

Douglas G. Currie

Curriculum Vitae

University of Maryland

Education

Cornell University	Bachelor of Engineering Physics	1953-1958
University of Rochester	Ph. D. in Theoretical Physics	1958-1962
NSF Pre-Doctoral Scholar	University of Rochester	1959-1962
NSF Post-Doctoral Fellow	Princeton University	1962-1963
NSF Post-Doctoral Fellow	University of Maryland	1963-1964

Employment and Appointments

Assistant Professor	Northeastern University	1964-1967
Assistant Professor	University of Maryland	1967-1970
Associate Professor	University of Maryland	1970-1976
Professor	University of Maryland	1976 - 1998
Professor Emeritus & Senior Research Scientist	University of Maryland	1998 - present
Adaptive Optics Research Scientist	European Southern Observatory	1998 –2000
Consultant		2000-present
Adaptive Optics Program Scientist	UC San Diego	2000
Research Visitor in VLT Analysis	ESO – Santiago Chile	2001
Research Visitor in General Relativity	University of Roma – La Sapienza	2002
Research Visitor in General Relativity	University of Lecce	2002
Research Visitor in Astrophysics (eta CAR)	Archetri Observatory	2002

Membership in Honorary and Professional Societies – Past and Present

American Physical Society
 American Astronomical Society
 Optical Society of America
 Sigma Xi
 American Association of University Professors
 American Association for the Advancement of Science
 American Geophysical Union

National Advisory Committee Memberships

Lunar Ranging Experiment Team NASA
 Ad Hoc Committee on Imaging (Astronomy) with Large Space Telescope
 Ad Hoc Surface Penetrator Science Committee
 Workshop on Detection of Extra-Solar Planet
 NASA/MIT Study on “The terrestrial Environment: Solid Earth and Ocean Physics
 National Research Council - National Academy of Sciences
 Woods Hole Study on “Synthetic Aperture Optics”

International Committees and Societies

Session Chairman of Laser Tracking Instrumentation Workshop, Prague Czechoslovakia
 Session Chairman of Laser Tracking Instrumentation Workshop, Lagonissi, Greece
 IAU symposium #50, Chairman and Chairman of Local Organizing Committee
 International Astronomical Union
 Commission 19 (Rotation of the Earth)
 Commission 51 (Life in the Universe)
 Commission 9 (Astronomical Instrumentation) (Executive Committee)
 Working Group on Refraction in Astrometry and Geodesy
 Working Group on High Resolution Angular Interferometry (Executive Committee)

Honors and Awards

Presentation to the Presidium of the National Academy of Sciences of the Soviet Union
Cites as Distinguished Young Scientist by Maryland's Academy of Science
National Science Foundation Post-Doctoral Fellow
NATA Post-Doctoral Fellow (Not Accepted)
National Science Foundation Pre-Doctoral Fellow
Apollo Achievement Award (NASA)
Group Achievement Award to Lunar Laser Ranging Experiment Team NASA
Group Achievement Award to Hubble Wide Field Camera Instrument Definition Team NASA

Research Activity

Professor Currie has been extensively involved with the development of unique new optical instrumentation and the application of this equipment to both astrophysical observing programs and DoD and Commercial Applications. He was a key member of the Lunar Laser Ranging Team and was Scientific Director of the Lunar Laser Ranging Station at Macdonald Observatory in 1969-1970. He proposed and developed an optical interferometer concept in 1967 at the Air Force Systems Command Summer Study on the Optical Counterpart to Synthetic Aperture Radar. He then implemented this concept and initiated an astronomical observing program for the measurement of stellar diameters on the 100- and the 200-inch telescopes at Mt. Wilson and Palomar Mtn. He also developed a prototype long-baseline optical interferometer in the 1970's. He developed the high precision method of comparing the position of a stellar image in two colors. This "Two-Color Refractometer" was used to determine atmospheric refraction to provide corrections to ground-based astrometric measurements. He also developed a satellite package for space navigation using the two-color technique. He developed instrumentation and techniques to obtain improved accuracy for astronomical position using the T-4 Theodolite and CCDs for the US Geodetic Survey Squadron. He was on the IDT team for the WFPC of the Hubble Space Telescope. He has participated in over 20 papers on the analysis of the IDT team data, as well as observations of eta Carinae and the satellites of the outer planets using the WFPC on the Hubble Space Telescope. He has developed image processing software for the Hubble Space Telescope, for planetary astronomy and for other US Government applications.

More recently, he has been observing and developing image-processing methods and software for Adaptive Optics. This has included observations of the Eagle Nebula (NGC 6611), eta Carinae and other objects. On the analysis side of Adaptive Optics, he has been the principle advisor for two Ph.D. students; P. Avizonis at the University of Maryland in 1997, and E. Diolaiti who has completed his degree at the University of Bologna. He has also advised three master level students in projects in adaptive optics at European Southern Observatory, J. Liwing, K. Naesgarde and B. Svensson in 2000 at ESO.

He is engaged in a joint program to develop the FOGEYE system, a concept to allow pilots to perform safe landings in heavy fog. He is also currently developing CCD cameras for Pressure Sensitive Paints for use in wind tunnels and water tunnels.

Over the past ten year, he has investigated the massive exploding star, eta Carinae. He has observed this object on various telescopes. The astrometric motion of the clumps that compose the homunculus was determined with Dan Dowling, a Ph.D. student at the University of Maryland. Ground-based spectroscopic data was then used to determine the 3D structure of the homunculus. To further investigate the three dimensional structure of the homunculus, and especially the back wall, he received time on the ADONIS AO system using a coronagraph and a Fabry Perot Interferometer. To investigate the motion of the outer debris, he received time on the FORS1 instrument on the VLT. More recently, he is working with K. Weis on spectroscopic data to determine the Doppler velocities of the outer debris and with UVES data to refining the model of the homunculus and refine the velocity structure. This has been combined to determine the 3D structure of the outer debris. He has recently addressed the Malin Spikes of eta Carinae, combined WFPC data and spectroscopic data. Most recently, he has several publications on discoveries made with very high resolution spectra from the UVES Instrument on the European Southern Observatory's Very Large Telescope.

RECENT AND SELECTED EARLIER PUBLICATIONS

2004

Did eta Carinae's Weigelt Blobs originate c.1941?

Dorland, B. N.; **Currie, D. G.**, Hajian, A. *Astronomical Journal* 2004 accepted

LAGEOS II Perigee Rate and Eccentricity Vector Excitation Residual and the Yarkowsky-Scharch Effect

Lucchesi, D. M., Ciufolini, I., Andres, J. I., Pavlis, E. C., Peron, R., Noomen, R. **Currie, D. G.** submitted

HST Astrometric Observations and Orbital Mean Motion Corrections for the Inner Satellites of Neptune

Pascu, D., Rohde, J. R., Seidelmann, P. K., Wells, E. N., Hershey, J. L. Storrs, A. D. Zellner, B. H. Bosh, A. B. **Currie, D. G.** in preparation

The Use of Electrode Dialysis to Prepare Aqueous Bread Extracts for Bromate Determination by Chemiluminescence

Himata, K., Warner, C. R., **Currie, D. G.** in final preparation

The Spin Axis Behavior of the LAGEOS Satellites

Andres, J. I., Noomen, R., Bianco, G., **Currie, D.**, Ostubo, T submitted

2003

The LARES Mission for Testing the Dynamics of General Relativity

Paolozzi, A. **Currie, D. G.** Ciufolini, I. Montana Meeting

The LARES Mission for Testing the Dynamics of General Relativity

Ciufolini, I., **Currie, D.G.** Paolozzi, A. Proceedings of 2003 IEEE Aerospace Conference, Big Sky, Montana, March 8-15, 2003 ISBN 0-7803-7652-8 Catalog number 03TH8652C

Laser Relativity Satellite: A Search for the Dragging of Inertial Frames (the Lense-Thirring Effect);

Smith, B., **Currie, D.**; 2003 Air Force Maui Optical and Supercomputing Site Technical Conference, Wailea HI, 8-12 Sept 2003.

High-Impact Science from Student Satellites: USNA's Contribution to the Laser Relativity Experiment (LARES);

Smith, B., **Currie, D.**; AIAA Space 2003 Conference, Long Beach CA, 23-25 Sept 2003.

Observing and modeling the LAGEOS spin axis behaviour

Andrés, J. I.; Ostubo, T.; Noomen, R.; Bianco, G.; **Currie, D.**

EGS - AGU - EUG Joint Assembly, Abstracts from the meeting held in Nice, France, 6 -11 April 2003, abstract #5951

On the Measurement and Analysis of Rotation and Spin Axis of LAGEOS and LAGEOS II

Currie, D.; Andres, N.; Noomen, R.

EGS - AGU - EUG Joint Assembly, Abstracts from the meeting held in Nice, France, 6 - 11 April 2003, abstract #3155

The "Ghost Shell": Discovery of the Forward Shock from Colliding Winds about Eta Carinae

Dorland, B. N.; **Currie, D. G.**; Kaufer, A.; Bacciotti, F. Winds, Bubbles, and Explosions: a conference to honor John Dyson, Pátzcuaro, Michoacán, México, September 9-13, 2002 (Eds. S. J. Arthur & W. J. Henney) *Revista Mexicana de Astronomía y Astrofísica (Serie de Conferencias)* Vol. 15, pp. 70-70 (2003) (<http://www.astroscu.unam.mx/~rmaa/>)

Eta Carinae: Bullet Streams and Colliding Wind Shocks

Currie, D. G. Winds, Bubbles, and Explosions: a conference to honor John Dyson, Pátzcuaro, Michoacán, México, September 9-13, 2002 (Eds. S. J. Arthur & W. J. Henney) *Revista Mexicana de Astronomía y Astrofísica (Serie de Conferencias)* Vol. 15, pp. 59-61 (2003)
(<http://www.astroscu.unam.mx/~rmaa/>)

2002

Discovery of a high velocity, spatially extended emission "shell" in front of the southeast lobe of the eta Carinae Homunculus

Currie, D. G.; Dorland, B. N.; Kaufer, A. *Astronomy and Astrophysics*, v.389, p.L65-L68 (2002)

Observations of The Dynamical History of The Spin of Lageos and Lageos 2

Currie, D.; Avizonis, P.; Wellnitz, D.; Kissell, K. EGS XXVII General Assembly, Nice, 21-26 April 2002, abstract #6484

Discovery of a high velocity, spatially extended emission "shell" in front of the southeast lobe of the eta Carinae Homunculus **Currie, D. G.;** Dorland, B. N.; Kaufer, A. *Astronomy and Astrophysics*, v.389, p.L65-L68 (07/2002)

2001

Autonomous UV-enhanced-vision system for landing on CAT I runways during CAT IIIa weather conditions

Norris, Victor J.; Currie, Douglas G. *Proc. SPIE Vol. 4363*, p. 9-20, Enhanced and Synthetic Vision 2001, Jacques G. Verly;

XXX Dynamical and Spatial Properties of Eta Carinae's Heavy Metal Filaments: First UVES/VLT Results

Dorland, B. N.; **Currie, D. G.;** Kaufer, A. submitted to *Astronomy and Astrophysics*

2000

Autonomous UV-Enhanced-Vision System for Landing on CAT I Runways during CAT IIIa Weather Conditions Norris, Victor J.; **Currie, Douglas G.** 2000 *A&AS*..147..335D

Analysis of isoplanatic high resolution stellar fields by the StarFinder code

Diolaiti, E.; Bendinelli, O.; Bonaccini, D.; Close, L.; **Currie, D.;** Parmeggiani, G. *Astronomy and Astrophysics Supplement*, v.147, p.335-346 (12/2000)

3D Shape and Structure of the Homunculus of eta Carinae

Currie, D. G.; Christou, J.; Tyler, D.; Jefferies, S.; Le Mignant, D.; AFOSR/MHPCC Workshop on Deconvolution 7 December 2000

3D Shape and Structure of the Homunculus of eta Carinae

Currie, D. G.; Christou, J.; Tyler, D.; Jefferies, S.; Le Mignant, D.; Bonaccini, D. *American Astronomical Society Meeting 197*, #91.07

3D Structure and dynamics of the Homunculus of eta Carinae: an Application of the Fabry-Perot, ADONIS, and AO Software, II. Spikes and Bullets

Currie, D. D. Le Mignant, B. Svensson, S. Tordo, D. Bonaccini *The ESO Messenger* No. 102 p. 17-19

Analysis of isoplanatic high resolution stellar fields by the StarFinder code

Diolaiti, E.; Bendinelli, O.; Bonaccini, D.; Close, L.; **Currie, D.;** Parmeggiani, G. *Astronomy and Astrophysics Supplement*, v.147, p.335-346 (*A&AS* Homepage)

STARFINDER: an IDL GUI based code to analyze crowded fields with isoplanatic correcting PSF

fitting.

E. Diolaiti, O. Bendinelli, D. Bonaccini **D. Currie**, L. Close, and G. Parmeggiani
Proc. SPIE Vol. 4007, p. 879-888, Adaptive Optical Systems Technology, Peter L. Wizinowich; Ed. (SPIE Homepage) Munich, AS05

ESO Photometric and Astrometric Analysis Program for AO: A Programmatic and Numerical Analysis

Currie, D., D. Bonaccini, E. Diolaiti, S. Tordo, K. Naesgarde, J. Liwing, O. Bendinelli, G. Parmeggiani, L. Close #4007-73 - Proc. SPIE Vol. 4007, p. 827-8833, Adaptive Optical Systems Technology, Peter L. Wizinowich; Ed. (SPIE Homepage), March 2000 - Munich, AS05 Abstract (07/2000)

Hyper-Velocity Jets and Homuncular Motion in eta Carinae: an Application of the Fabry-Perot, ADONIS and AO Software

Currie, D., D. Le Mignant, B. Svensson, E. Diolaiti, S. Tordo, K. Naesgarde, J. Liwing, O. Bendinelli, G. Parmeggiani, D. Bonaccini SPIE Vol. 4007 Proc. SPIE Vol. 4007, p. 827-838, Adaptive Optical Systems Technology, Peter L. Wizinowich; Ed. (SPIE Homepage) March 2000 - Munich, AS05

3D Structure and dynamics of the Homunculus of eta Carinae: an Application of the Fabry-Perot, ADONIS, and AO Software

Currie, D., D. Le Mignant, B. Svensson, S. Tordo, D. Bonaccini The Messenger No. 101 p. 24-27

STARFINDER: a Code to Analyze Isoplanatic High-resolution Stellar Fields

Diolaiti, E.; O. Bendinelli, D. Bonaccini, L. Close, **D. Currie**, G. Parmeggiani The ESO Messenger No 100 p23-27

ESO Photometric and Astrometric Analysis Program for Adaptive Optics” ADASS- IX

Currie, D. G.; E. Diolaiti; S. Tordo; K. Naesgarde; J. Liwing; O. Bendinelli; G. Parmeggiani; L. Close; D. Bonaccini. Astronomical Data Analysis Software and Systems IX, ASP Conference Proceedings, Vol. 216, edited by Nadine Manset, Christian Veillet, and Dennis Crabtree. Astronomical Society of the Pacific, ISBN 1-58381-047-1, 2000, p. 623.

STARFINDER: an algorithm for crowded stellar field analysis

E. Diolaiti, , O. Bendinelli, **D. Currie**, L. Close, D. Bonaccini, G. Astronomical Data Analysis Software and Systems IX, ASP Conference Proceedings, Vol. 216, edited by Nadine Manset, Christian Veillet, and Dennis Crabtree. Astronomical Society of the Pacific, ISBN 1-58381-047-1, 2000, p. 381. 3-6 October 1999

ESO Photometric and Astrometric Analysis Programme for Adaptive Optics

Currie, D. G., D. Bonaccini, E. Diolaiti, S. Tordo, K. Naesgarde, J. Liwing, O. Bendinelli, G. Parmeggiani, L. Close, The ESO Messenger #100, p. 12-23 (06/2000)

1999

An Episodic Reddening of Triton

Pascu, D.; Rohde, J. R.; Seidelmann, P. K.; Wells, E. N.; Hershey, J. L.; Zellner, B. H.; Storrs, A. D.; **Currie, D. G.**; Bosh, A. S. American Astronomical Society, DPS meeting #31, #13.04 100

Astrometry and Orbits of the Inner Satellites of Neptune

Pascu, D.; Rohde, J. R.; Seidelmann, P. K.; Wells, E. N.; Hershey, J. L.; Zellner, B. H.; Storrs, A. D.; **Currie, D. G.**; Bosh, A. S. 09/1999 American Astronomical Society, DDA meeting #31, #10.03

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. "Eta Carinae At The Millennium, ASP Conference Series #179, ed. Jon A. Morse, Roberta M. Humphreys, and Augusto Daminieli. Astronomical Society of the Pacific (San Francisco), ISBN 1-58381-003-X (1999)., p.134 .

Astrometric Motion and Doppler Velocity

Currie, D. G. and Dowling, D. M. 1999 Eta Carinae At The Millennium, ASP Conference Series #179, ed. Jon A. Morse, Roberta M. Humphreys, and Augusto Daminieli. Astronomical Society of the Pacific (San Francisco), ISBN 1-58381-003-X (1999)., p.134

1998

Modeling Observed Errors in Adaptive Optics Systems

Currie, D. G. P. Avizonis Jr. K. Kissell, D. Bonaccini, Proc. SPIE Vol. 3353, p. 1049-1057, Adaptive Optical System Technologies, Domenico Bonaccini; Robert K. Tyson; Eds. (SPIE Homepage) (09/1998)

HST BVI Photometry of Triton and Proteus

Pascu, D.; Rohde, J. R.; Seidelmann, P. K.; Wells, E. N.; Hershey, J. L.; Zellner, B. H.; Storrs, A. D.; **Currie, D. G.** Bosh, A. S. American Astronomical Society, DPS meeting #30, #44.P10

HST Observations of the Inner Satellites of Neptune

Pascu, D.; Rohde, J. R.; Seidelmann, P. K.; Wells, E. N.; Hershey, J. L.; Zellner, B. H.; Storrs, A. D.; **Currie, D. G.**; Bosh, Amanda 09/1998 1998AJ....115.1190P

Hubble Space Telescope Astrometric Observations and Orbital Mean Motion Corrections for the Inner Uranian Satellites

Pascu, Dan; Rohde, James R.; Seidelmann, P. Kenneth; Wells, Eddie N.; Kowal, Charles T.; Zellner, Ben H.; Storrs, Alex D.; **Currie, Douglas G.**; Dowling, Daniel M. 03/1998 The Astronomical Journal, Volume 115, Issue 3, pp. 1190-1194. (AJ Homepage)

The ASCA X-Ray Spectrum of eta Carinae

Corcoran, M. F.; Petre, R.; Swank, J. H.; Drake, S. A.; Koyama, K.; Tsuboi, Y.; Viotti, R.; Damineli, A.; Davidson, K.; Ishibashi, K.; White, S.; **Currie, D.** Rev. Mex. Astron. Astrofis. Serie de Conf., 7, 217-217 (02/1998)

HST parallel WFPC2 imagery of the Carina Nebula : eggs (?) and proplyds (?) in dark cloud rims and Bok globules.

Dufour, R. J.; van Orsow, D.; Walter, D. K.; Hester, J. J.; **Currie, D. G.** 00/1998 Rev. Mex. Astron. Astrofis. Serie de Conf., 7, 217-217 (1998)

HST FOS spectroscopy of eta Carinae's northeast jet.

Glover, T. W.; Dufour, R. J.; Hester, J. J.; **Currie, D. G.**; van Orsow, D.; Walter, D. K. 00/1998 Rev. Mex. Astron. Astrofis. Serie de Conf., 7, 158-162 (1998)

1997

Star Formation in M16 with ADONIS and Hubble

Currie, D.; Bonaccini, D.; Kissell, K.; Shaya, E.; Avizonis, P.; Dowling, D. Star Formation Near and Far : Seventh Astrophysics Conference. Edited by Steven S. Holt and Lee G. Mundy. Woodbury N. Y. : AIP Press, 1997. Also AIP Conference Series, v.393., p.201 (00/1997)

Star Formation in NGC 6611 with ADONIS and the Hubble Space Telescope

Currie, D., K. Kissell, , E. Shaya, P. Avizonis, D. Douline, D. Bonaccini ESO Messenger No. 84 p. 31 1996 (00/1997) ###

Astrometry of Faint Planetary Satellites with WFPC2 of Hubble Space Telescope

Pascu, D.; Rhode, J. R.; Seidelmann, P. K.; Wells, E. N.; Kowal, C. T.; Zellner, B. H.; Storrs, A.; **Currie, D. G.**; Dowling, D. M. 00/1997 Dynamics and astrometry of natural and artificial celestial bodies : proceedings of IAU Colloquium 165, Poznan, Poland, July 1-5, 1996 /edited by I.M. Wytrzyszczak, J.H. Lieske, R.A. Feldman. Dordrecht ; Boston : Kluwer Academic Publishers, c1997. QB1 .I56 no.165, p. 517. (00/1997)

On the Dynamics of the LAGEOS Spin Vector High-Precision and Comparisons to Theoretical Modeling

Currie, D.; Kissell, K.; Avizonis, P.; Wellnitz, D. 00/1997 1996DPS....28.0410S Dynamics and astrometry of natural and artificial celestial bodies : proceedings of IAU Colloquium 165, Poznan, Poland, July 1-5, 1996 /edited by I.M. Wytrzyszczak, J.H. Lieske, R.A. Feldman. Dordrecht ; Boston : Kluwer Academic Publishers, c1997. p. 341. (00/1997)

1996

Spectrophotometry of Small Uranian Satellites

Storrs, A. D.; Zellner, B.; Wells, E. N.; Buratti, B.; **Currie, D.**; Seidelmann, K.; Pascu, D. American Astronomical Society, DPS meeting #28, (09/1996)

Astrometric Analysis of the Homunculus of eta Carinae with the Hubble Space Telescope

Currie D. G.; D. M. Dowling, Daniel M.; Shaya, Edward J.; Hester, Jeff; Scowen, Paul; Groth, Edward J.; Lynds, Roger; O'neil, Earl J., Jr.; Wide Field/Planetary Camera Instrument Definition Team Astronomical Journal v.112, p.1115 (AJ Homepage) (09/1996)

Hubble Space Telescope WFPC2 Imaging of M16: Photoevaporation and Emerging Young Stellar Objects

Hester, J. J.; Scowen, P. A.; Sankrit, R.; Lauer, T. R.; Ajhar, E. A.; Baum, W. A.; Code, A.; **Currie, D. G.;** Danielson, G. E.; Ewald, S. P.; Faber, S. M.; Grillmair, C. J.; Groth, E. J.; Holtzman, J. A.; Hunter, D. A.; Kristian, J.; Light, R. M.; Lynds, C. R.; Monet, D. G.; O'Neil, E. J., Jr.; Shaya, E. J.; Seidelmann, K. P.; Westphal, J. A. Astronomical Journal v.111, p.2349 (AJ Homepage) 06/1996

Hubble Space Telescope Planetary Camera Images of NGC 1316 (Fornax A)

Shaya, E. J.; Dowling, D. M.; **Currie, D. G.;** Faber, S. M.; Ajhar, E. A.; Lauer, T. R.; Groth, E. J.; Grillmair, C. J.; Lynd, R.; O'Neil, E. J., Jr. Astronomical Journal v.111, p.2212 (AJ Homepage) 06/1996

A New 3-D Model for the Homunculus of eta Carinae

Dowling, D.; **Currie, D.;** Shaya, D.; Hester, J.; Scowen, P.; The Wf/Pc Idt 05/1996 American Astronomical Society Meeting, 188, #40.03 05/1996

Young Stars in the Cr232 Region of the Carina Nebula

Vanorsow, D.; Dufour, R. J.; **Currie, D. G.;** Hester, J. J.; Walter, D. K. American Astronomical Society Meeting, 188, #40.03 05/1996

Star formation in NGC 6611 with ADONIS and Hubble.

Currie, D.; Kissell, K.; Shaya, E.; Avizonis, P.; Dowling, D.; Bonaccini, D. The Messenger, 86, 31-36 (1996) 00/1996

Approaches for image processing in supporting adaptive optics

Currie, D. G.; Avizonis, P. V.; Dowling, D. M.; Kissel, K. E.; O'Leary, D. P.; Nagy, J. G.; Fugate, R. Q. Adaptive Optics. ESO Conference and Workshop Proceedings, Proceedings of a topical meeting, held October 2-6, 1995, Garching, Germany, Garching near Munich: European Southern Observatory, |c1996, edited by Martin Cullum, p.299 00/1996

1995

HST Parallel WFPC2 Imagery of a Region in the Carina Nebula

Dufour, R. J.; Vanorsow, D.; Walter, D. K.; Hester, J. J.; **Currie, D. G.** 12/1995 American Astronomical Society Meeting, 187, #108.07

3D Structure of the Bipolar Dust Shell of eta Carinae

Currie, D. G.; D. M. Dowling; E. Shaya; J. J. Hester; HST WFPC IDT and HST WFPC2 IDT (1996) "Role of Dust in the Formation of Stars, Garching bei Muenchen, Federal Republic of Germany, 11-14 September 1995 Proceedings of the ESO Workshop, Kaufl, H. U. and Siebenmorgen, R. (Ed.) Springer-Verlag, 89-94 (09/1995) ###

HST FOS Spectroscopy of Ejecta From Eta Carinae

Glover, T. W.; Dufour, R. J.; Hester, J. J.; **Currie, D. G.;** Vanorsow, D.; Walter, D. K. American Astronomical Society Meeting, 187, #44.04 12/1995

HST photometry of the Uranian inner satellite system

Pascu, D.; Rohde, J. R.; Siedelmann, P. K.; Wells, E.; Kowal, C.; Storrs, A.; Zellner, B.; **Currie, D. G.;** Dowling, D. M. Bull. Am. Astron. Soc., vol. 27, p. 1169-1170 (1995). 06/1995

HST Astrometry of the Uranian Inner Satellite System

Pascu, D.; Rohde, J. R.; Seidelmann, P. K.; **Currie, D. G.**; Dowling, D. M.; Wells, E.; Kowal, C.; Zellner, B.; Storrs, American Astronomical Society Meeting, 186, #13.02 05/1995

1994

HST Astrometric Motions of eta Carinae from WF2,WF1,PC1

Dowling, D. M.; **Currie, D. G.**; Shaya, E. J.; Hester, J.; Groth, E. American Astronomical Society Meeting, 185, #83.11 12/1994

HST Images of the Planet Uranus: Satellites and Ring System

Currie, D.; Dowling, D.; Seidelmann, K.; Pascu, D.; Rohde, J.; Wells, E.; Storrs, A.; Zellner, B. American Astronomical Society Meeting, 185, #43.14 12/1994

Recovery of inner satellites of Uranus

Zellner, B.; Seidelmann, P. K.; Pascu, D.; Kowal, C.; Wells, E.; **Currie, D.** Bull. Am. Astron. Soc., vol. 26, p. 1163-1163 (1994). 06/1994

Hubble Space Telescope Planetary Camera observations of ARP 220

Shaya, Edward J.; Dowling, Daniel M.; **Currie, Douglas G.**; Faber, S. M.; Groth, Edward J. The Astronomical Journal, vol. 107, no. 5, p. 1675-1685 (AJ Homepage) 05/1994

HST WFPC-2 Observations of the Inner Synchrotron Component of the Crab Nebula

Scowen, P. A.; Hester, J. J.; Gallagher, J.; Lynds, R.; O'Neil, E. J., Jr.; **Currie, D. G.**; Idt, Wf/Pc; Idt, Wfpc-2. American Astronomical Society Meeting, 184, #56.07 05/1994

Hubble Astrometry and the 3D Structure of eta Carinae

Currie, D. G.; Dowling, D. J.; Avizonis, P. V.; Hester, J. J.; Scowen, P. A.; Groth, E. J.; Idt, Wf/Pc; Idt, Wfpc-2. American Astronomical Society Meeting, 184, #34.04 05/1994

1993

Planetary camera observations of the double nucleus of M31

Lauer, T. R.; Faber, S. M.; Groth, E. J.; Shaya, E. J.; Campbell, B.; Code, A.; **Currie, D. G.**; Baum, W. A.; Ewald, S. P.; Hester, J. J.; Holtzman, J. A.; Kristian, J.; Light, R. M.; Ligynds, C. R.; O'Neil, E. J., Jr.; Westphal, J. A. Astronomical Journal (ISSN 0004-6256), vol. 106, no. 4, p. 1436-1447, 1710-1712. (AJ Homepage) 10/1993

Imaging of the gravitational lens system PG 1115+080 with the Hubble Space Telescope

Kristian, J.; Groth, E. J.; Shaya, E. J.; Schneider, D. P.; Holtzman, J. A.; Baum, W. A.; Campbell, B.; Code, A.; **Currie, D. G.**; Danielson, G. E.; Ewald, S. P.; Hester, J. J.; Light, R. M.; Lynds, C. R.; O'Neil, E. J., Jr.; Seidelmann, P. K.; Westphal, J. A. Astronomical Journal (ISSN 0004-6256), vol. 106, no. 4, p. 1330-1336, 1698-1700. (AJ Homepage) 10/1993

1992

Planetary camera observations of the central parsec of M32

Lauer, Tod R.; Faber, S. M.; **Currie, Douglas G.**; Ewald, S. P.; Groth, Edward J.; Hester, J. Jeff; Holtzman, Jon A.; Light, Robert M.; O'Neil, Earl J., Jr.; Shaya, Edward J.; Westphal, James A. Astronomical Journal (ISSN 0004-6256), vol. 104, no. 2, Aug. 1992, p. 552-562. (AJ Homepage) 08/1992

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