered Star Formation in the H II Region NGC 2467," Snider, K. D., Hester, J. J., Desch, S. J., Healy, K. R., Bally, J. 2007, BAAS, 211, 8908

"A Northwest-Southeast Asymmetry in the Structure of the Crab Nebula," 2007, Loll, A. M., Hester, J. J., Blair, W. P., Sankrit, R. BAAS, 211, 10025

"Modeling the Crab Synchrotron Nebula by Including Radiative Losses in Flow Dynamics," Foy, J. P., Hester, J. J. 2006, BAAS, 209, 15612

"Spitzer Imaging of NGC 2467: Evidence for Triggered Low-Mass Star Formation in H II Region Environments," Snider, K. D., Hester, J. J., Desch, S. J., Healy, K. R., Bally, 2006, BAAS, 209, 10515.

"A Hubble Space Telescope WFPC-2 Optical Survey of Dust in the Crab Nebula, Loll, A. M., Hester, J. J., Sankrit, R. W., Blair, W. P., 2006, BAAS, 209, 15023.

"A Synchrotron Cooling Instability Model of the Wisps in the Crab Nebula," Foy, J. P., Hester, J. J., 2006, BAAS, 208, 302.

"Are the Wisps in the Crab Nebula due to a Synchrotron Cooling Instablity?," Foy, J. P., Hester, J. J. 2005, BAAS, 107, 1721.

"A Very Large Array Survey for Water Maser Activity in Two HII Regions," Healy, K. R., Claussen, M. J., Hester, J. J. 2005, BAAS, 207, 18405.

"Are the Wisps in the Crab Nebula due to a Synchrotron Cooling Instablity?," Foy, J. P., Hester, J. J. 2005, BAAS, 107, 17215.

"A Synchrotron Cooling Instability Model of the Wisps in the Crab Nebula," Foy, J. P., & Hester, J. J. 2005, BAAS, 206, 4402.

"Understanding our Origions: Star Formation in H II Region Environments," Hester, J. J., Healy, K. R., & Desch, S. J. 2004, BAAS, 205, 10501.

"The ``Aerogel'' Model for the Origin of the Short-Lived Radionuclides in the Early Solar System," Desch, S. J., Ouellette, N., Hester, J. J., Leshin, L. A., 2004, BAAS, 205, 12703.

"A Systematic Survey of Star Formation with the ORION MIDEX Mission," Scowen, P. A. et al., 2004, BAAS, 205, 10905.

"Modeling Dynamic Wisps in the Crab Nebula as Synchrotron Cooling Instabilities," Foy, J. P. & Hester, J. J. 2004, BAAS, 205, 10609.

"HST WFPC2 Imaging of the Crab Nebula Ejecta," Loll, A., Hester, J. J., Sankrit, R., & Blair, W. P. 2004, BAAS, 10608.

"2MASS, MSX, & DSS Images of M17 and NGC2175: Low-mass Star Formation in Dense H II Region Environments," Snider, K., Hester, J., & Healy, K. 2004, BAAS, 205, 10503.

"HST WFPC2 Imaging of the G353.2+0.9 H II Region in NGC 357," Healy, K. R., Hester, J. J., Scowen, P. A., & Snider, K . D. 2004, BAAS, 205, 10502.

"PSR B1951+32: A Bow Shock-Confined X-ray Nebula, a Synchrotron Knot, and an Optical Counterpart Candidate," Moon, D.-S. et al., 2004, AAS, HEAD meeting #8.

"A Systematic Survey of Star Formation with the ORION MIDEX Mission," Scowen, P. et al., 2004, BAAS, 204, 1104.

"Year-scale Morphological Variations of the X-ray Crab Nebula," Mori, K. Burrows, D. N., Pavlov, G. G., Hester, J. J., Shibata, S., Tsunemi, H., 2004, IAUS, 218, 181.

"Dark Energy, High-redshift Galaxies, and Star Formation with ORION: HST-SM5 Wide Field Camera," Morse, J., Scowen, P., Hester, J., Beasley, M., et al. 2004, BAAS, 203, 4606.

"Space-based Observations of Star Formation using ORION: THE MIDEX," Scowen, P. et al., 2003, BAAS, 203, 708.

"HST Multi-Epoch Observations of the XZ Tauri Outflow," Krist, J. E., Stapelfeldt, K. R., Hester, J. J., Healy, K. R., 2003, IAUS, 221, 270.

"HST WFPC2 Imaging of Crab Nebula Ejecta," Hester, J.J., Loll, A., Sankrit, R., Blair, W.P., presented at *How Does the Galaxy Work? A Galactic Tertulia*, June 23-27, 2003, Granada, Spain.

"The Evolution of Low Mass YSOs in H II Region Environments," Hester, J.J., presented at *How Does the Galaxy Work? A Galactic Tertulia*, June 23-27, 2003, Granada, Spain.

"HST Multi-Epoch Observations of the XZ Tauri Outflow," Krist, J.E., Stapelfeldt, K.R., Hester, J.J., & Healy, K., 2003, in *Star Formation at High Angular Resolution*, IAU Symposium 221, Sydney, Australia.

"Year-Scale Morphological Variation in the X-ray Crab Nebula," Mori, K., Tsunemi, H., Burrows, D.N., Hester, J.M., & Shibata, S., 2003, in *Young Neutron Stars and their Environment*, IAU Symposium 218, Sydney, Australia.

"Dynamics of the Crab Synchrotron Nebula," Hester, J., Burrows, D., et al., 2002, BAAS, 200, 1511.

"Water Masers and YSOs in H II Regions - A Continuing Survey," Healy, K. R., Claussen, M. J., & Hester, J. J. 2002, BAAS, 200, 7122.

"New HST Observations of the Wolf-Rayet Nebula NGC 6888," Dufour, R. J., Moore, B. D., Hester, J. J., Scowen, P. A., & Buckalew, B. A., 2002, BAAS, 200, 7402.

"Systematic Errors In Elemental Abundances Derived From Nebular Spectra," Moore, B. D., Hester, J. J., & Dufour, R. J., 2002, BAAS, 200, 7808.

"X-ray spectral variation of the Crab Nebula in arc-second scale," Mori, K., Burrows, D. N., Hester, J. J., Tsunemi, H. 2002, BAAS, 201, 4408.

"Water Masers and YSOs in H II Regions - A Continuing Survey," Healy, K. R., Claussen, M. J., & Hester, J. J., 2001, BAAS, 199, 412.

"HST and Chandra Monitoring of the Crab Synchrotron Nebula," Hester, J. J., et al., 2001, BAAS, 199, 1261.

"Analysis and Models of Small-Scale Structures in the Wind-Blown Nebulae NGC 6888 and 7635," Moore, B. D., & Hester, J. J., 2001, BAAS, 198, 2804.

"Water Masers and YSOs in H II Regions: Preliminary Results of a VLA survey," Healy, K. R., Claussen, M. J., Hester, J. J., 2000, BAAS, 197, 4302.

"Discovery of Spatial Structures in the X-ray Image of the Crab Nebula," Weisskopf, M. C., Marshall, H. L., Hester, J. J., et al. 1999, BAAS, 195, 11204.

"New HST WFPC2 Images of the Bubble Nebula, NGC 7635," Walker, D. K., Scowen, P. A., Hester, J. J., Moore, B. D., Dufour, R. J., Hartigan, P. M., & Buckalew, B. 1999, BAAS, 195, 5307.

"Analysis of HST WFPC2 Images of NGC 7635," Moore, B. D., Hester, J. J., Scowen, P. A., Walter, D. K., Dufour, R. J., Hartigan, P. M, & Buckalew, B. 1999, BAAS, 195, 5306.

"Narrowband Imaging and Spectroscopy of the Crab Nebula," van Tassell, H. A., Hester, J. J., Szentgyorgyi, A., & Sankrit, R., 1999, BAAS, 194, 8506.

"VLA Observations of the Cygnus Loop Spur," Healy, K. R., Hester, J. J., Braun, R., & Raymond, J. C., 1999, BAAS, 194, 8503.

"Analysis of HST WF/PC and WFPC2 Images of Wind-Blown Nebulae," Moore, B. D., Hester, J. J., Scowen, P. A., & Walter, D. K., 1999, BAAS, 194, 7106.

"HST WFPC2 Observations of EGGs and a YSO Jet in M 20," Hester, J.J., Scowen, P. A., Stapelfeldt, K. R., & Krist, J., 1999, BAAS, 194, 6810.

"HST STIS Spectroscopy of the Bubble Nebula, NGC 7635," Buckalew, B., Dufour, R. J., Ghavamian, P., Hartigan, P., Walter, D., Hester, J. & Scowen, P., 1999, BAAS, 194, 4701.

"HST/WFPC Observations of the Wind-Blown Nebula NGC 7635," Moore, B. D., Hester, J. J., & Scowen, P. A., 1998, B.A.A.S., 193, 6910.

"HST/WFPC2 Images of XZ Tauri: Early Evolution of a Herbig-Haro Bowshock," Krist, J. E., Burrows, C. J., Hester, J. J., Stapelfeldt, K. R., Watson, A. M. 1998, B.A.A.S., 193, 1706.

"[Ne V] Emission on the Skin of the Crab Nebula," Van Tassell, H. A., Hester, J. J., & Sankrit, R., 1998, B.A.A.S., 192, 1804.

"HST Observations of the Wind-Blown Nebula NGC 6888," Moore, B. D,. Hester, J. J., & Scowen, P. A., 1997, B.A.A.S., 190, 701.

"Photoevaporative Flows in H II Regions," Sankrit, R., and Hester, J. J., 1997, B.A.A.S., 190, 4108.

"HST WFPC-2 Observations of Typical Star Formation in M101," Scowen, P. A., Hester, J. J., Gallagher, J. S. III, Wilcots, E., 1996, B.A.A.S., 28, 601.

"Extinction Corrections and the Decrement in He I lines in the Orion Nebula," Martin, P. G., Rubin, R. H., Ferland, G. J., Dufour, R. J., O'Dell, C. R., Baldwin, J. A., Hester, J. J., & Walter, D. K., 1996, B.A.A.S, 28, 6808.

"The Extremely Dynamic Structure of the Inner Crab Nebula," J. J. Hester, P. A. Scowen, R. Sankrit, F. C. Michel, J. R. Graham, A. Watson, J. Gallagher, 1996, B.A.A.S., 28, 950.

"The Remarkable Knot in the Inner Crab Nebula," J. R. Graham, R. Sankrit, J. J. Hester, P. A. Scowen, F. C. Michel, A. Watson, J. S. Gallagher, 1996, B.A.A.S., 28, 950.

"The Polarization and Spectral Indices of the Inner Crab Synchrotron Nebula at WFPC2 Resolution," A. M. Watson, J. J. Hester, H. Van Tassel, P. A. Scowen, R. Sankrit, F. C. Michel, J. R. Graham, J. S. Gallager, 1996, B.A.A.S., 28, 950.

"Dynamics and Magnetic Morphology of the Outer Crab Synchrotron Nebula," P. A. Scowen, J. J. Hester, R. Sankrit, A. Watson, F. C. Michel, J. R. Graham, J. S. Gallagher, 1996, B.A.A.S., 28, 951.

"Observation of an Apparent Shock Transition in a Relativistic Pulsar Wind," F. C. Michel, J. J. Hester, P. A. Scowen, R. Sankrit, J. Graham, A. Watson, J. Gallagher, 1996, B.A.A.S., 28, 951.

"Ionization Structure of the Crab Filaments," R. Sankrit, J. J. Hester, P. A. Scowen, 1996, B.A.A.S., 28, 951.

"A New 3-D Model for the Homunculus of η Carinae," D. Dowling, D. Currie, E. Shaya, J. J. Hester, P. Scowen, 1996, B.A.A.S., 28, 954.

"Young Stars in the Cr232 region of the Carinae Nebula," D. Vanorsow, R. J. Dufour, D. G. Currie, J. J. Hester, & D. K. Walter, 1996, B.A.A.S., 28, 883.

"HST Parallel WFPC2 Imagery of a Region in the Carinae Nebula," R. J. Dufour, D. Van Orsow, D. K. Walter, J. J. Hester, & D. G. Currie, 1995, B. A. A. S., 27, 1440.

"Effects of Extinction on Broad Band Spectra of H II Regions," with G. J. Ferland, et al., 1995, B. A. A. S., 27, 1439.

"The N/O Abundance Ratio in the Orion Nebula from UV Lines," with R. H. Rubin, et al., 1995, B. A. A. S., 27, 1439.

"HST FOS Spectroscopy of Ejecta from Eta Carinae," T. W. Glover, R. J. Dufour, J. J. Hester, D. G. Currie, D. Van Orsow, & D. K. Walter, 1995, B. A. A. S., 27, 1344.

"WFPC2 Imaging of HH 1-2 and HH 34," J. J. Hester and P. A. Scowen, 1995, Mexico-Texas Conference on Astrophysics.

"WFPC2 Imaging of HH 1-2 and HH 34," J. J. Hester, P. A. Scowen, R. Lynds, and E. J. O'Neil, Jr., 1994, B. A. A. S., 26, 1386.

"The Status of WFPC2 Calibration," J. T. Trauger, J. A. Holtzman, J. J. Hester, and C. J. Burrows, 1994, B. A. A. S., 26, 1320.

"The Beijing-Arizona-Taipei-Connecticut (BATC) Color Survey of the Sky," with D. Burstein, et al., B. A. A. S., 26, 1320.

"WFPC2 Observations of the HH 30 Disk and Jet," with K. R. Stapelfeldt et al., 1994, B. A. A. S., 26, 1387.

"Optical and X-ray Observations of the Western Edge of the Cygnus Loop," N. A. Levenson, J. R. Graham, J. J. Hester, R. Petre, and J. C. Raymond, 1994, B. A. A. S., 26, 1394.

"WFPC2 Observations of the Nuclear Starburst in NGC 253," with A. M. Watson, et al., 1994, B. A. A. S., 26, 1432.

"Ionization Structure in the 30 Doradus Nebula from WFPC2 Imagery," P. A. Scowen, J. J. Hester, J. Gallagher, 1994, et al., B. A. A. S., 26, 1452.

"HST Astrometric Motions of η Carinae from WF2, WF1, and PC1," D. M. Dowling, D. G. Currie, E. J. Shaya, J. J. Hester, and E. Groth, 1994, B. A. A. S., 26, 1456.

"HST WFPC-2 Observations of the Outer Optical Filaments of the Crab Nebula," J. J. Hester, P. A. Scowen, J. Gallagher, and the WFPC-2 IDT, 1994, B.A.A.S., 26, 951.

"HST WFPC-2 Observations of the Inner Synchrotron Component of the Crab Nebula," P. A. Scowen, J. J. Hester, J. Gallagher, R. Lynds, E. J. O'Neil, Jr., and the WF/PC and WFPC-2 IDTs, 1994, B.A.A.S., 26, 951.

"An X-ray and Optical Study of the Interaction of the Cygnus Loop Supernova Remnant with and Interstellar Cloud," J. R. Graham, N. A. Levenson, J. J. Hester, J. C. Raymond, and R. Petre, 1994, B.A.A.S, 26, 951.

"Far Ultraviolet Imaging of the Core of NGC 6681 with WFPC-2," with J. R. Mould, et al., 1994, B.A.A.S., 26, 956.

"Exploring the Center of the Giant Virgo Cluster Spiral Galaxy M100 with the HST Planetary Camera 2," with J. Gallagher, et al., 1994, B.A.A.S., 26, 939.

"Hubble Astometry and the 3D Structure of eta Carinae," with D. G. Currie, et al., 1994, B.A.A.S., 26, 914.

"WFPC-2 Observations of the Circumstellar Nebulosity of T Tau and HL Tau," with K. R. Stapelfeldt, et al., 1994, B.A.A.S., 26, 883.

"HST UV and Emission Line Images of the SN1987A," C. J. Burrows, J. J. Hester, J. Krist, K. Stapelfeldt, J. Trauger, and the WFPC-2 IDT, 1994, B.A.A.S., \bf, 969.

"Planetary Camera Imaging of the Nucleus of M51," C. J. Grillmair, S. M. Faber, J. J. Hester, P. A. Scowen, and T. R. Lauer, 1994, B.A.A.S., 26, 891.

"HST WFPC-2 Observations of the Crab Nebula Filaments," J. J. Hester, P. A. Scowen, J. Gallagher, and the WFPC-2 IDT, May 1994, presented at The Analysis of Emission Lines Symposium honoring D. E. Osterbrock and M. J. Seaton, Space Telescope Science Institute.

"HST WFPC-2 Emission Line Imagery of the 30 Doradus Nebula," P. A. Scowen, J. J. Hester, and the WF/PC-I and WFPC-2 IDTs, May 1994, presented at The Analysis of Emission Lines Symposium honoring D. E. Osterbrock and M. J. Seaton, Space Telescope Science Institute.

"HST FOS Spectroscopy of the Orion Nebula," R.H. Rubin, D.K. Walter, R.J. Dufour, C.R. O'Dell, J.A. Baldwin, G.J. Ferland, J.J. Hester, P.G. Martin, May 1994, presented at The Analysis of Emission Lines Symposium honoring D. E. Osterbrock and M. J. Seaton, Space Telescope Science Institute.

"A New GHRS Spectrum of the Orion Nebula," D.K. Walter, R.H. Rubin, R.J. Dufour, C.R. O'Dell, J.A. Baldwin, G.J. Ferland, J.J. Hester, P.G. Martin, May 1994, presented at The Analysis of Emission Lines Symposium honoring D. E. Osterbrock and M. J. Seaton, Space Telescope Science Institute.

"Hubble Space Telescope Images of the Gas Near the Center of 30 Doradus," P. A. Scowen, D. A. Hunter, J. J. Hester, E. Shaya, and the WF/PC IDT, 1994, B.A.A.S., 25, 1309.

Poster presentation of the early results from the First HST Servicing Mission at the January 1994 meeting of the American Astronomical Society in Washington D.C.

"WF/PC Imaging of the Cygnus Loop," J. J. Hester, 1993, A Workshop on Supernova Remnants and the Physics of Strong Shock Waves, NCSU.

"ROSAT Observations of a Blast Wave / Cloud Interaction in the Cygnus Loop," N. Levinson, J. R. Graham, J. J. Hester, R. L. Petre, and J. C. Raymond, 1993, A Workshop on Supernova Remnants and the Physics of Strong Shock Waves, NCSU.

"ROSAT Observations of IC443," J. G. Rho, R. Petre, and J. J. Hester, 1993, A Workshop on Supernova Remnants and the Physics of Strong Shock Waves, NCSU.

"Hubble Space Telescope WF/PC Imaging of the Cygnus Loop," J. J. Hester, P. A. Scowen, and T. R. Lauer, 1992, B.A.A.S., 24, 1232.

"Morphology and Ionization Structure of the Warm Ionized Medium in M33," S. J. Beeson and J. J. Hester, 1992,B.A.A.S., 24, 1132.

"Discovery of New Objects in the Orion Nebula on HST Images: Shocks and Protoplanetary Disks," C. R. O'Dell, Z. Wen, X. Hu, and J. J. Hester, 1992, B.A.A.S., 24, 1147.

"Ultraviolet Observations of Central Stars of Planetary Nebulae," A. D. Code, G. H. Mackie, and J. J. Hester, 1992, B.A.A.S., 24, 1180.

"ROSAT Pointed Observations of the Vela Supernova Remnant," W. Craig, S. Kahn, and J. J. Hester, 1992, B.A.A.S., 24, 1197.

"A Study of the H II Region Populations of M101, M51, and NGC 4449," P. A. Scowen, R. J. Dufour, and J. J. Hester, 1992, B.A.A.S., 24, 12 10.

"An Imaging Fabry-Perot Study of the Wolf-Rayet Shell NGC 6888," J. E. Reed, J. J. Hester, S. N. Vogel, and D. Van Buren, 1992, B.A.A.S., 24, 1226.

"X-ray and Optical Observations of the Supernova Remnant CTB1," C. Hailey, W. Craig, J. J. Hester, and R. Pisarski 1992, B.A.A.S., 24, 1233.

"A Design for and Inverted Cassegrain Camera," D. A. Marcus and J. J. Hester, 1992, B.A.A.S., 24, 1282.

"An Emission Line Survey of Galactic H II Regions," J. J. Hester, R. J. Dufour, R. A. R. Parker, and P. A. Scowen, 1991, B.A.A.S., 23, 1364.

"Warm Ionized Gas in the Edge-on Galaxies NGC 4565 and NGC 4631," R. J. Rand, S. R. Kulkarni, and J. J. Hester, 1991, B.A.A.S., 23, 1461.

"HST Imaging of Distant Giant Elliptical Radio Galaxies," R. A. Windhorst, \etal, 1991, B.A.A.S., 23, 1334.

"HST WF/PC Observations of M42," J. J. Hester \etal, 1990, B.A.A.S., 22, 1277.

"H_2 Excitation by Magnetic Shock Precursors in the Cygnus Loop," J. R. Graham, G. S. Wright, J. J. Hester, and A. J. Longmore, 1990, B.A.A.S., 22, 1251.

"HST WF/PC Observations of Eta Carina," R. M. Light, J. A. Westphal, J. J. Hester, \etal 1990, B.A.A.S., 22, 1276.

"An Analysis of the WN Shell Nebula NGC 6888 Using CCD Imagery and Spectrophotometry," P. M. Mitra, R. J. Dufour, R. A. R. Parker, and J. J. Hester, 1990, B. A. A. S., 22, 1251.

"Deep Hα Imagery of Tycho's Supernova Remnant and its Surroundings," D. A. Levine and J. J. Hester, 1990, B. A. A. S., 22, 1252.

"Infrared Imaging of G70.7, An Embedded O Star Bow Shock," D. Van Buren and J. J. Hester, 1990, B. A. A. S., 22, 1270.

"Hubble Space Telescope WF/PC Images of 30 Doradus," with B. G. Campbell \etal 1990, B. A. A. S., 22, 1276.

"Dust Distribution and Ionization Structure in the Orion Nebula," D. K. Walters, R. J. Dufour, and J. J. Hester, 1990, B. A. A. S., 22, 1298.

"Infrared and Optical Imagery of the Crab Nebula," J. J. Hester, J. R. Graham, C. A. Beichman, and T. N. Gautier, III, 1990, Bull. A. A. S., 21, 1202.

"CCD Imaging Polarimetry of the Crab Nebula," F. C. Michel, P. A. Scowen, R. J. Dufour, and J. J. Hester, 1990, Bull. A. A. S., 21, 1202.

"Imaging Spectrophotometry of H II Regions in M 101," P. A. Scowen, R. J. Dufour, J. J. Hester, and R. A. R. Parker, 1990, Bull. A. A. S., 21.

"Warm Ionized Gas in the Edge-on Spirals NGC 891 and NGC 3079," J. J. Hester, S. R. Kulkarni, R. J. Rand, and W. T. Deich, 1990, The Interstellar Disk/Halo Connection.

"Pulsar Wind Nebulae," J. J. Hester and S. R. Kulkarni, 1988, Bull. A. A. S., 20, 1050.

"Optical Imagery and Spectrophotometry of CTB 80," J. J. Hester and S. R. Kulkarni, 1987, Bull. A. A. S., 19.

"CCD Imagery of NGC 6888," M. Mitra, J. J. Hester, R. J. Dufour, and R. A. R. Parker, 1987, Bull. A. A. S., 19, 1097.

"Narrow-Band Observations of NGC 7635 and NGC 2359," T. Jernigan, R. J. Dufour, and J. J. Hester, 1987, Bull. A. A. S., 19, 1097.

"CCD Imagery of Fields in the Cygnus Loop and IC 443," J. J. Hester, 1986, Bull. A. A. S., 18, 951.

"CCD Imagery of Galactic and Extragalactic H II Regions," R. J. Dufour, J. J. Hester, and R. A. R. Parker, 1986, Bull. A. A. S., 18, 1032.

"The Velocity Signature of Sheets in the Cygnus Loop SNR," J. J. Hester, J. C. Raymond, and B. E. Woodgate, 1985, Bull. A. A. S., 17, 884.

"Are Supernova Remnant Filaments Really Filaments?," 1984, Bull. A. A. S., 16.

"A 21 cm Line Survey of a Large, Complete Sample of Elliptical Galaxies," L. L. Dressel and J. J. Hester, 1984, Bull. A. A. S., 16 , 539.

"Digital Analysis of Narrow-Band Imagery of the Cygnus Loop," J. J. Hester, R. A. R. Parker, and R. J. Dufour 1983, Bull. A. A. S., 15, 680.

SELECTED PUBLIC TALKS (Incomplete; From 1992)

"From the Big Bang to Big Brains: The Origin of Structure in an Evolving Universe," November 13, 2008, Lunar & Planetary Institute, Houson, Texas

Filming for National Geographic Channel production, "Hubble's Amazing Universe," July 11, 2008

"To Know," Emory University, Atlanta, Georgia, April 18, 2008

"The Bizarre World of Quantum Mechanics," Desert Foothills Astronomy Club, Anthem, Arizona, 27 February, 2008

"Children of the Big Bang," ASU President's Community Enrichment Program, Kerr Cultural Center, 21 February, 2008

Filming for National Geographic Channel program on the Hubble Space Telescope, January 8, 2008

Filming for Naked Science program on the origins of the Solar System, May 29, 2007.

"Descendants of the Big Bang," April 19, 2007, Arizona Science Center, presentation to SW regional meeting of the World President's Organization

"Born Among Giants: The Solar System's Violent Origins," West Valley Astronomy Club, April 3, 2007

"From the Big Bang to Big Brains," February 18, 2007, Meeting of the Arizona Chapter of the English Speaking Union

"Astronomy Night," February 8, 2007, Public program, Gilbert Unified School District

"From the Big Bang to Big Brains," December 2, 2006, ASU, Hopkins Center for Talented Youth

"From the Big Bang to Big Brains," October 28, 2006, ASU Earth & Space Exploration Day

"From the Big Bang to Big Brains," October 25, 2006, Desert Foothills Astronomy Club

"13.7 Billion Years and Counting," May 6, 2006, Arizona Science Center public lecture

"From the Big Bang to Big Brains," April 21, 2006, Motorola Corporation, Chandler

"The Solar System's Violent Origins," April 14, 2006, Phoenix Astronomical Society

"The Origin of Structure in the Universe," February 16, 2006, Tempe, Arizona, Arizona Nanotechnology Society

"From the Big Bang to Big Brains I," February 1, 2006, Scottsdale, Arizona. This was the first in a series of 5 lectures given as part of the ASU President's Community Enrichment Program.

"From the Big Bang to Big Brains II: What it Means 'To Know' ", February 8, 2006, ASU PCEP

"From the Big Bang to Big Brains III: A Universe of Physical Law", February 15, 2006, ASU PCEP

"From the Big Bang to Big Brains IV: The Origin of Structure", February 22, 2006, ASU PCEP

"From the Big Bang to Big Brains V: The Algorithm of Evolution", March 1, 2006, ASU PCEP

"Born Among Giants: The Surprising Story of the Solar System's Violent Origins," January 28, 2006, 38th Annual Geology Museum Open House, Rutgers University, New Brunswick, New Jersey

"A Child of Violence: New Discoveries About the Sun's Cosmic Origins," November 15, 2005, Sun City West Astronomy Club

"From the Big Bang to Big Brains: The Origin of Structure in an Evolving Universe," October 1, 2005, Guest Lecturer, Hampden-Syndey College, Virginia

"From the Big Bang to Big Brains: The Origin of Structure in an Evolving Universe," September 30, 2005, Cline Observatory Astronomy Day Lecturer, Greensboro, North Carolina

"What it Means to Know," September 30, 2005, Greensboro Technical College, Greensboro, North Carolina

"Born With a Bang, Not a Whimper," August 20, 2005, East Valley Astronomical Society, Phoenix, Arizona

"The Origin of Structure in an Evolving Unvierse," April 16, 2005, Arizona Science Center Astronomy Day presentation

"The Hubble Space Telescope: A 15 Year Perspective," April 25, 2005, Arizona Science Center, Public talk commemorating the 15th Anniversary of the Hubble Space Telescope

"From the Big Bang to Big Brains," April 8, 2005, LodeStar Astronomy Center, Albuquerque, New Mexico

"Testing the God Hypothesis: What it Means to Know," April 8, 2005, New Mexico Humanists Society

"21st Century Astronomy," October 20, 27, 2004, Clinics for Valley AcaDec teams on 2004 AcaDec Superquiz topic on Astronomy.

"21st Century Astronomy," September 10, 2004, Presentation for Academic Decathlon coaches.

"Testing the God Hypothesis: What it Means to Know," August 14, 2004, Humanicon Southwest, Regional Humanist convention, Phoenix, AZ.

"Perspectives on the Space Station," taped interview May 13, 2004, Arizona Science Center

Guest on "Here & Now" on KJZZ, Phoenix National Public Radio outlet.

"Man in the Universe," January 28 – March 3, 2004, Six week "Adventures in Learning" course offered through the President's Community Enrichment Program.

"Origins: A Brief History of Structure," January 15, 2004, Invited public lecture reprising selection as "Last Lecture" recipient, Kerr Cultural Center, Phoenix, Arizona

"Origins: A Brief History of Structure in the Universe," December 8, 2003, Invited public lecture as part of the Frontiers in Astrophysics Series of the American Museum of Natural History, New York City

"The Origin of Structure," October 10, 2003, Gilbert, AZ, Riparian Society presentation

"The Origin of Structure," September 26, 2003, Tempe, AZ, presentation arranged by Sky & Telescope magazine

"The Origin of Structure," May 9, 2003, Phoenix, AZ, presentation arranged by Sky & Telescope magazine

"21st Century Astronomy," May 7, 2003, "Adults Night Out" presentation at the Arizona Science Center

"Testing the God Hypothesis: What it Means To Know," April 27, 2003, Presentation to Greater Phoenix Humanists Society

"What it Means To Know," March 14, 2003, Presentation to Phoenix Mensans

"The Origin of Structure," February 6, 2003, DC Ranch, ASU President's Community Outreach Presentation

"The Origin of Structure," January 28, 2003, Troon Country Club, ASU President's Community Outreach Presentation

"The Origin of Structure," January 18, 2003, Mesa Geology & Astronomy Club

"Twenty-First Century Astronomy," November 22, 2002, ASU Astronomy Open House

"The Origin of Structure," November 18, 2002, Desert Mountain, ASU President's Community Outreach Presentation

"The Origin of Structure," October 11, 2002, Tempe Mensa forum

"The Crab Nebula: The Movie," September 19, 2002, NASA Space Science Update – NASA TV press conference announcing results of Chandra/HST monitoring of the Crab Nebula

"The Origin of Structure," July 6, 2002, Featured speaker, Mensa National Annual Gathering

"The Origin of Structure," March 19, 2002, Journeys of the Mind, ASU President's Community Outreach Presentation

"The Origin of Structure," January 14, 2002, Journeys of the Mind, ASU President's Community Outreach Presentation

"Twenty-First Century Astronomy," October 25, 2001, ASU East community, President's Community Outreach presentation.

"The Stories of 21st Century Astronomy," August 21, 2001, Scottsdale, Presentation to WW Norton travelers conference

"Twenty-First Century Astronomy," August 1, 2001, Arizona Science Center Public Night presentation.

"Origins: A Universe of Process and Change," May 26 and 27, 2001, Keynote presentations for Port Angeles, Washington cultural fair.

"Origins: A Universe of Process and Change," March 5, 2001, Superstition Springs, President's Community Outreach presentation.

"The Stories of 21st Century Astronomy," January 13, 2001, Mensa Regional Meeting, Scottsdale, AZ.

Series of talks for Gilbert high school students, December 1, 2000.

"Origins: A Universe of Process and Change," August 5, 2000 – Keynote speaker, Davis CA

Keynote Speaker – Colorado Astronomy Day, Denver Science Center, June 3, 2000.

"Looking Out and Finding Ourselves," April 10, 2000 – Goddard Space Flight Center, Keynote presentation at First Day of Issue ceremony for Hubble Commemorative Stamp series on the 10th anniversary of the launch of HST.

"Our Place in the Universe," UTEP, presentation to undergraduates, April 18, 2000.

"Looking Out and Finding Ourselves," Scottsdale Kiwanis Club, Scottsdale, AZ February 16, 2000.

"The Physical Universe," ASU SPS Zone meeting, November 13, 1999.

Day-long interview with BBC Horizons crew filming "Miracle in Orbit," Pasadena, CA, November 1, 1999.

"Origins: A Universe of Change," ASU Origins Salon Series presentation, Arizona Science Center, October 19, 1999.

"Our Place in the Universe," Featured speaker, Desert Sky Planetarium Conference, Arizona Science Center, October 14, 1999.

"Looking Out and Finding Ourselves," East Valley Astronomy Club, May 12, 1999.

"Searching for Life in the Universe," ASU Journeys of the Mind series, ASU, February 18, 1999.

"Our Connection to the Universe," Sun City West Astronomy Club, February 2, 1999.

"Origins," ASU Salon Series, Scottsdale, January 28, 1999.

"Searching for Life in the Universe," ASU Journeys of the Mind series, ASU, January 19, 1999.

Gilbert Unified School District 6th grade science camp, Payson, April 7, 1998.

"Hubble Space Telescope -- Bringing the Universe Home," Motorola Scientific Awards Banquet, April 4, 1998.

"A Part of the Universe," Tempe Rotary Club, March 24, 1998.

"Floating and Sinking -- A workshop on Hands-on elementary science instruction," Seven workshops conducted for the Gilbert Unified School District between December 1997 and February 1998.

"A Vision for Elementary Science Education," Gilbert Unified School District Summer Science Workshop, Gilbert Arizona, August 4, 1997.

"The Hubble Space Telescope looks at Star Formation," Space Science Seminar Series, University of Michigan, Ann Arbor, Michigan; May 22, 1997.

"Science with the HST," Internet program through the San Francisco Exploratorium, February 12 & 13, 1997.

NASA Space Science Update: "Crab Nebula: The Movie." NASA Select Television press conference presenting HST observations of the Crab Nebula; May 30, 1996.

"Through the Eyes of an Astronomer," Public talk as part of the "Last Lecture" series at Arizona State University, April 11, 1996.

"Hubble Space Telescope: Repairs and Revelations," Presentation to Standford Alumni Organization, February 25, 1996.

"Nebular Microbiology with the Hubble Space Telescope," Sun City West Astronomy Club; February 6, 1996.

"Nebular Microbiology with the Hubble Space Telescope," Phoenix Astronomical Society; February 1, 1996.

"Nebular Microbiology with the Hubble Space Telescope," Saguarro Astronomy Club; January 5, 1996.

NASA Space Astrophysics Update: "Starbirth in the Eagle Nebula." NASA Select Television press conference presenting HST observations of the Eagle Nebula; November 2, 1995. There were numerous press events that came from this release, including numerous national TV and radio interviews.

NASA Space Astrophysics Update: "Stars Under Construction." NASA Select Television press conference presenting HST observations of Herbig-Haro objects; June 1995.

"The Repair of the Hubble Space Telescope," Presented to the Saguarro Astronomy Club; October, 1994.

American Astronomical Society Press conference presenting HST observations of the Crab Nebula; June 1994.

"The Repair of the Hubble Space Telescope," Presented to the Scottsdale Prime-Timers Association; 5 April 1994

American Astronomical Society Press conference presenting early results following the first HST servicing mission; January 1994.

"Repair of the HST," Presented to East Valley Astronomy Club; June 1993

American Astronomical Society Press conference presenting results of HST observations of the Cygnus Loop supernova remnant; January 1993.

"The Hubble Space Telescope: Present and Future," Presented to Scottsdale "Prime-Timers" association; January 1992.

"Imaging with the Hubble Space Telescope," Presented to the Saguarro Astronomy Club; September 1992.

"Imaging with the Hubble Space Telescope," Presented to the Phoenix Astronomical Society; September 1992.

REVIEW PANEL PARTICIPATION

Participation on numerous panels, including a number of chairmanships. Specifics not listed to maintain confidentiality.

GRADUATE STUDENT SUPERVISION

Keely Snider (PhD 2008)
Allison Loll (PhD 2009)
Joe Foy (PhD 2006)
Beatrice Perret
Nicholas Oulette
Aaron Kader (MS 2005)
Kevin Healy (PhD 2004)
Brian Moore (PhD 2001)
Jennifer Neakrase (MS 2000)
Heidi van Tassel (MS 2000)
Ravi Sankrit (PhD 1998)
Dave Marcus (PhD 1997)
Steve Beeson (MS 1996)
Jeri Reed

UNIVERSITY SERVICE

2007-2008 Associate Director for Graduate Studies, School of Earth & Space Exploration
2008 ASU President's Community Enrichment Program
2007-2008 Faculty Advisor, Arizona Outing Club
2006 ASU President's Community Enrichment Program
2006-2008 School of Earth & Space Exploration Graduate Program Committee
2005-2006 Dept. of Physics and Astronomy Personnel Committee
2005-2006 Dept. of Physics and Astronomy Graduate Program Committee
2004-2007 ASU School for Earth & Space Exploration Steering Committee
2004-2006 Faculty advisor, ASU Young Democrats
2003-2004 Chair, Faculty Search Committee
2002-2003 ASU President's Community Enrichment Program
2002-2004 Dept of Physics and Astronomy Budget and Policy Committee
2002-2003 Dept of Physics and Astronomy First Year Graduate Advisor
2002-2003 Dept of Physics and Astronomy Graduate Program Committee
2002-2003 Dept of Physics and Astronomy Colloquium Committee
2001-2002 ASU President's Community Enrichment Program
2001-2002 Dept of Physics and Astronomy Growth and Development Committee
2000-2002 Dept of Physics and Astronomy Space Committee
2000-2002 Dept of Physics and Astronomy Graduate Recruiting Tiger Team
2000-2002 Dept of Physics and Astronomy Budget and Policy Committee
2000-2001 ASU President's Community Enrichment Program
2000 Dept. of Physics and Astronomy Chair Search Committee
1999-2002 Undergraduate Academic Advisor
1998-1999 ASU President's Community Enrichment Program
1999 Dept. of Physics and Astronomy Growth and Development Committee
1998-2000 Dept. of Physics and Astronomy Graduate Exam Committee
1998-2000 Dept. of Physics and Astronomy Personnel Committee
1998-1999 ASU President's Community Enrichment Program

1996 Dept. Committee on Committees
1996 Dept. Colloquium Committee
1996 Dept. 5 year Review Committee
1995-1997 Chair, Dept. of Physics and Astronomy Growth and Development Committee
1995-1997 Dept. of Physics and Astronomy Graduate Exam Committee
1994-1996 Dept. of Physics and Astronomy Budget and Policy Committee
1992-94 Dept. of Physics and Astronomy Personnel Committee
1991-93 Dept. of Physics and Astronomy Graduate Program Committee

Service as Graduate College Representative on multiple PhD Committees
Service on Oral Exam and PhD Committees in Dept. of Physics and Astronomy

COURSES TAUGHT

Spring 2010 – Quest University
Earth, Oceans, and Space
Physics & Astronomy
Spring 2009 – SES 102 (Earth, the Solar System, and the Universe II)
Fall 2008 – SES 101 (Earth, the Solar System, and the Universe I)
Spring 2008 – SES 102 (Earth, the Solar System, and the Universe II)
Fall 2007 – SES 101 (Earth, the Solar System, and the Universe I)
Spring 2007 – SES 102 (Earth, the Solar System, and the Universe II)
Fall 2006 – SES 101 (Earth, the Solar System, and the Universe I)
Spring 2006 – AST 112 (Introduction to Astronomy II)
Fall 2005* – AST 112 (Introduction to Astronomy II)
Spring 2005 – AST 523 (The Physics of the Interstellar Medium)
Spring 2003 through Spring 2004* – AST 111/112 (Introduction to Astronomy I & II)
Summer 2002 – AST 790 (Reading and Conference: Radiation in Astrophysics)
Fall 2002 – AST 523 (The Physics of the Interstellar Medium)
Fall 2002* – AST 111 (Introduction to Astronomy I)
Fall 2001*, Spring 2002* – AST 111/112 (Introduction to Astronomy I and II)
Spring 2001 – AST 598 (The Physics of the Interstellar Medium)
Spring 2001* – AST 112 (Introduction to Astronomy II)
Fall 2000 – AST 790 (Reading and Conference: Comp prep)
Spring 2000* – AST 112 (Introduction to Astronomy II)
Fall 1999* – AST 111 (Introduction to Astronomy I)
Spring 1999 – AST 591 (Astronomy Journal Club)
Spring 1999 – AST 112 (Introduction to Astronomy II)
Fall 1998 – AST 598 (The Physics of the Interstellar Medium)
Fall 1996, Spring 1997 – AST 111/112 (Introduction to Astronomy I and II)
Spring 1996 – AST 322 (Introduction to Astrophysics II)
Summer 1994 – AST 790 (Reading and Conference: Astrophysical plasmas & gas dynamics)
Fall 1993 through Fall 1995 -- AST 111/112 (Introduction to Astronomy I and II)
Fall 1991 through Spring 1993 -- AST 125/126 (Introductory Astronomy Lab I and II)
Fall 1992 through Spring 1993 -- AST 598 (Graduate Journal Club)
* = Supervised Honors College course augmentation

TEACHING AWARDS

Spring 2007 – Finalist, College of Liberal Arts & Sciences Teaching Award
Spring 2004 – Finalist, College of Liberal Arts & Sciences Teaching Award
Fall 2003 – Selected for ASU Last Lecture series
Spring 2003 – Finalist, College of Liberal Arts & Sciences Teaching Award
Spring 2002 – Finalist for Last Lecture series
Spring 2001 – Disabled Student Resources Faculty Award
Spring 1996 – ASU Department of Physics and Astronomy Teaching Award
Spring 1996 – Selected for ASU “Last Lecture” series

Spring 1999 – Finalist, ASU Parent's Association Professor of the Year
Spring 1999 – Manzanita Top Professor Award