

## EDUCATION

Ph.D. Astronomy, University of Maryland, College Park, 2000

Thesis: *Chemistry in Comets Hale-Bopp and Hyakutake*

M.S. Astronomy, University of Maryland, College Park, 1997

B.A. Physics with Departmental and University Honors, The Johns Hopkins University, 1993

## HONORS

Asteroid 13001 Woodney. Named for me to honor my contributions to Planetary Science (2011).

## PROFESSIONAL EXPERIENCE

<b>Professor</b>	2015-present
California State University, San Bernardino, Department of Physics	
<b>Associate Professor</b>	2010-2015
California State University, San Bernardino, Department of Physics	
<b>Assistant Professor</b>	2005-2010
California State University, San Bernardino, Department of Physics	
<b>Assistant Professor</b>	2003-2005
University of Central Florida, Department of Physics, Orlando FL	
<b>Postdoctoral Research Assistant</b>	2000-2003
Lowell Observatory, Flagstaff AZ	

## LEADERSHIP

2017 HERS - Leadership Institute for Women in Higher Education

2017 - Present. **Dean's Fellow**, Presidential Scholar Advisor. Responsible for running the College of Natural Sciences Presidential Scholar Program. There are approximately 70 scholars in the college with this full tuition scholarship awarded by the CSUSB President's office.

2010-2015 **Founding Director**, Murillo Family Observatory at CSUSB. Oversaw the building of the observatory, installation of the fully robotic telescope and the establishment of the current education programs.

2003-2005 **Director**, Robinson Observatory at University of CF. Managed the observatory operations and oversaw the education and outreach programs.

## TEACHING

### Undergraduate Lecture and Laboratory

- 19 different courses and laboratories taught.

### NSF WIDER Program grant - ISSUES: Investigating Student Success Using Evidence based Strategies

- 2013-2015 member of the CSUSB, College of of Natural Sciences team that established a Learning Community to investigate and implement evidence based strategies for teaching.

### CSUSB Teaching Resource Center Course (Re)Design Institutes

- 2015 Facilitator of pedagogy institute
- 2014 Participant in pedagogy institute

### NASA CAE Tier I & II Workshops

- Active Learning techniques for Introductory Astronomy

**Student research**

- Undergraduate research projects supervised at Lowell Observatory, UCF and CSUSB
- 17 students supervised, 6 have gone on to receive Ph.Ds, 1 currently attending graduate school
- 9 students supervised on professional observing runs to Lowell, Kitt Peak and Mauna Kea Observatories
- 7 students have presented their work at professional conferences (references in Conference Proceedings section)

**SELECT ACADEMIC SERVICE**

General Education Transformation Committee. 2016-2017

Society of Physics Students Faculty Advisor. 2008 - 2014

California Space Grant Director for CSUSB. 2008 - 2015

Referee: *Geophysical Research Letters*, *Publications of the Astronomical Society of Japan*, *Icarus*, *Astrophysics & Space Science*, *Astronomy and Astrophysics*

Member of the US National Optical Astronomical Observatories Telescope Time Allocation Committee 2013 - 2016

Review Panel Member, NASA Planetary Programs, 2001, 2005, 2006, 2007, 2008, 2011, 2015

Review Panel Member, Hubble Space Telescope, 2005

Review Panel Member, Spitzer Space Telescope, 2006, 2008 (Deputy Chair)

**PROFESSIONAL ORGANIZATIONS**

Division of Planetary Science of the American Astronomical Society

American Geophysical Union

**REFEREED PAPERS**

Fernandez, Y.R., J.-Y. Li, E.S. Howell, and L.M. Woodney (2015). Chapter 184: Asteroids and Comets. “*Treatise on Geophysics*”, 2nd ed., Gerald Schubert Ed., Elsevier Press. *in press*.

Schambeau, C.A., Y.R. Fernandez, C.M. Lisse, N.H. Samarasinha and L.M. Woodney (2015). A New Analysis of Spitzer Observations of Comet 29P/Schwassmann-Wachmann 1. *Icarus*, **260**, 60-72.

Kramer, E.A., Y.R. Fernandez, C.M. Lisse, M.S. Kelly, L.M. Woodney (2014). A Dynamical Analysis of the Dust Tail of Comet C/1995 O1 (Hale-Bopp) at High Heliocentric Distances. *Icarus*, **236**, 136-145.

Remijan, A.J., S.J. Milam, M. Womack, A.J. Apponi, L.M. Ziurys, S. Wyckoff, M.F. A’Hearn, I. de Pater, J.R. Forster, D.N. Friedel, P. Palmer, L.E. Snyder, J.M. Veal, L.M. Woodney, M.C.H. Wright (2008). The Distribution, Excitation and Formation of Cometary Molecules: Methanol, Methyl Cyanide and Ethylene Glycol. *Astrophys.J.*, **689**, 613-621.

Milam, Stefanie N., A.J. Remijan, M. Womack, L. Abrell, L.M. Ziurys, S. Wyckoff, A.J. Apponi, D.N. Friedel, L.E. Snyder, J.M. Veal, P. Palmer, L.M. Woodney, M.F. A’Hearn, J.R. Forster, M.C.H. Wright, I. de Pater, S. Choi, and M. Gesmundo (2006). Formaldehyde in Comets C/1995 O1 (Hale-Bopp), C/2002 T7 (LINEAR), and C/2001 Q4 (NEAT): Investigating the Cometary Origin of H<sub>2</sub>CO. *Astrophys. J.*, **649**, 1169-1177.

Meech, K.J. and 205 other authors, including Woodney, L.M.. The Deep Impact Earth-Based Campaign. *Science*, **310**, 265-269.

Meech, K. J., M.F. A’Hearn, Y.R. Fernandez, C.M. Lisse, H.A. Weaver, N. Biver, L.M. Woodney 2005. The Deep Impact Earth-Based Campaign. *Space Science Reviews*, **117**, 297-334.

Hogerheijde, M.R., I. de Pater, M. Wright, J.R. Forster, L.E. Snyder, A. Remijan, L.M. Woodney, M.F.

- A'Hearn, Y.-J. Kuan, H.-C. Huang, G. A. Blake, C. Qi, J. Kessler, S.-Y. Liu (2004). Combined BIMA and OVRO Observation of Comet C/1999 S4 (LINEAR). *Astron. J.*, **127**, 2406-2412.
- Schleicher, D. G., L. M. Woodney, and R.L. Millis (2003). Comet 19P/Borrelly at Multiple Apparitions: Seasonal Variations in Gas Production and Dust Morphology. *Icarus*, **162**, 415-442.
- Schleicher, D. G. and L. M. Woodney (2003). Analysis of Dust Coma Morphology of Comet Hyakutake (1996 B2) Near Perigee: Outburst Behavior, Jet Motion, Source Region Locations, and Nucleus Pole Orientation. *Icarus*, **162**, 190-213.
- Schleicher, D. G., L. M. Woodney and P.V. Birch (2002). Photometry and Imaging of Comet LINEAR (2000 WM1). *Earth, Moon and Planets*, **90**, 401-403.
- Woodney, L.M., M.F. A'Hearn, D. G. Schleicher, T.L. Farnham, J. McMullin, M. C. H. Wright, J. M. Veal, L. E. Snyder, I. de Pater, J. R. Forster, Patrick Palmer, Y.-J. Kuan, W.R. Williams, C.C. Cheung, B.R. Smith (2001). Morphology of HCN and CN in Comet Hale-Bopp (1995 O1). *Icarus*, **157**, 193-204.
- Farnham, Tony L., D. G. Schleicher, L. M. Woodney, P. V. Birch, C. A. Eberhardy, L. Levy (2001). Imaging and Photometry of Comet C/1999 S4 (LINEAR) Before Perihelion and After Breakup. *Science*, **292**, 1348-1353.
- Snyder, L. E., J. M. Veal, L. M. Woodney, M. C. H. Wright, Patrick Palmer, Michael F. A'Hearn, Y.-J. Kuan, I. de Pater, and J. R. Forster (2001). BIMA Array photodissociation Measurements of HCN and CS in Comet Hale-Bopp (C/1995 O1). *Astronomical Journal*, **121**, 1447-1154.
- Veal, J. M., L. E. Snyder, M. C. H. Wright, L. M. Woodney, Patrick Palmer, J. R. Forster, I. de Pater, M. F. A'Hearn, and Y.-J. Kuan (1998). An Interferometric Study of HCN in Comet Hale-Bopp (C/1995 O1). *Astronomical Journal*, **119**, 1498-1511.
- Wright, M. C. H., I. de Pater, J. R. Forster, Patrick Palmer, Lewis E. Snyder, J. M. Veal, Michael F. A'Hearn, L. M. Woodney, William L. Jackson, Y.-J. Kuan, and A. J. Lovell (1998). Mosaiced Images and Spectra of  $J=1 \rightarrow 0$  HCN and  $\text{HCO}^+$  emission from Comet Hale-Bopp (1995 O1). *Astronomical Journal*, **116**, 3018-3028.
- Woodney, L. M., M. F. A'Hearn, J. McMullin, and N. Samarasinha (1997). Sulfur Chemistry at Millimeter Wavelengths in C/Hale-Bopp. *Earth, Moon, and Planets*, **78**, 69-70.
- Woodney, L. M., J. McMullin and M. F. A'Hearn (1997). Detection of OCS in C/Hyakutake (1996 B2). *Planetary and Space Science*, **45**, 717 - 719.
- Ballester, G. E., W. M. Harris, G. R. Gladstone, J. T. Clarke, R. Prange, C. Emerich, A. Talavera, S. A. Budzien, P. D. Feldman, M. R. Combi, T. A. Livengood, M. B. Vincent, M. A. McGrath, D. T. Hall, D. F. Strobel, J. M. Ajello, L. ben Jaffel, D. Rego, G. F. Fireman, K. L. Jessup, L. M. Woodney, S. Miller, and X. Liu (1995). Far-UV emissions from the SL9 impacts with Jupiter. *Geophysical Research Letters*, **22**, 2425 - 2428.
- Spencer, J. R., B. E. Clark, L. M. Woodney, W. M. Sinton, and D. Toomy (1992). Io hot spots in 1991: Results from Europa occultation photometry and infrared imaging. *Icarus*, **107**, 195-208.
- Woodney, L. M. (1991). A Revision of the Elements for EL Comae Berenices. *Journal of the American Association of Variable Star Observers*, **20**, 229-230.
- Woodney, L. M. and A. R. Lesser (1991). V343 Cygni: A W Virginis Star with a constant Period. *Journal of the American Association of Variable Star Observers*, **20**, 212-213.