

JEFFERY A. BROWN

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PROFESSIONAL EXPERIENCE

SEATTLE UNIVERSITY, SEATTLE, WASHINGTON Physics Department, Seattle, WA 98122-1090	2004 – PRESENT
<i>Visiting Professor / Adjunct Professor</i>	2005 – 2008
<i>Lecturer</i>	2008 – September 2017
<i>Senior Instructor</i>	September 2017 – August 2022
<i>Associate Director, University Core Curriculum</i>	July 2016 – June 2022
<i>Associate Teaching Professor</i>	August 2022 – present
NORTH SEATTLE COMMUNITY COLLEGE, SEATTLE, WASHINGTON Physics Department, Seattle, WA 98103	SUMMER 2010
<i>Part-time Faculty, Physics</i>	
FRED HUTCHINSON CANCER RESEARCH CENTER, SEATTLE, WASHINGTON Safeco Plaza, Seattle, WA 98185-0001	2004 - 2008
<i>Systems Programmer IV</i>	
SAFECO INSURANCE, SEATTLE, WASHINGTON Safeco Plaza, Seattle, WA 98185-0001	2000 - 2003
<i>Programmer Analyst / IT Analyst</i>	
WASHINGTON STATE UNIVERSITY, PULLMAN, WASHINGTON Astronomy Program, Dept. of Pure & Applied Mathematics, Pullman, WA 99165	1996 - 2000
<i>Assistant Professor, Astronomy</i>	1996 - 2000
<i>Director, Program in Astronomy</i>	Acting 1997 – 1998, 1999 - 2000
UNIVERSITY OF WASHINGTON, SEATTLE, WASHINGTON Astronomy Department, Box 35580, Seattle, WA 98195	1988 - 1996
<i>Research Assistant Professor</i>	1991 - 1996
<i>Postdoctoral Research Associate</i>	1988 - 1991
INDIANA UNIVERSITY, BLOOMINGTON, INDIANA Astronomy Department, Swain Hall West 319, Bloomington, IN 47405	1986 - 1988
<i>Postdoctoral Research Associate</i>	1986 – 1988

EDUCATION

Ph.D., Astronomy, University of Texas, Austin, 1986
M.A., Astronomy, University of Texas, Austin, 1981
B.S., Astronomy and Physics, University of Washington, Seattle, 1978

AFFILIATIONS AND OTHER EXPERIENCE

- Full member, American Astronomical Society.
- Member, Sigma Xi.
- Advisory Board member, Earth and Sky radio program, 1993 – 2000.
- Served on grant review panel for National Science Foundation's Division of Astronomical Sciences, Stars & Stellar Systems section, November – December 1999.
- Gave invited review talk at June 2000 meeting of the Northwest Section of the American Physical Society, Vancouver, BC.
- Served as Editor pro tempore of the *Astronomical Journal*, August 1995.
- Member, Seattle area chapter of Association for Women in Science (AWIS-SA), 1988 – 1996, 2003 - present; co-chair, Program Committee 1990 – 1992, Newsletter Editor 1992 – 1994.
- Five years as Technical Editor for Star Date radio program.

PUBLICATIONS

Papers in Refereed Journals:

Bohm-Vitense, Erika; Carpenter, Kenneth; Robinson, Richard; Ake, Tom; Brown, Jeffery
“Do All Ba II Stars Have White Dwarf Companions?”
2000 *Astrophysical Journal*, 553, 969

Brown, Jeffery A.; Wallerstein, George; Gonzalez, Guillermo
“Elemental Abundances in Five Stars in M54, A Globular Cluster Associated with the Sagittarius Galaxy”
1999 *Astronomical Journal*, 118, 1245

Wachter, Stefanie; Wallerstein, George; Brown, Jeffery A.; Oke, J. B.
“Metallicities of Two Distant Globular Clusters from Spectra of Moderate Dispersion”
1998 *Publications of the Astronomical Society of the Pacific*, 110, 821

Charbonnel, Corinne; Brown, Jeffery A.; Wallerstein, George
“Mixing processes during the evolution of red giants with moderate metal deficiencies: the role of molecular-weight barriers”
1998 *Astronomy & Astrophysics*, 332, 204

Brown, Jeffrey A.; Wallerstein, George; Zucker, Daniel
“High-Resolution CCD Spectra of Stars in Globular Clusters. IX. The ‘Young’ Clusters Ruprecht 106 and Pal 12”
1997 *Astronomical Journal*, 114, 180

Zucker, Daniel; Wallerstein, George; Brown, Jeffery A.
“Abundances of Selected Elements in Five Oxygen-Poor Stars in Omega Centauri”

1996 Publications of the Astronomical Society of the Pacific, 108, 911

Brown, Jeffery A.; Wallerstein, George; Geisler, Doug; Oke, J. B.
“Chemical abundances in the Outer Disk Clusters Tombaugh 2, Melotte 71, and NGC 2112”
1996 Astronomical Journal, 112, 1551

Whitmer, John C.; Beck-Winchatz, Bernhard; Brown, Jeffery A.; Wallerstein, George
“Star no. 1412 in M4, a post-AGB star with low carbon and enhanced TiO”
1995 Publications of the Astronomical Society of the Pacific, 107, 127

Vanture, Andrew D.; Wallerstein, George; Brown, Jeffery A.
“Abundances in three heavy-element stars in Omega Centauri”
1994 Publications of the Astronomical Society of the Pacific, 106, 835

Brown, Jeffery A.; Wallerstein, George
“High resolution CCD spectra of stars in globular clusters. VIII - The self-enrichment history of Omega Centauri”
1993 Astronomical Journal, 106, 133

Brown, Jeffery A.; Wallerstein, George
“High-resolution CCD spectra of stars in globular clusters. VII - Abundances of 16 elements in 47 Tuc, M4, and M22”
1992 Astronomical Journal, 104, 1818

Vanture, Andrew D.; Wallerstein, George; Brown, Jeffrey A.; Bazan, Grant
“Abundances of Tc and related elements in stars of type M, MS, and S”
1991 Astrophysical Journal, 381, 278

Brown, J. A.; Wallerstein, G.; Cunha, K.; Smith, V. V.
“Oxygen and iron in omega Centauri Giants”
1991 Astronomy and Astrophysics, 249, L13

Brown, Jeffery A.; Wallerstein, George; Oke, J. B.
“High-resolution spectra of stars in globular clusters. VI - Oxygen-deficient red giant stars in M13”
1991 Astronomical Journal, 101, 1693

Gilroy, Kalpana Krishnaswamy; Brown, Jeffery A.
“Carbon isotope ratios along the giant branch of M67”
1991 Astrophysical Journal, 371, 578

Brown, Jeffery A.; Wallerstein, George; Oke, J. B.
“High-resolution CCD spectra of stars in globular clusters. V - Carbon, nitrogen, and oxygen abundances in stars in 47 Tuc, M4, and M22”
1990 Astronomical Journal, 100, 1561

Brown, Jeffery A.; Smith, Verne V.; Lambert, David L.; Dutchover, Edward, Jr.; Hinkle, Kenneth H.; Johnson, Hollis R.
“S stars without technetium - The binary star connection”
1990 Astronomical Journal, 99, 1930

Brown, Jeffery A.; Johnson, Hollis R.; Cutright, Lori C.; Alexander, David R.; Sharp, Christopher M.
“Model atmospheres for K and M giants”
1989 Astrophysical Journal Supplement Series, 71, 623

Brown, Jeffery A.; Wallerstein, George
“High-resolution CCD spectra of stars in globular clusters. IV - Carbon isotope ratios in red giants”
1989 Astronomical Journal, 98, 1643

Brown, Jeffery A.; Sneden, Christopher; Lambert, David L.; Dutchover, Edward, Jr.
“A search for lithium-rich giant stars”
1989 Astrophysical Journal Supplement Series, 71, 293

Elitzur, Moshe; Brown, Jeffery A.; Johnson, Hollis R.
“On the onset of mass loss in late-type stars”
1989 Astrophysical Journal, 341, L95

Brown, Jeffery A.
“Carbon-to-nitrogen ratios along the evolutionary sequence of M67”
1987 Astrophysical Journal, 317, 701

Brown, Jeffery A.
“Carbon, nitrogen, and oxygen abundances in M67 giants”
1985 Astrophysical Journal, 297, 233

Lambert, D. L.; Brown, J. A.; Hinkle, K. H.; Johnson, H. R.
“Carbon, nitrogen and oxygen abundances in Betelgeuse”
1984 Astrophysical Journal, 284, 223

Brown, J. A.; Twarog, B. A.
“The Hyades CN Anomaly?”
1983 Astronomical Journal, 88, 678

Brown, J. A.; Tomkin, J.; Lambert, D. L.
“Evidence of non-LTE in photospheric lines of G and K giants”
1981 Astrophysical Journal, 265, L93

Wallerstein, G.; Brown, J. A.; Bates, B. A.
“The chemical composition and luminosity of the CH-type Cepheid, V553 Centauri”
1979 Publications of the Astronomical Society of the Pacific, 91, 47

Unrefereed papers presented at meetings (except as noted, these are abstracts of contributed papers, and the presenter was the first author):

Wallerstein, George; Brown, Jeffery A.; Gonzalez, Guillermo
“Elemental Abundances in Two Stars in M54, a Globular Cluster Associated with the Sagittarius Galaxy”
1999, in Unsolved Problems in Stellar Evolution, M. Livio ed. (Baltimore: Space Telescope Science Institute), p. 88

Charbonnel, Corinne; Brown, Jeffery A.; Wallerstein, George
“New Clues on Non-Standard Mixing on the RGB”
1999, in Unsolved Problems in Stellar Evolution, M. Livio ed. (Baltimore: Space Telescope Science Institute), p. 5

Brown, J. A.; Wallerstein, G.; Gonzalez, G.
“Elemental Abundances in five stars in M54”
1998 Bulletin of the American Astronomical Society, 30, 1348

Brown, Jeffery A.; Wallerstein, George; Zucker, Daniel
“Echelle Spectroscopy and Abundances in Ruprecht 106 and Arp 2”
1996, in Formation of the Galactic Halo... Inside and Out, H. Morrisson and A. Sarajedini, eds. (San Francisco: Astronomical Society of the Pacific), p. 355

Zucker, D.; Wallerstein, G.; Brown, J. A.
“Selected Elemental Abundances in Five Oxygen-Poor Stars in Omega Centauri”
1996, in Proceedings of the sixth annual October Astrophysics Conference in College Park, Maryland, S. S. Holt and G. Sonneborn, eds. (San Francisco: Astronomical Society of the Pacific), p. 203

Brown, J. A.; Wallerstein, G.; Zucker, D.
“Abundances in the Young Globulars Ruprecht 106 and Pal 12”
1995 Bulletin of the American Astronomical Society, 27, 1404

Snedden, C.; Basri, G.; Boesgaard, A.; Brown, J. A.; Carney, B. W.; Kraft, R. P.; Smith, V. V.; Suntzeff, N. B.
“Stellar Population and Abundance Studies at High Resolution with Very Large Telescopes”
1995 Publications of the Astronomical Society of the Pacific, 107, 997
(N.b.: this is a summary of the invited papers, from each of the named authors, presented at the meeting)

Brown, Jeffery A.; Wallerstein, George; Geisler, Doug
“Life on the Fringe: Abundances in the Distant Anti-Center Cluster Tomabaugh 2”
1994, in The Local Group: Comparative and Global Properties, A. Layden, R. C. Smith, and J. Storm, eds. (Garching: European Southern Observatory), p. 95

Brown, J. A.; Wallerstein, G.; Geisler, D.
“The Chemical Composition of the Remote Disk Cluster Tomabaugh 2”
1993 Bulletin of the American Astronomical Society, 25, 1455

Vanture, Andrew D.; Wallerstein, George; Brown, Jeffery A.
“Abundances in Three Heavy-Element Stars in omega Centauri”
1993 Bulletin of the American Astronomical Society, 25, 885

Brown, Jeffery A.; Wallerstein, George
“CNO and Metals in Stars in Omega Centauri”
1993 in The globular cluster-galaxy connection, G. H. Smith and J. P. Brodie, eds. (San Francisco: Astronomical Society of the Pacific), p. 188

Brown, J. A.; Wallerstein, G.

“Elemental Abundances in Six Stars in omega Centauri”
1992 Bulletin of the American Astronomical Society, 24, 1208

Brown, J. A.; Wallerstein, G.
“Metal Abundances in Stars in 47 Tuc, M4, and M22”
1991 Bulletin of the American Astronomical Society, 23, 1328

Green, P. J.; Margon, B.; Brown, J.; MacConnell, D. J.
“Luminosity Indicators for Warm Carbon Stars: Dwarfs Among the Giants”
1991 Bulletin of the American Astronomical Society, 23, 1385

Vanture, A. D.; Wallerstein, G.; Brown, J. A.; Bazan, G.
“Abundances of Technetium and Related Elements in Stars of Types M, MS, and S”
1991 Bulletin of the American Astronomical Society,

Brown, J. A.; Wallerstein, G.; Smith, V. V.
“[O/Fe] in Giants in omega Centauri”
1991 Bulletin of the American Astronomical Society, 23, 966

Brown, Jeffery A.; Wallerstein, G.; Oke, J. B.
“C, N, and O Abundances in Red Giants in Globular Clusters”, 23, 966
1991, in Cambridge Workshop on Cool Stars, Stellar Systems, and the Sun, 1989, G. Wallerstein, ed.
(San Francisco: Astronomical Society of the Pacific), p. 372

Brown, J. A.; Wallerstein, G.; Oke, J. B.
“CNO Abundances of Red Giants of Globular Clusters”
1991, in The Formation and Evolution of Star Clusters, K. Janes, ed. (San Francisco: Astronomical Society of the Pacific), p. 554

Johnson, Hollis R.; Ake, Thomas B.; Ameen, Mudhaffer M.; Brown, Jeffery A.
“A continuing search for companions to PRG stars”
1990, in From Miras to Planetary Nebulae: Which Path for Stellar Evolution?, editor unknown, (Gif-Sur-Yvette, France: International Astronomical Union), pp. 332-334

Johnson, H. R.; Brown, J. A.; Hinkle, K. H.
“A Survey of MS and S Stars for He I 10830”
1989 Bulletin of the American Astronomical Society, 21, 748

Brown, J. A.; Johnson, H. R.; Hinkle, K. H.
“He I λ 10830 in the S Star HR 1105”
1989, in Evolution of Peculiar Red Giant Stars, H. R. Johnson and B. Zuckerman, eds. (San Francisco: Astronomical Society of the Pacific), p. 378

Augason, G. C.; Brown, J. A.; Alexander, D. R.
“Comparison of Blanketing in a 3000K Oxygen Rich, Spherically Symmetric Model with the Blanketing in Non-Mira M Giant Stars”
1989, in Evolution of Peculiar Red Giant Stars, H. R. Johnson and B. Zuckerman, eds. (San Francisco: Astronomical Society of the Pacific), p. 157

Alexander, D. R.; Augason, G. C.; Brown, J. A.; Johnson, H. R.
“Fluxes in M Giants with Improved Water Vapor Opacity”
1989, in Evolution of Peculiar Red Giant Stars, H. R. Johnson and B. Zuckerman, eds. (San Francisco: Astronomical Society of the Pacific), p. 153

Brown, J. A.; Johnson, H. R.; Alexander, D. R.; Augason, G. C.; Wehrse, R.
“Opacity Sampled, Spherically Extended Model Atmospheres for Cool Stars”
1987 Bulletin of the American Astronomical Society, 19, 1026

Brown, J. A.; Johnson, H. R.; Alexander, D. R.; Wehrse, R.
“Opacity Sampled, Spherically Extended Model Atmospheres for Cool Stars”
1987 Bulletin of the American Astronomical Society, 19, 705

Brown, J. A.
“Carbon and nitrogen abundances along the evolutionary sequence of M67”
1985 Bulletin of the American Astronomical Society, 17, 840

Brown, J. A.
“Carbon, nitrogen, and oxygen abundances in M67 giants”
1984 Publications of the Astronomical Society of the Pacific, 96, 785

Snedden, C.; Brown, J. A.; Dutchover, E.; Lambert, D. L.
“A Search of Lithium-rich Giant Stars”
1984 Bulletin of the American Astronomical Society, 16, 490

Brown, J. A.
“Carbon Isotope Ratios in Two Giants in M67”
1982 Bulletin of the American Astronomical Society, 14, 650

Thesis

Brown, Jeffery Allan

“Carbon and nitrogen abundances along the evolutionary sequence of M67”
1986 Ph.D. thesis, University of Texas at Austin