

RUSSELL J. LAVERY: VITA

Born November 15, 1955, Hartford, Connecticut, U.S.A.

Degrees:

Ph.D., 1988, Astronomy, University of Hawaii/Manoa
M.S., 1983, Astronomy, University of Hawaii/Manoa
B.S., 1977, Astronomy, University of Massachusetts/Amherst

Professional Associations:

American Astronomical Society

Appointments:

Visiting Assistant Professor, Department of Physics and Astronomy, Northern Arizona University, 2001-
Assistant Professor, Department of Physics and Astronomy, Iowa State University, 1993-2001
Postdoctoral Research Fellow, Department of Terrestrial Magnetism, Carnegie Institution of Washington, 1991-1993
Australian Time Assignment Committee, Anglo-Australian Telescope, 1990-1991
Postdoctoral Research Fellow, Mount Stromlo and Siding Spring Observatories, 1988-1991

Honors:

Achievement Rewards for College Scientists, Honolulu Chapter, 1984-1986

General Fields of Investigation:

Observational studies of clusters of galaxies, interacting galaxies, galaxy evolution, high-resolution imaging, gravitational lenses.

Russell J. Lavery

Refereed Publications:

1. J. P. Henry, J. T. Clarke, S. Bowyer, and R. J. Lavery, "X-Ray, Optical, and Radio Observations of the Blue Galaxy Butcher-Oemler 6 in the 3C295 Cluster," *Astrophys. J.*, 272:434-438 (1983).
2. J. P. Henry, and R. J. Lavery, "The X-Ray Luminosity Function of Abell Clusters at a Redshift of 0.25," *Astrophys. J.*, 280:1-6 (1984).
3. J. P. Henry, J. T. Clarke, S. Bowyer, and R. J. Lavery, "Characterization of X-Ray Sources Detected in a Deep Einstein Exposure of the Field Around 3C295," *Astron. J.*, 90:1425-1430 (1985).
4. M. J. Pierce, and R. J. Lavery, "High Resolution Imaging From Mauna Kea: The Astrometric Binary Mu Cassiopeiae," *Astron. J.*, 90:647-651 (1985).
5. R. J. Lavery, and J. P. Henry, "Spectroscopy of Three Butcher-Oemler Clusters of Galaxies at a Redshift of 0.2," *Astrophys. J. Lett.*, 304:L5-L9 (1986).
6. A. M. Boesgaard, and R. J. Lavery, "Abundances in Beryllium-Deficient F Stars," *Astrophys. J.*, 309:762-770 (1986).
7. M. M. Phillips, et al. (including R. J. Lavery), "The Type Ia Supernova 1986g in NGC 5128: Optical Photometry and Spectra," *Pub. A.S.P.*, 99:592-605 (1987).
8. J. P. Henry, and R. J. Lavery, "Multiaperture Spectroscopy of Galaxies in Abell 370," *Astrophys. J.*, 323:473-479 (1987).
9. R. J. Lavery, and J. P. Henry, "Two Blue Arcs Associated with the cD Galaxy in Abell 963," *Astrophys. J. Lett.*, 329:L21-L24 (1988).
10. R. J. Lavery, and J. P. Henry, "Evidence for Galaxy-Galaxy Interactions as an Active Agent of the 'Butcher-Oemler' Effect at a Redshift of 0.2," *Astrophys. J.*, 330:596-608 (1988).
11. R. J. Lavery, "Supernova 1989B in NGC 3627," *IAU Circular* No. 4743 (1989).
12. R. J. Lavery, "Local Group Dwarf Galaxy in Tucana," *IAU Circular* No. 5139 (1990).
13. R. J. Lavery, and K. J. Mighell, "A New Member of the Local Group: The Tucana Dwarf Galaxy," *Astron. J.*, 103:81-83 (1992).
14. R. J. Lavery, M. J. Pierce, and R. D. McClure, "High Resolution Imaging of Distant Clusters of Galaxies: I. Close Pairs, Interactions and the 'Butcher-Oemler' Effect at $Z = 0.4$," *Astron. J.*, 104:2067-2071 (1992).
15. R. J. Lavery, M. J. Pierce, and R. D. McClure, "Observations of a High Surface Brightness Arclet in the Cluster of Galaxies GH0 2154+0508," *Astrophys. J.*, 418:43-48 (1993).

Russell J. Lavery

Refereed Publications:

16. R. J. Lavery, and J. P. Henry, "Imaging of 'Butcher-Oemler' Blue Galaxies at a Redshift of 0.2," *Astrophys. J.*, 426:524-534 (1994).
17. R. J. Lavery, P. Seitzer, N. B. Suntzeff, A. R. Walker and G. S. Da Costa, "Distant Ring Galaxies as Evidence for a Steeply Increasing Galaxy Interaction Rate with Redshift," *Astrophys. J. Lett.*, 467:L1-L4 (1996).
18. R. J. Lavery, "An Extremely Thin Gravitational Arc Formed by the Distant Cluster CL 0016+1609: Lensing of a Compact HDF-Type Object?" *Astron. J.*, 112:1812-1815 (1996).
19. Q. D. Wang, M. Ulmer, and R. J. Lavery, "Butcher & Oemler Cluster A2111: A Head-on Merger at $z = 0.23$," *MNRAS*, 288:702-714 (1997).
20. R. J. Lavery, A. Remijan, V. Charmandaris, R. D. Hayes, and A. A. Ring, "Probing the Evolution of the Galaxy Interaction/Merger Rate Using Collisional Ring Galaxies," *Astrophys. J.*, submitted.
21. P. Seitzer, R. J. Lavery, N. B. Suntzeff, A. R. Walker and G. S. Da Costa, "HST Imaging of the Local Group Galaxy Tucana," in preparation.
22. R. J. Lavery, and J. P. Henry, "Spectroscopy and Velocity Dispersion Measurement of the Rich Cluster of Galaxies Abell 963," in preparation.

Russell J. Lavery

Contributed Papers:

1. "Multiaperture Spectroscopy of Clusters of Galaxies at a Redshift of 0.2." R. J. Lavery and J. P. Henry. Presented at the 167th Meeting of the American Astronomical Society, January 1986, Houston, Texas. *BAAS*, 17, 858, 1985.
2. "The 'Butcher-Oemler' Effect in Three Clusters of Galaxies at a Redshift of 0.2." R. J. Lavery. Thesis presentation at the 172nd Meeting of the American Astronomical Society, June 1988, Kansas City, Missouri. *BAAS*, 20, 686, 1988.
3. "Observations of the Blue Arcs in Abell 963." R. J. Lavery. Presented at the Conference, "Gravitational Lenses", June 1988, Cambridge, Massachusetts. *Gravitational Lenses*, ed. J. M. Moran, J. N. Hewitt, & K. Y. Lo (New York: Springer-Verlag), pp. 134-139, 1989.
4. "Some Insight on 'Post-Starburst Galaxies'." R. J. Lavery. Presented at the 173rd Meeting of the American Astronomical Society, January 1989, Boston, Massachusetts. *BAAS*, 20, 1087, 1988.
5. "Interactions in 'Butcher-Oemler' Clusters of Galaxies." R. J. Lavery. Presented at the Conference, "Dynamics and Interactions of Galaxies", May-June 1989, Heidelberg, Germany. *Dynamics and Interactions of Galaxies*, ed. R. Weilen (New York: Springer-Verlag), pp. 30-33, 1990.
6. "Gravitational Lensing by Clusters of Galaxies." R. J. Lavery. Presented at the 28th Anglo-Australian Observatory Symposium, March 1990, Canberra, Australia.
7. "Slitless Spectroscopy of Planetary Nebulae in NGC 3377." R. J. Lavery, M. J. Pierce, and G. J. Hill. Presented at the 177th Meeting of the American Astronomical Society, January 1991, Philadelphia, Pennsylvania. *BAAS*, 22, 1249, 1990.
8. "The Tucana Dwarf Galaxy." Presented at the Anglo-Australian Observatory Conference, "The Australian Perspective on Dwarf Galaxies", April 1991, Sydney, Australia. *PASAu*, 10, 84, 1992.
9. "Imaging of Blue Galaxies in Clusters at $z = 0.4$." R. J. Lavery. Presented at the 103rd Annual Meeting of the Astronomical Society of the Pacific, "Scientific Results From High-Angular Resolution Studies in Astronomy", June 1991, Laramie, Wyoming.
10. "Morphology of the Blue 'Butcher-Oemler' Galaxies in Clusters with Redshifts 0.4 to 0.5." R. J. Lavery. Presented at the NATO Advanced Study Institute, "Clusters and Superclusters of Galaxies", July 1991, Cambridge, UK.
11. "Observations of a High Surface Brightness Arclet in the Cluster of Galaxies GHO 2154 + 0508." R. J. Lavery, M. J. Pierce, R. McClure, D. Fullagar, and K. Sebo. Presented at the 179th Meeting of the American Astronomical Society, January 1992, Atlanta, Georgia. *BAAS*, 23, 1336, 1991.
12. "A New Member of the Local Group: The Tucana Dwarf Elliptical Galaxy." K. J. Mighell and R. J. Lavery. Presented at the 179th Meeting of the American Astronomical Society, January 1992, Atlanta, Georgia. *BAAS*, 23, 1445, 1991.

Russell J. Lavery

Contributed Papers:

13. "High-Resolution Imaging of Three Distant Rich Clusters of Galaxies." R. J. Lavery, M. J. Pierce, and R. McClure. Presented at the 181th Meeting of the American Astronomical Society, January 1993, Phoenix, Arizona. *BAAS*, 24, 1192, 1992.
14. "Evidence for Mergers in a Cluster at High Z." R. D. McClure, M. J. Pierce, and R. J. Lavery. Presented at the 182nd Meeting of the American Astronomical Society, June 1993, Berkeley, California. *BAAS*, 25, 838, 1993.
15. "Radio and Optical Observations of 4C 39.29: A Radio Galaxy Behind Abell 963." R. J. Lavery, F. N. Owen, and J. P. Henry. Presented at the 183rd Meeting of the American Astronomical Society, January 1994, Washington, DC. *BAAS*, 25, 1307, 1993.
16. "Interactions and the Blue Galaxies in Distant Clusters." R. J. Lavery. Presented at the XIVth Moriond Astrophysics Meeting, "Clusters of Galaxies", March 1994, Meribel, France. *Clusters of Galaxies*, ed. F. Durret, A. Mazure, & J. Tran Thanh Van (Singapore: Editions Frontieres) pp. 117-120, 1994.
17. "The Star-Forming Galaxies in Distant Clusters." R. J. Lavery. Invited contribution at the Space Telescope Science Institute Workshop, "Quantifying Galaxy Morphology at High Redshift", May 1994, Baltimore, Maryland.
18. "The Velocity Dispersion and Dispersion Profile of Abell 963." R. J. Lavery and J. P. Henry. Presented at "IAU Symp. 173: Astrophysical Applications of Gravitational Lensing", July 1995, Melbourne, Australia. *Proceedings of IAU Symp. 173: Astrophysical Applications of Gravitational Lensing*, ed. C. S. Kochanek & J. N. Hewitt (Boston: Kluwer Academic) pp. 163-164, 1996.
19. "HST/WFPC2 Imaging of the Tucana Dwarf Galaxy." R. J. Lavery, P. Seitzer, A. Walker, N. Suntzeff, and G. S. Da Costa. Presented at "From Stars to Galaxies -- The Impact of Stellar Physics on Galaxy Evolution", October 1995, Crete, Greece. *From Stars to Galaxies: The Impact of Stellar Physics on Galaxy Evolution*, ed. C. Leitherer, U. Fritze-von Alvensleben, & J. Huchra, ASP Conf. Series Vol. 98 (San Francisco: ASP) pp. 333-334, 1996.
20. "Distant Ring Galaxies as Evidence for a Steeply Increasing Galaxy Interaction Rate with Redshift." R. J. Lavery, P. Seitzer, A. R. Walker, N. B. Suntzeff, and G. S. Da Costa. Presented at the 187rd Meeting of the American Astronomical Society, January 1996, San Antonio, Texas. *BAAS*, 27, 1373, 1995.
21. "The Tucana Dwarf Galaxy: HST/WFPC2 Imaging of this Isolated Local Group Dwarf Spheroidal." R. J. Lavery, P. Seitzer, A. Walker, N. Suntzeff, and G. S. Da Costa. Presented at the 188th Meeting of the American Astronomical Society, June 1996, Madison, Wisconsin. *BAAS*, 28, 836, 1996.
22. "Gravitational Lensing by Galaxies and Groups in Rich Clusters." R. J. Lavery. Presented at the Seventh Annual Iowa Space Grant Consortium Conference, Drake University, Des Moines, Iowa, October 24, 1997.

Russell J. Lavery

Contributed Papers:

23. "The Velocity Dispersion and X-Ray Structure of Abell 963." R. J. Lavery and J. P. Henry. Presented at the 192nd Meeting of the American Astronomical Society, June 1998, San Diego, California. *BAAS*, 30, 864, 1998.
24. "Distant Ring Galaxies and the Galaxy Interaction Rate at High Redshift." M. D. Reed, R. J. Lavery, and A. J. Remijan. Presented at the 192nd Meeting of the American Astronomical Society, June 1998, San Diego, California. *BAAS*, 30, 889, 1998.
25. "Distant Ring Galaxies and the Galaxy Interaction Rate at High Redshift - II." A. J. Remijan, R. J. Lavery, and M. D. Reed. Presented at the 193rd Meeting of the American Astronomical Society, January 1999, Austin, Texas. *BAAS*, 30, 1247, 1998.
26. "Allied Pairs of Gravitationally Lensed Images Associated with Distant Clusters of Galaxies." R. J. Lavery. Presented at the 193rd Meeting of the American Astronomical Society, January 1999, Austin, Texas. *BAAS*, 30, 1416, 1998.
27. "Probing the Evolution of the Galaxy Interaction/Merger Rate Using Distant Collisional Ring Galaxies." R. J. Lavery, and A. Remijan. Presented at "XVth IAP Meeting Dynamics of Galaxies: From the Early Universe to the Present". July 1999, Paris, France. *Dynamics of Galaxies: From the Early Universe to the Present*, ed. F. Combes, G. A. Mamon, & V. Charmandaris, ASP Conf. Series Vol. 197 (San Francisco: ASP) pp. 327-330, 2000.

Russell J. Lavery

Invited Talks:

1. "'Butcher-Oemler' Effect for Clusters with Redshifts $Z = 0.2$ ", Mount Stromlo Observatory, Canberra, Australia, November 10, 1988.
2. "Present Status of the 'Butcher-Oemler' Effect", Astronomy Department, University of Washington, Seattle, Washington, May 16, 1989.
3. "The Origin of the 'Butcher-Oemler' Effect at Redshifts Near 0.2", Observatoire de Paris-Meudon, Universite de Paris, Paris, France, June 26, 1989.
4. "Interactions in 'Butcher-Oemler' Clusters of Galaxies", Anglo-Australian Observatory, Sydney, Australia, March 13, 1990.
5. "The 'Butcher-Oemler' Effect in Distant Clusters of Galaxies", Department of Terrestrial Magnetism, Carnegie Institution of Washington, Washington, D. C., January 15, 1992.
6. "Interactions and the 'Butcher-Oemler' Effect in Distant Clusters of Galaxies", Institute for Astronomy, University of Hawaii, Honolulu, Hawaii, May 7, 1992.
7. "Morphology of the Blue Galaxy Population in Distant Clusters of Galaxies", Mount Stromlo Observatory, Canberra, Australia, June 23, 1992.
8. "Gravitational Lensing by Clusters of Galaxies", Department of Terrestrial Magnetism, Carnegie Institution of Washington, Washington, D. C., November 4, 1992.
9. "High Resolution Imaging of Large Redshift Clusters", Washington Area Astronomers Meeting, Washington, D. C., November 5, 1992.
10. "Morphology of Distant Cluster Blue Galaxies Revealed by HRCam", Departement de Physique, Universite de Montreal, Montreal, Canada, November 19, 1992.
11. "Gravitational Lensing by Clusters of Galaxies", Departement de Physique, Universite de Montreal, Montreal, Canada, November 20, 1992.
12. "Interactions and the 'Butcher-Oemler' Effect in Distant Clusters of Galaxies", National Radio Astronomy Observatory, Array Operations Center, Socorro, New Mexico, January 19, 1993.
13. "High Spatial Resolution Imaging of Galaxies in Distant Clusters", Institute for Astronomy, University of Hawaii, Honolulu, Hawaii, February 8, 1993.
14. "Gravitational Lensing by Clusters of Galaxies", Centro de Astrofisica, Porto, Portugal, March 21, 1994.
15. "The Cleansing of Spiral Galaxies from Rich Clusters", Department of Physics, University of Wisconsin, Madison, Wisconsin, October, 11, 1994.
16. "HST Observations of the Tucana Dwarf Galaxy", Institute for Astronomy, University of Hawaii, Honolulu, Hawaii, November 21, 1994.

Russell J. Lavery

Invited Talks:

17. "HST Observations of the Tucana Dwarf Galaxy", School of Physics, University of Melbourne, Melbourne, Australia, January 6, 1995.
18. "Cleansing Spiral Galaxies from Rich Clusters", School of Physics and Astronomy, University of Minnesota, Minneapolis, Minnesota, January 20, 1995.
19. "Galaxies at the Edge: An Introduction to the Hubble Deep Field", Mid-Continent Space Development Conference, Iowa State University, Ames, Iowa, February 24, 1996.
20. "Distant Galaxies Seen Through Gravitational Telescopes", Fifth Annual Astronomy Seminar, Iowa Valley Continuing Education Center, Marshalltown, Iowa, April 15, 1996.
21. "Galaxies: Structure and Evolution", Second Central American Course on Astronomy and Astrophysics, University of El Salvador, San Salvador, El Salvador, April 23, 1996.
22. "Distant Ring Galaxies as a Cosmological Probe of Galaxy Interactions", Sixth Annual Iowa Space Grant Consortium Conference, Iowa State University, Ames, Iowa, November 9, 1996.
23. "New Cosmological Studies Using the HST Archives", Service d'Astrophysique, C.E.A. Saclay-Orme des Merisiers, Gif-sur-Yvette, France, March 11, 1997.
24. "Using Distant Galaxies as Gravitational Telescopes", Invited Lecturer, Department of Physics, Creighton University, Omaha, Nebraska, April 17, 1997.
25. "Gravitational Lensing by Galaxies and Groups in Distant Clusters", Osservatorio Astronomico di Brera, Milan, Italy, May 28, 1997.
26. "Distant Rings and Arclets Revealing the Morphology of Distant Galaxies", Dottorato di Ricerca in Astronomia, Universita di Pavia, Pavia, Italy, May 29, 1997.
27. "New Cosmological Initiatives Using the HST Archives", Instituto de Astrofisica de Canarias (IAC), La Laguna, Tenerife, Canary Islands, Spain, June 4, 1997.
28. "Basic Results from the Hubble Space Telescope". To the Ames Golden K Kiwanis, Ames, Iowa, December 4, 1997.
29. "Probing the Evolution of the Galaxy Interaction/Merger Rate Using Distant Collisional Ring Galaxies", Department of Physics & Astronomy, University of Missouri, Columbia, Missouri, April 26, 1999.
30. "Gravitational Lensing by Massive Objects in the Universe", Northern Arizona Astronomy Association, Flagstaff, Arizona, October 18, 2001.
31. "Using Collisional Ring Galaxies to Investigate the Galaxy Interaction/Merger Rate Out to a Redshift of 1", Lowell Observatory, Flagstaff, Arizona, January 9, 2004.