

Kevin B. Marvel

marvel@aas.org

Deputy Executive Officer  
Office (202) 328-2010  
Fax (202) 234-2560

American Astronomical Society  
2000 Florida Avenue, NW, Suite 400  
Washington, DC 20009

## Education

B.S. (Physics) University of Arizona 1990  
B.S. (Astronomy) University of Arizona 1990  
M.S. (Astronomy) New Mexico State University 1994  
Ph.D. (Astronomy) New Mexico State University 1996

## Experience

University of Arizona. Tutor for dyslexic students in all areas of science and mathematics. 1986-90.  
Research Assistant/Independent Studies with William Tifft, 1986-87; Ramesh Narayan, 1988-1989; Roc Cutri, 1988-90. Laboratory instructor for Astronomy 101, 1989-90.  
National Radio Astronomy Observatory. Summer research student with Miller Goss, 1988.  
Commonwealth Scientific and Industry Organisation-Division of Radiophysics, Australia. Winter (northern summer) research student, 1989 (with R. Manchester).  
New Mexico State University. Teaching assistant for Astronomy 110, 1990-91; Head TA for Astronomy 110, 1991-93; research assistant with Andrew McWilliam, 1990-91, Jack O. Burns, 1991-94; Graduate Student Research Fair committee member, 1991-92; Graduate Student Research Fair chairman, 1992-93; graduate student body president, 1993-94; organizer for the Hatch, NM, schools science teacher outreach program, 1993-94; graduate student representative on the campus computing committee, 1993-94.  
National Radio Astronomy Observatory. Predoctoral researcher, 1994-96 (with P. Diamond).  
California Institute of Technology-Owens Valley Radio Observatory. Postdoctoral Scholar, 1996-1998 (with A. Sargent).  
American Astronomical Society, Associate Executive Officer for Policy Programs, 1998-2001. Perform employment statistics surveys, manage AAS career services, administer small research and international travel grants programs, interact with other scientific societies and perform government relations including direct lobbying for increased astronomy funding, organizing congressional visits and programs, serving as spokesperson for science policy issues and planning as well as organizing policy activities at AAS meetings.  
American Astronomical Society, Deputy Executive Officer, 2002-Present. Duties expanded to include management of Society Business and to serve as replacement for Executive Officer (2002) and management of Publications group (2003).

## Other Activities

President, New Mexico State University Graduate Student Council, 1994.  
Co-Director, US-Science.Org, A multi-party, multi-candidate Political Action Committee 2001-Present.  
Co-Chair, Science, Engineering and Technology Workgroup, Congressional Visits Day, 2000-Present  
Board of Directors, American Association of Variable Star Observers, 2000-2003.  
Vice President, American Association of Variable Star Observers, 2002-  
Founder, Decadal-Surveys.Org., a non-profit organization dedicated to furthering prioritization within science.  
Member, National Radio Astronomy Observatory User's Committee, 2001-2004.  
Proposal Referee, National Radio Astronomy Observatory, 2003-2006.  
Member, University of Arizona Physics Department Advisory Board, 2003-  
Member, New Mexico State University College of Arts and Sciences Dean's Council of Excellence in the Sciences, 2004-

## Honors

University of Arizona. Undergraduate research grant, Best Oral Presentation Award, 1989 and 1990.  
New Mexico State University, Graduate student research fair awards 1992, 1993, 1994.  
New Mexico State University, Pegasus Award (excellence in teaching), 1994.

## Grants

University of Arizona. Undergraduate research grants, 1988 and 1989.  
New Mexico State University. Sigma Xi graduate research grant, 1993 and 1994.  
New Mexico State University. Co-applicant with Jack O. Burns for NASA supplemental education grant, 1992 and 1993.  
NASA Grant – AAS Small Research Grant Program, 1998-Present ~ \$100,000/year with occasional supplements of ~30,000 for travel support.  
NSF Grants – AAS International Travel Grant, ~ \$75,000/year, ~\$130,000 every third year.  
– Bok and Lines scholarship Grant, ~\$30,000/year, 1999-2002.

## Memberships

American Astronomical Society	American Association for the Advancement of Science
American Geophysical Union	American Association of Variable Star Observers
Astronomical Society of the Pacific	Amnesty International
Sigma Xi, The Scientific Research Society	Surfrider Foundation
International Dark Sky Association	

## Invited talks

Lunch Talk, Max Planck Institut für Radioastronomie, *First Measurements of Proper Motions of Circumstellar Water Masers*, June 29, 1995.

Colloquium, University of Nevada Las Vegas, Department of Physics and Astronomy, *M's & M: Masers and Motion*, September 26, 1997.

Lunch Talk, Onsala Space Observatory, *Proper Motions of Astrophysical Water Masers*, June 23, 1998.

Lunch Talk, Max Planck Institut für Radioastronomie, *Proper Motions of Astrophysical Water Masers*, July 1, 1998.

Public Evening Talk, Agnes Scott College, *History of Lenses*, December 11, 1998.

Lunch Talk, Naval Research Laboratory Remote Sensing Division, *Masers and Motion*, January 22, 1999.

Public Talks, Baltimore Amateur Astronomers Society, Baltimore Science Center, Aug. 1998, September 1999.

University of Arizona, Department of Physics – Physics Alumni Lecture Series, *A Physicist (Astronomer) in Science Policy*, May 1, 2001

National Academy of Science – Christine Mirzayan Intern Panel Discussion, *Science in Popular Entertainment*, July 27, 2001.

University of Arizona – College of Science Professional Masters Program, *Careers in Science Policy*, April 3, 2002.

National Optical Astronomy Observatories – Friday Lunch Talk Series, *Astronomy in the Federal Budget*, April 5, 2002

Indiana University – Colloquium, *M's & M's: Masers and Motions*, April 16, 2002

Indiana University – Graduate Seminar, *Astronomy in the Federal Budget*, April 18, 2002

Smith College/UMASS Amherst – Colloquium, *Astronomy and Public Policy*, April 29, 2002

Smith College – Astronomy Policy Course, *Working in Policy, What do you Do?*, April 30, 2002

[MISSING TALKS?]

American Institute of Physics Society Officers Meeting – *The Age of Expansion of Coalitions*, March 27, 2003

National Optical Astronomy Observatory – *Astronomy and Public Policy*, April 25, 2003

Annual Virginia Outdoor Lighting Workshop – *Visiting Policy Makers and Having an Impact*, May 9, 2003

National Research Council panel on NSF Prioritization – *Astronomy, Major Research Equipment and Priority Setting*, May 20, 2003

National Research Council Committee on Planetary and Lunar Exploration Spring 2003 Meeting – *Astronomy and Public Policy*, June 2, 2003

Women in Astronomy II – *Recent Statistics from the American Astronomical Society on Women in Astronomy*, June 27, 2003

Society for the Advancement of Chicanos and Native Americans in Science National Meeting 2003 – *I Threw the Map Out About a Mile Back*, October 2, 2003

University of Michigan Department of Astronomy – *Astronomy and Public Policy (with a bit about masers near Herbig Ae Stars)*, November 13, 2003

## Publications

### Papers in refereed publications (bold indicates first author)

#### Published

Photometric Calibration of NGS/POSS and ESO/SERC Plates Using the NOAO PDS Measuring Engine. I - Stellar Photometry, by R. M. Cutri, F. J. Low and K. B. Marvel. Publications of the Astronomical Society of the Pacific, 104:223, 1992.

VLA Imaging of a Sample of Steep-Spectrum Radio Galaxies with G. Rhee, T. Wilson, J. Roland, M. Bremer, N. Jackson and J. Webb. Astrophysical Journal Supplements, 107:175, 1996.

**The Circumstellar Environment of Evolved Stars as Revealed by Studies of Circumstellar Water Masers**, Publications of the Astronomical Society of the Pacific, 109:1286, 1997.

Distribution and Motion of the Water Masers near IRAS 05413-0104 with M.J. Claussen, A. Wootten and B.A. Wilking, Astrophysical Journal, 507:L79--L82, 1998.

**A VLA Search for Head-Tail Radio Sources in Abell Clusters** with H. Shukla and G. Rhee. Astrophysical Journal Supplement Series, 120:147-170, 1999.

**Observations of Water Masers Associated with the Proto-Planetary Nebula Candidate IRAS 19296+2227** with D.A. Boboltz, Astronomical Journal, 118:1791, 1999.

**H I Imaging of Cassiopeia I** with E. M. Wilcots, Astronomical Journal, 120:2038, 2000.

A Microjet: A Protostar's Cry at Birth, with R.S. Furuya, Y. Kitamura, H.A. Wootten, M.J. Claussen and M. Saito, Astrophysical Journal Letters, 542:135, 2000

Rotation in the Envelope of an Evolved Star: Observations of the SIO Masers Toward NML Cygni, with D. A. Boboltz, Astrophysical Journal Letters, 545:149, 2000

A VLA Search for the Ohio State "Wow", with R. H. Gray, Astrophysical Journal, 546:1171, 2001

**Astrophysics: A stellar performance**, Nature, 411:251, 2001 (invited News and Views Column)

#### Submitted

**No Methane Here. The HCN Puzzle: Searching for CH<sub>3</sub>OH and C<sub>2</sub>H in Oxygen-rich Stars,**  
Astronomical Journal

### Work in Progress

**The Water Masers of U Herculis and RX Bootis** with P. Diamond.  
**The Water Masers of S Perseus** with P. Diamond.  
**The Water Masers of IK Taurus** with P. Diamond, M.J. Claussen and M. Hodges.  
**The Water Masers of VX Sagittarius** with P. Diamond.  
**The Water Masers of NML Cygnus** with P. Diamond.  
**The Water Masers of VY Canis Majoris** with P. Diamond.  
**The Water Masers of IRAS4 A/B** with M.J. Claussen, H.A. Wootten and B. Wilking.  
The Water Masers of SVS 13 with M.J. Claussen, H.A. Wootten and B. Wilking.  
The Water Masers of IRAS 16293 with M.J. Claussen, H.A. Wootten and B. Wilking.  
**SiO and Isotopic CO Observations of HH212** with A. Sargent and M. McCaughrean.  
**3mm and 7mm SiO Maser Observations of Evolved Stars** with F. Colomer and collaborators.  
**Herbig Ae Star Masers** with V. Mannings.

### **Books or Book Chapters**

*Recent Advances and Issues in Astronomy* with C. G. De Pree and A. Axelrod, published by Oryx Press, 11/30/2002.  
*Astronomy in the FY## Budget* (chapter in R&D in the FY## Budget, AAAS Press), for 2000, 2001, 2002 and 2003, 2004.  
*Astronomy Made Simple*, to be published by Philip Leif Group 2004.

### **Conference contributions**

**Water Masers Around the Supergiant IK Tau**, with P. J. Diamond. Bulletin of the American Astronomical Society, 181:1006, 1992.  
**Water Masers Around the Supergiant S Per**, with P. J. Diamond. Bulletin of the American Astronomical Society, 181:1007, 1992.  
**A Successful 2-year Astronomy Program for the Hatch, New Mexico, School Teachers**, with J. O. Burns, Bulletin of the American Astronomical Society, 185:2903, 1994.  
**Preliminary Results from a VLBA Circumstellar Water Maser Monitoring Project**, with P. J. Diamond, Bulletin of the American Astronomical Society, 185:8301, 1994.  
**Proper Motions of Circumstellar Water Masers**, Bulletin of the American Astronomical Society, 187:1306, 1995.  
**First Proper Motion Measurements of Circumstellar Water Masers** with P. J. Diamond, in *Radio Emission from the Stars and the Sun*, Astronomical Society of the Pacific Conference Series, vol. 93, p. 104, 1996.  
Water masers toward low-luminosity young stellar objects with M.J. Claussen, H. A. Wootten and B.A. Wilking, in *Herbig-Haro flows and the birth of stars*; IAU symposium 182, 1997, p. 515-524.  
**Proper Motions of Water Masers in Circumstellar Shells** with P.J. Diamond and A.J. Kemball, in *ASP Conference Series 154, The Tenth Cambridge Workshop on Cool Stars, Stellar Systems and the Sun*, 1998.  
**Proper Motions of Water Masers in Circumstellar Shells** with P. J. Diamond and A. J. Kemball. in *Proceedings of IAU Colloquium164: Radio Emission from Galactic and Extragalactic Sources*, 1997.  
**Water Masers Toward the Low-Luminosity YSO IRAS 05413-0104** with M.J. Claussen, H.A. Wootten and B.A. Wilking, in *Proceedings of IAU Colloquium164: Radio Emission from Galactic and Extragalactic Sources*, 1997.  
**Proper Motions of Water Masers Near Young Stellar Objects: IRAS 05413-0104 a.k.a. HH212** with M. Claussen, A. Wootten and B. Wilking, in *Proceedings of the NASA Origins Conference*, Estes Park, CO, 1997.

**Phase Correction at Millimeter Wavelengths Using Observations of Atmospheric Water Vapor at 22 GHz** with D.P. Woody, *Bulletin of the American Astronomical Society*, 192:8103, 1998.

**Phase Correction at Millimeter Wavelengths Using Observations of Atmospheric Water Vapor at 22 GHz** with D.P. Woody, *Proc. SPIE Vol. 3357*, p. 442-452, *Advanced Technology MMW, Radio, and Terahertz Telescopes*, Thomas G. Phillips; Ed. 1998.

Temporal Evolution of Maser Structures Within 1 AU of IRAS16293 with A. Wootten, M.J. Claussen and B.A. Wilking, in *The Physics and Chemistry of the Interstellar Medium*, Abstract Book of the 3<sup>rd</sup> Cologne-Zermatt Symposium, held in Zermatt, September 22-25, 1998, Ed.: V. Ossenkopf Shaker-Verlag Aachen. p.E134.

**Water Masers Near the Proto-Planetary Nebula Candidate IRAS 19296+2227** with D.A. Boboltz, *Bulletin of The American Astronomical Society*, 193:1401, 1998.

SiO Maser Emission Toward the Red Supergiant NML Cygni with D.A. Boboltz, *Bulletin of the American Astronomical Society*, 194:5005.

Temporal Evolution of Maser Structures Within 1 AU of IRAS16293 with A. Wootten, M.J. Claussen and B.A. Wilking, *Bulletin of the American Astronomical Society*, 194:5012.

A Micro Jet in the Extremely Young Protostar S106 FIR with R. Furuya, Y. Kitamura, M. Claussen, A. Wootten, M. Saito and R. Kawabe, *Bulletin of the American Astronomical Society*, 194:5013.

Water Maser Structures within 1 AU of IRAS16293? with A. Wootten, M.J. Claussen and B.A. Wilking in *The Physics and Chemistry of the Interstellar Medium, Proceedings of the 3<sup>rd</sup> Cologne-Zermatt Symposium, held in Zermatt, September 22-25, 1998*, Eds.: V. Ossenkopf, J. Stutzki, and G. Winnewisser, GCA-Verlag Herdecke, ISBN 3-928973-95-9, p. 295.

**Observations of HCN associated with TX Cam and IK Tau**, *Bulletin of the American Astronomical Society*, 31:1437, 1999..

Proper Motions of Water Masers within 1 AU of IRAS 16293-2422 with H.A. Wootten, M.J. Claussen and B. Wilking, *Bulletin of the American Astronomical Society*, 31:1446, 1999.

Using a PC-based Chemical Spectrometer for Undergraduate Astronomy Labs with C. G. De Pree, *Bulletin of the American Astronomical Society*, 31:1529, 1999.

The Demographics of Women in Astronomy with M. Urry and B. Blacker, *Bulletin of the American Astronomical Society*, 31:1552, 1999.

A Micro Jet in the Extremely Young Protostar S106 FIR with R.S. Furuya, Y. Kitamura, M.J. Claussen, H.A. Wootten, M. Saiton and R. Kawabe, *Star Formation 1999, Proceedings of Star Formation 1999*, held in Nagoya, Japan, June 21 - 25, 1999, Editor: T. Nakamoto, Nobeyama Radio Observatory, p. 297-297

**High Angular Resolution Observations of Maser Kinematics Near Low Mass Young Stellar Objects**, Galaxies and their Constituents at the Highest Angular Resolution, International Astronomical Union. Symposium no. 205. Manchester, England, August 2000

**Water Masers Associated with IRAS 4A** with M. J. Claussen, H. A. Wootten and B. Wilking, *Bulletin of the American Astronomical Society*, 196:04.02, 2000.

**The Water Masers of U Herculis**, *Bulletin of the American Astronomical Society*, 195:45.08, 2000.

Proper Motion of Water Masers near NGC1333-SVS13 with H.A. Wootten, M.J. Claussen and B. Wilking, *Bulletin of the American Astronomical Society*, 197:132.05, 2000.

Water Masers around IK Tau with M.W. Hodges and M.J. Claussen, *Bulletin of the American Astronomical Society* 198:14.05, 2001.

**A Look Back at the AAS Small Research Grant Program 1990-2000** *Bulletin of the American Astronomical Society* 198:15.02, 2001.

Recommendations of "Enhancing the Postdoctoral Experience for Scientists and Engineers" with M. Singer, J. Burns, A. Schweitzer and L. Sage, *Bulletin of the American Astronomical Society* 199:30.02, 2001

**The Spatial Distribution of SiO Masers in AGB Stars at 43 and 86 GHz** with F. Colomer, J.-F. Desmurs, V. Bujarrabal, J. Alcolea, P.J. Diamond, D. Boboltz and A. Kembal, *Bulletin of the American Astronomical Society*, 199:92.14, 2001

Policy Insider Panel with D. Goldston, A. Teich, B. Sponberg and R. Palmer, *Bulletin of the American Astronomical Society*, 199:107.01, 1999.

The Process of Science Policy with F. Slakey, P. Folger, N. Lymn, J. Wiseman and S. Stephan, 199.144:01, 1999.

## References

Dr. Phillip Diamond  
Director, MERLIN Telescope  
NRAL  
Jodrell Bank  
Cheshire, ENGLAND  
(1477) 571-321

Dr. Anneila Sargent  
Director, Michelson Science Center  
Department of Astronomy  
Pasadena, CA 91125  
(626) 395-4973

Dr. Robert Milkey  
American Astronomical Society  
Executive Officer  
2000 Florida Ave., NW, Suite 400  
Washington, DC 20009  
(703) 660-9158

Dr. Jack Burns  
Vice-Provost, University of Missouri, Columbia  
Office of Research and Graduate School  
205 Jesse Hall  
University of Missouri, Columbia  
Columbia, MO 65211  
(573) 882-6596

Dr. Anne Kinney  
Director, NASA Origins Program  
NASA HQ  
Code SR  
300 E. St., SW  
Washington, DC  
(202) 358-0369