

## Cumulative Bio–Bibliography

University of California, Santa Cruz, CA  
September 2006

### **Sandra M. Faber**

Astronomer/Professor of Astronomy and Astrophysics  
University of California Observatories/Lick Observatory

## ACADEMIC HISTORY

- 1966            B.A. in Physics (High Honors), Swarthmore College  
1972            Ph.D. in Astronomy, Harvard University

## POSITIONS HELD

- 1972–1977      Assistant Professor/Assistant Astronomer  
                    Lick Observatory, University of California, Santa Cruz  
1977–1979      Associate Professor/Associate Astronomer  
                    Lick Observatory, University of California, Santa Cruz  
1979–            Professor/Astronomer  
                    Lick Observatory, University of California, Santa Cruz  
1996–            University Professor, University of California

## SABBATICAL LEAVE

- 1983–1984      Sabbatical leave in residence, University of California, Santa Cruz  
1990–1991      On leave at Bowie State University, Bowie, MD, and Johns Hopkins  
                    University, Baltimore, MD, serving with the Wide-Field Camera Team,  
                    *Hubble Space Telescope*  
1997              Sabbatical leave in residence, University of California, Santa Cruz  
                    (7/01/97–10/31/97)  
1999–2000      Sabbatical leave in residence, University of California, Santa Cruz  
                    (10/01/99–03/31/00)  
2004              Sabbatical leave in residence, University of California, Santa Cruz  
                    (10/01/04–12/31/04)  
2005              Sabbatical leave, Miller Visiting Professor, University of California, Berkeley  
                    (01/01/05–06/30/05)

## HONORS AND AWARDS

- 1964            Phi Beta Kappa Prize, Swarthmore College  
1966            Elected to Sigma Xi

1966	Elected to Phi Beta Kappa
1966–1971	National Science Foundation Graduate Fellow
1966–1971	Woodrow Wilson Graduate Fellow (declined)
1971	Carnegie Institution Pre-Doctoral Fellow
1977–1981	Alfred P. Sloan Foundation Fellow
1978	Bart J. Bok Prize, Harvard University
1982	Phillips Visitor, Haverford College
1984	<i>Science Digest</i> 100 Best American Scientists under 40
1985	Elected to National Academy of Sciences
1986	Heineman Prize, American Astronomical Society
1986	Honorary D.Sc., Swarthmore College
1986	Director's Distinguished Lecturer, Lawrence Livermore Laboratory
1987	Tetelman Fellow, Yale University
1987	Carnegie Lecturer, Carnegie Institution of Washington
1989	Elected to American Academy of Arts and Sciences
1990	Feshbach Lecturer, Physics Department, Massachusetts Institute of Technology
1990	Faculty Research Lecturer, University of California, Santa Cruz
1991	Darwin Lecturer, Royal Astronomical Society
1992	Marker Lecturer, Astronomy Department, Pennsylvania State University
1992	Bunyan Lecturer, Physics Department, Stanford University
1992	Tomkins Lecturer, Department of Biochemistry, University of California, San Francisco
1993	NASA Group Achievement Award, Wide-Field/Planetary Camera Team
1994	Mohler Lecturer, Physics Department, University of Michigan
1996	University Professor, University of California
1997	Antoinette de Vaucouleurs Medal, University of Texas
1997–	Fellow, California Council on Science and Technology
1997	Delphasus Lecturer, University of California, Santa Cruz
1997	Commencement Speaker, UCLA Natural Sciences Commencement
1997	Honorary D.Sc., Williams College
1998	Elected to California Academy of Sciences
1999	Millenium Lecturer, Hebrew University of Jerusalem
1999	Outstanding Faculty Award, Division of Natural Sciences, University of California, Santa Cruz
2001	Elected to American Philosophical Society
2003	<i>Discover Magazine</i> : 50 Best American Women Scientists
2003	Fellow, Institute for Advanced Studies, Hebrew University of Jerusalem
2004	Cecilia Payne-Gaposchkin Lecturer, Harvard College Observatory, Harvard University
2004	Halley Lecturer, Astronomy Department, Oxford University
2004	Nova Colloquium Speaker, Leiden University, Groningen University, the Netherlands
2005	Miller Visiting Professor, University of California, Berkeley
2005	Sackler Lecturer, Department of Physics, Princeton University
2005	Médaille de l'Institut d'Astrophysique de Paris
2006	Centennial Medal of the Harvard University Graduate School of Arts and Sciences

## EXTERNAL RESEARCH SUPPORT

2005–2007	Smithsonian Astrophysical Observatory (with D. Koo; Koo PI) “Deep Chandra Imaging of the Extended Groth Strip: The Co-Evolution of Black Holes and Galaxies” (G05–6141A)	\$149,013
2005–2007	Space Telescope Science Institute “The Stellar Mass Function of Disks and Bulges at $z = 1$ ” (HST–AR–10651.01–A)	\$79,642
2005–2006	National Science Foundation “Collaborative Research: The DEEP Survey—Emergence of the Modern Universe (with D. Koo, P. Guhathakurta, and J. Miller; Faber PI) (AST–0507483)	\$431,046
2004–2006	Space Telescope Science Institute “The Evolution and Assembly of Galactic Disks; Integrated Studies of Mass, Stars, and Gas in the Extended Groth Strip” (HST–GO–10134.19–A)	\$250,050
2003–2005	Space Telescope Science Institute “Black Holes in Big Galaxies with Small Bulges” (HST–GO–09776.03–A)	\$17,799
2002–2006	NASA Theory Grant (with J. Primack and G. Blumenthal; Primack PI) “Studying Galaxy Formation and Evolution with New Data, Models and Methods” (NAG5–12326)	\$329,670
2001–2003	Center for Adaptive Optics, NSF Subcontract “Hands-On AO Teaching Demos” (AST–98 76783; Project 61)	\$59,401
2000–2004	National Science Foundation (with D. Koo and P. Guhathakurta; Faber PI) “The DEEP Survey of the Distant Universe” (AST 00–71198)	\$1,299,915
2000–2001	Gemini Fellowship (R. Schiavon PI; Faber administrative PI) “The Ages and Abundances of Galaxies at Intermediate to High Redshift” (GF–1002–00)	\$34,000
1999–2003	Center for Adaptive Optics, NSF Subcontract “AO PSF Characterization” (AST–98 76783; Project 14)	\$546,265
1999–2002	NASA Theory Grant (with J. Primack, G. Blumenthal, and A. Klypin; Primack PI) “Testing Inflation and Dark Matter with New Data, Models, and Methods” (NAG5–8218)	\$665,901
1999–2000	Gemini Fellowship (R. Schiavon PI; Faber administrative PI) “Stellar Population Synthesis” (GF–1002–99)	\$42,000
1998–2003	<i>Hubble Space Telescope</i> General Observer Grant (with N. Vogt PI; Faber administrative PI) “Infrared Imaging of High-Redshift Galaxies” (GO7883.01–96A)	\$100,027
1997–2002	California Association for Research in Astronomy, Keck II Telescope Instrumentation Grant “The DEEP Imaging Multi-Object Spectrograph (DEIMOS)”	\$3,909,000
1997–2002	Hubble Fellowship (K. Gebhardt PI; Faber administrative PI) “Dynamics of Dense Stellar Systems” (HF–01090.01–97A)	\$209,806

1997–1999	<i>Hubble Space Telescope</i> General Observer Grant “Black Holes and the Centers of Galaxies” (GO7388.02–96A)	\$30,000
1997–2002	National Science Foundation Major Research Instrumentation Program (with J. Wilhelm, J. Primack, and others; Wilhelm PI) “University of California, Santa Cruz Scientific Visualization Center” (CDA 97–24237)	\$460,000
1996–1999	National Science Foundation (with G. Illingworth and D. Koo; Faber PI) “Spectroscopic Survey of the Distant Universe” (AST 95–29098)	\$461,974
1996–1998	<i>Hubble Space Telescope</i> General Observer Grant (with G. Illingworth and D. Koo; Koo PI) “Kinematics and Structure of HDF Galaxies” (AR 06337.2194A)	\$54,700
1995–1999	<i>Hubble Space Telescope</i> General Observer Grant “Black Holes and Cores of Early-Type Galaxies” (GO6099.01–94A)	\$38,697
1995–1998	NASA Theory Grant (with J. Primack and G. Blumenthal; Primack PI) “Testing Inflation and Dark Matter” (NAG5–3061)	\$300,000
1995–1998	Caltech Grant (NASA, Wide-Field Camera) “On-Orbit Research with the Wide-Field Planetary Camera Team”	\$500,793
1994–1996	California Association for Research in Astronomy, Keck II Telescope Instrumentation Grant (with G. Illingworth, H. Epps and J. Miller; Illingworth PI) “The DEEP Imaging Multi-Object Spectrograph (DEIMOS)”	\$3,298,000
1994–1995	Caltech Grant (NASA, Wide-Field Camera) “On-Orbit Research with the Wide-Field Planetary Camera Team”	\$147,200
1993–1994	<i>Hubble Space Telescope</i> General Observer Grant “Cores of Early-Type Galaxies” (GO 2600.01–B7A)	\$19,077
1993–1994	Caltech Grant (NASA, Wide-Field Camera) “On-Orbit Research with the Wide-Field Planetary Camera Team”	\$299,033
1992–1996	National Science Foundation Facilities and Instrumentation Grant (with G. Illingworth and J. Miller; Illingworth PI) “Development of the Keck Telescope DEEP Spectrograph” (ARI 92–14621)	\$1,790,000
1992–1993	<i>Hubble Space Telescope</i> General Observer Grant “Cores of Early-Type Galaxies”	\$123,968
1991–1993	Calspace Grant “Advances in Modeling the Spectra of Cool Stars”	\$22,049
1991–1992	Caltech Grant (NASA, Wide-Field Camera) “On-Orbit Research and Instrument Verification with the Wide-Field Planetary Camera Team”	\$117,756
1991–1992	<i>Hubble Space Telescope</i> General Observer Grant “Cores of Early-Type Galaxies”	\$130,914
1988–1992	National Science Foundation Grant “Old Stellar Populations and Cosmology”	\$133,058
1988–1991	Caltech Grant (NASA, Wide-Field Camera) “Extragalactic Astronomy”	\$343,781
1987	Caltech Grant (NASA, Wide-Field Camera) “Research for <i>Hubble Space Telescope</i> ”	\$40,126

1986	Caltech Grant (NASA, Wide-Field Camera) “Research for <i>Hubble Space Telescope</i> ”	\$43,472
1985	Caltech Grant (NASA, Wide-Field Camera) “Research for <i>Hubble Space Telescope</i> ”	\$29,999
1985	National Science Foundation Grant “University of California Astrophysics Workshop”	\$8,400
1985	NASA Grant “University of California Astrophysics Workshop”	\$8,429
1984–1985	International Ultraviolet Explorer Grant “Metallicity and the Level of the UV Rising Branch in Elliptical Galaxies”	\$19,130
1983–1986	National Science Foundation Grant “Structure and Composition of Early-Type Galaxies”	\$115,800
1983–1985	NASA Grant “Composition and Ages of Elliptical Galaxies”	\$77,750
1983–1984	NATO Grant “Elliptical Galaxy Survey”	\$5,000
1982	Calspace Grant “Non-Luminous Matter in the Local Galaxy”	\$5,890
1982	NATO Grant “Neutral H I Gas Distribution in Elliptical Galaxies”	\$3,000
1977–1978	National Science Foundation Grant “Chemical Abundances in Old Stellar Populations”	\$35,000
1977–1981	Alfred P. Sloan Foundation Fellowship	\$18,000
1976–1979	NASA Grant “Heavy-Element Abundances in Old Stellar Populations in Galaxies”	\$38,000
1976–1977	National Science Foundation Grant “Area Scanning with the Lick Image Dissector Scanner”	\$40,400
1974	National Science Foundation Grant	\$10,000

## BOOK REVIEWS

1. Structure and properties of nearby galaxies. S.M. Faber. *Sky and Telescope*, **58**, 454–465, 1979.

## BOOKS

1. *Nearly Normal Galaxies: From the Planck Time to the Present*. Proceedings of the Eighth Santa Cruz Summer Workshop in Astronomy and Astrophysics, ed. S.M. Faber (New York: Springer-Verlag), 1987. Reviewed in *The Observatory* (**108**, 185, 1988), *Journal of the British Astronomical Association* (**98**, 122, 1988), *Sky and Telescope* (**75**, 160, 1988), and *Space Science Reviews* (**53**, 166, 1990).

## PUBLICATIONS

1. Parallax and mass ratio of the visual binary Hu 1176 from photographs taken with the 24-inch Sproul refractor. P. van de Kamp and S.M. Faber. *AJ*, **71**, 524–526, 1966.
2. On color effects in astrometry. S.M. Faber. *PASP*, **79**, 611–614, 1967.
3. Faint blue objects in the Virgo cluster region. V.C. Rubin, S.M. Faber and F.C. Bertiau. *AJ*, **72**, 59–63 with plates from 109–123, 1967.
4. The Ba II star  $\xi$  Cygni. F.R. Chromeley, S.M. Faber, A. Wood and I.J. Danziger. *ApJ*, **158**, 599–606, 1969.
5. Rotational velocities of evolved A and F stars. S.M. Faber and I.J. Danziger. In: *Stellar Rotation, IAU Colloquium No. 4*, ed. A. Slettebak (Dordrecht: Reidel), 39–47, 1970.
6. Rotation of evolving A and F stars. I.J. Danziger and S.M. Faber. *Astron. & Ap.*, **18**, 428–443, 1972. Also published as: Rotation of evolving A and F stars (Danziger+ 1972). *VizieR Online Data Catalog*, **3022**, 1996.
7. Quadratic programming applied to the problem of galaxy population synthesis. S.M. Faber. *Astron. & Ap.*, **20**, 361–374, 1972.
8. Tidal origin of elliptical galaxies of high surface brightness. S.M. Faber. *ApJ*, **179**, 423–426, 1973.
9. Variations in spectral-energy distributions and absorption-line strengths among elliptical galaxies. S.M. Faber. *ApJ*, **179**, 731–754, 1973.
10. Ten-color stellar photometry. S.M. Faber. *Astron. & Ap. Suppl.*, **10**, 201–216, 1973.
11. Velocity dispersions and mass-to-light ratios for elliptical galaxies. S.M. Faber and R.E. Jackson. *AJ*, **204**, 668–683, 1976. Also published as: *Lick Observatory Bulletin*, **714**, 1976.
12. H I in early-type galaxies. I. Observations. J.S. Gallagher, S.M. Faber and B. Balick. *ApJ*, **202**, 7–21, 1975.
13. H I in early-type galaxies. II. Mass loss and galactic winds. S.M. Faber and J.S. Gallagher. *ApJ*, **204**, 365–378, 1976. Also published as: *Lick Observatory Bulletin*, **709**, 1976.
14. A rediscussion of the local space density of M dwarf stars. S.M. Faber, D. Burstein, B.M. Tinsley and I.R. King. *AJ*, **81**, 45–52, 1977.
15. H I in early-type galaxies. III. Observations of 50 galaxies. B. Balick, S.M. Faber and J.S. Gallagher. *ApJ*, **209**, 710–715, 1976. Also published as: *Lick Observatory Bulletin*, **726**, 1976.
16. Velocity dispersions for X-ray clusters of galaxies. S.M. Faber and A. Dressler. *ApJ*, **210**, L65–L67, 1976. Also published as: *Lick Observatory Bulletin*, **743**, 1976.
17. Approximate MK spectral classification of A and F stars based on *ubvy* and H $\beta$  photometry. S.M. Faber. *PASP*, **89**, 23–28, 1977.
18. The neutral hydrogen content, stellar rotation curve, and mass-to-light ratio of NGC 4594, the “Sombrero” galaxy. S.M. Faber, B. Balick, J.S. Gallagher and G.R. Knapp. *ApJ*, **214**, 383–389, 1977.

19. Radial velocities for galaxies in 11 clusters. S.M. Faber and A. Dressler. *AJ*, **82**, 187–192, 1977. Also published as: *Lick Observatory Bulletin*, **753**, 1977.
20. Spectrum of the halo of the cD galaxy in Abell 401. S.M. Faber, D. Burstein and A. Dressler. *AJ*, **82**, 941–946, 1977. Also published as: *Lick Observatory Bulletin*, **772**, 1977.
21. The chemical composition of old stellar populations. S.M. Faber. In: *The Evolution of Galaxies and Stellar Populations*, eds. B. Tinsley and R. Larson (New Haven: Yale University Printing Service), 157–198, 1977.
22. Neutral hydrogen in the normal elliptical galaxy NGC 4278. J.S. Gallagher, G.R. Knapp, S.M. Faber and B. Balick. *ApJ*, **215**, 463–473, 1977.
23. H I observations of 40 S0 and elliptical galaxies. G.R. Knapp, J.S. Gallagher, S.M. Faber and B. Balick. *AJ*, **82**, 106–112, 1977.
24. H I in the elliptical galaxy NGC 1052. G.R. Knapp, J.S. Gallagher and S.M. Faber. *AJ*, **83**, 139–143, 1978. Also published as: *Lick Observatory Bulletin*, **784**, 1978.
25. Neutral hydrogen in the elliptical galaxy NGC 4636. G.R. Knapp, S.M. Faber and J.S. Gallagher. *AJ*, **83**, 11–12, 1978.
26. Masses and mass-to-light ratios of galaxies. S.M. Faber and J.S. Gallagher. *Ann. Rev. Astron. Astrophys.*, **17**, 135–187, 1979.
27. Spectrometer, Definition of. S.M. Faber. In: *World Book Encyclopedia*, 1979.
28. Possible M dwarf enrichment in the semistellar nucleus of M31. S.M. Faber and H.B. French. *ApJ*, **235**, 405–412, 1980. Also published as: *Lick Observatory Bulletin*, **823**, 1980.
29. B-V color profiles of the luminous elliptical galaxies NGC 4472 and NGC 5846 and the cD galaxy NGC 6166. J.S. Gallagher, S.M. Faber and D. Burstein. *ApJ*, **235**, 743–748, 1980. (N62)
30. The structure of galactic nuclei: Recent observations. S.M. Faber. In: *Highlights of Astronomy, Volume 5*, Proceedings of the 17th General Assembly of the International Astronomical Union, Montreal, Canada, August 14–24, 1979, ed. P.A. Wayman (Dordrecht: Reidel), 135–142, 1980. (N100)
31. The ultraviolet continua of the nuclei of M31 and M81. C.C. Wu, S.M. Faber, J.S. Gallagher, M. Peck and B.M. Tinsley. *ApJ*, **237**, 290–302, 1980. (N131)
32. Sky glow at Lick Observatory. S.M. Faber. *Lighting Design and Application*, **10**, 18–22, 1980. (N102)
33. The scientific case for a 10-meter telescope. S.M. Faber. In: *Optical and Infrared Telescopes of the 1990's* (Tucson: Kitt Peak National Observatory), 304–328, 1980. (N88)
34. H I synthesis observations of the elliptical galaxy NGC 4278. E. Raimond, S.M. Faber, J.S. Gallagher and G. R. Knapp. *ApJ*, **246**, 708–721, 1981. (N103)
35. The metallicities, velocity dispersions and true shapes of elliptical galaxies. R. Terlevich, R.L. Davies, S.M. Faber and D. Burstein. *MNRAS*, **196**, 381–395, 1981. (N87)
36. Obituary for Beatrice Tinsley. S.M. Faber. *Physics Today*, **34**, 110–112, 1981. (N134)

37. H I observations of strongly interacting galaxies. J.S. Gallagher, G.R. Knapp and S.M. Faber. *AJ*, **86**, 1781–1790, 1981. (N139)
38. Chapter 4: Extragalactic astronomy. S.M. Faber. In: *Challenges to Astronomy and Astrophysics: Working Documents of the Astronomy Survey Committee*, ed. P. Blanchard (Washington, DC: National Academy of Sciences/National Research Council), 177–222, 1981. (N109)
39. Line-strength anomalies in the integrated spectra of M31 globular clusters. D. Burstein, S.M. Faber, C.M. Gaskell and N. Krumm. In: *Astrophysical Parameters For Globular Clusters, I.A.U. Colloquium No. 68*, eds. A.G. Davis Philip and D.S. Haynes (Schenectady: L. Davis Press), 441–450, 1981.
40. Galaxy formation via hierarchical clustering and dissipation: The structure of disk systems. S.M. Faber. In: *Astrophysical Cosmology*, Proceedings of the Vatican Study Week on Cosmology and Fundamental Physics, Vatican City State, September 28–October 2, 1981, eds. H.A. Bruck, G.V. Coyne and M.S. Longair (Vatican City: Pontificia Academia Scientiarum), 191–194, 1982.
41. Galaxy formation via hierarchical clustering and dissipation: The structure of spheroids. S.M. Faber. In: *Astrophysical Cosmology*, Proceedings of the Vatican Study Week on Cosmology and Fundamental Physics, Vatican City State, September 28–October 2, 1981, eds. H.A. Bruck, G.V. Coyne and M.S. Longair (Vatican City: Pontificia Academia Scientiarum), 219–231, 1983.
42. Is there nonluminous matter in dwarf spheroidal galaxies? S.M. Faber and D.N.C. Lin. *ApJ*, **266**, L17–L20, 1983.
43. Some implications of nonluminous matter in dwarf spheroidal galaxies. D.N.C. Lin and S.M. Faber. *ApJ*, **266**, L21–L25, 1983.
44. Palomar loses a round in light pollution battle. R. Brucato, S. Faber, C. Sagan and D. Crawford. *Sky and Telescope*, **66**, 113, 1983.
45. Large optical telescopes: New views into space and time. S.M. Faber. *Ann. N.Y. Acad. Sci.*, **422**, 171–179, 1983.
46. Dark matter in dwarf spheroids. M. Aaronson, S.M. Faber and D.N.C. Lin. *Science News*, **123**, 184–185, 1983.
47. The stellar content of elliptical nuclei. S.M. Faber. In: *Highlights of Astronomy, Volume 6*, Proceedings of the 18th General Assembly of the International Astronomical Union, Patras, Greece, August 17–26, 1982, ed. R.A. West (Dordrecht: Reidel), 165–171, 1983.
48. Galaxy formation and cosmology. In: *Large-Scale Structure of the Universe, Cosmology and Fundamental Physics*, Proceedings of the 1st ESO/CERN Symposium held 21–25 November, 1983 at CERN, Geneva, eds. G. Setti and L. van Hove (Garching: European Southern Observatory), 187–203, 1983.
49. Formation of galaxies and large-scale structure with cold dark matter. G.R. Blumenthal, S.M. Faber, J.R. Primack and M.J. Rees. *Nature*, **311**, 517–525, 1984. (C436). Reprinted in *The Early Universe: Reprints, Frontiers in Physics*, eds. E.W. Kolb and M.S. Turner (Reading: Addison-Wesley), 617–625, 1988.

50. The distribution of neutral hydrogen in the Sombrero Galaxy, NGC 4594. E. Bajaja, G. van der Burg, S.M. Faber, J.S. Gallagher, G.R. Knapp and W.W. Shane. *Astron. & Ap.*, **141**, 309–317, 1984.
51. Old stellar populations. I. A spectroscopic comparison of galactic globular clusters, M31 globular clusters, and elliptical galaxies. D. Burstein, S.M. Faber, C.M. Gaskell and N. Krumm. *ApJ*, **287**, 586–609, 1984. (B986)
52. Old stellar populations. II. An analysis of K-giant spectra. S.M. Faber, E.D. Friel, D. Burstein and C.M. Gaskell. *ApJS*, **57**, 711–741, 1985. (B999)
53. High-resolution near-infrared spectra of normal and super-metal-rich K giants. H.E. Bond, D. Burstein, S.M. Faber and R.E. Luck. *AJ*, **90**, 1349–1353, 1985. (B1009)
54. Masses and mass-to-light ratios of galaxies. S.M. Faber and J.S. Gallagher. *Ann. Rev. Astron. Ap.*, **17**, 135–187, 1979. “Citation Classic” in *Current Contents*, **25**, 44, 1985.
55. Contraction of dark matter galactic halos due to baryonic infall. G.R. Blumenthal, S.M. Faber, R. Flores and J.R. Primack. *ApJ*, **301**, 27–34, 1986.
56. Old stellar populations. III. The metallicities of M5, M71, and M67. D. Burstein, S.M. Faber and J. Gonzalez. *AJ*, **91**, 1130–1139, 1986.
57. The distribution and kinematics of H I in the active elliptical galaxy NGC 1052. J.H. van Gorkom, G.R. Knapp, E. Raimond, S.M. Faber and J.S. Gallagher. *AJ*, **91**, 791–807, 1986.
58. Elliptical galaxies and non-uniformities in the Hubble flow. D. Burstein, R.L. Davies, A. Dressler, S.M. Faber, D. Lynden-Bell, R. Terlevich and G. Wegner. In: *Galaxy Distances and Deviations from Universal Expansion*, Proceedings of the NATO Advanced Research Workshop, Kona, HI, Jan. 13–17, 1986, ed. B. Madore (Dordrecht: Reidel), 123–130, 1986.
59. Introduction to *My Daughter Beatrice*, by Edward Hill (New York: American Physical Society), i, 1986.
60. Global scaling relations for elliptical galaxies and implications for formation. S.M. Faber, D. Burstein, R.L. Davies, A. Dressler, D. Lynden-Bell, R. Terlevich and G. Wegner. In: *Nearly Normal Galaxies: From the Planck Time to the Present*, Proceedings of the Eighth Santa Cruz Summer Workshop in Astronomy and Astrophysics, ed. S. M. Faber (New York: Springer Verlag), 175–183, 1987.
61. Dark matter: Key issues. S.M. Faber. In: *Dark Matter in the Universe, IAU Symposium No. 117*, eds. J. Kormendy and G. Knapp (Dordrecht: Reidel), 1–16, 1987.
62. Spectroscopy and photometry of elliptical galaxies. I. A new distance estimator. A. Dressler, D. Lynden-Bell, D. Burstein, R. Davies, S.M. Faber, G. Wegner and R. Terlevich. *ApJ*, **313**, 42–58, 1987.
63. Non-uniformities in the Hubble Flow: Results from a survey of elliptical galaxies. R.L. Davies, D. Burstein, A. Dressler, S.M. Faber, D., Lynden-Bell, R. Terlevich and G. Wegner. In: *Observational Cosmology, IAU Symposium No. 124*, eds. A. Hewitt, G. Burbidge and L.Z. Fang (Dordrecht: Reidel), 223–227, 1987.

64. Ultraviolet energy distributions of 32 early type galaxies. F. Bertola, D. Burstein, L.M. Buson, S.M. Faber and T.R. Lauer. In: *Structure and Dynamics of Elliptical Galaxies, IAU Symposium No. 127*, ed. T. de Zeeuw (Dordrecht: Reidel), 439, 1987.
65. Spectroscopy and photometry of elliptical galaxies. II. The spectroscopic parameters. R.L. Davies, D. Burstein, A. Dressler, S.M. Faber, D. Lynden-Bell, R. Terlevich and G. Wegner. *ApJS*, **65**, 581–600, 1987.
66. Spectroscopy and photometry of elliptical galaxies. III. UBV aperture photometry, CCD photometry, and magnitude-related parameters. D. Burstein, R.L. Davies, A. Dressler, S.M. Faber, R.P.S. Stone, D. Lynden-Bell, R. Terlevich and G. Wegner. *ApJS*, **64**, 601–642, 1987.
67. Spectroscopy and photometry of elliptical galaxies: A large-scale streaming motion in the local universe. A. Dressler, S.M. Faber, D. Burstein, R.L. Davies, D. Lynden-Bell, R. Terlevich and G. Wegner. *ApJ*, **313**, L37–L42, 1987. Reprinted in *The Early Universe: Reprints, Frontiers in Physics*, eds. E.W. Kolb and M.S. Turner (Reading: Addison-Wesley), 171–176, 1988.
68. Growth of structure in the universe. A. Dekel, S.M. Faber and M. Davis. In: *From the Planck Scale to the Weak Scale: Toward a Theory of the Universe*. Proceedings of the Theoretical Advanced Study Institute in Elementary Particle Physics, University of California, Santa Cruz, 1986, Volume 2, ed. H. Haber (Singapore: World Scientific Publishing Co.), 787–944, 1987.
69. Spectroscopy and photometry of elliptical galaxies. V. Galaxy streaming towards the new supergalactic centre. D. Lynden-Bell, S.M. Faber, D. Burstein, R.L. Davies, A. Dressler, R. Terlevich and G. Wegner. *ApJ*, **326**, 19–49, 1988.
70. The far-ultraviolet spectra of early-type galaxies. D. Burstein, F. Bertola, L. Buson, S.M. Faber and T. Lauer. *ApJ*, **328**, 440–462, 1988.
71. Pregalactic formation of globular clusters in cold dark matter. E.I. Rosenblatt, S.M. Faber and G. Blumenthal. *ApJ*, **330**, 191–200, 1988.
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## ABSTRACTS AND POSTER PAPERS

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33. The *Hubble Space Telescope* Key Project to measure H<sub>0</sub>. J.R. Mould, S.M. Hughes, B.F. Madore, S.M. Faber, G.D. Illingworth, W.L. Freedman, M.G. Lee, R. Hill, L. Ferrarese, H.C. Ford, J.A. Graham, J.E. Gunn, J.G. Hoessel, J.P. Huchra, R.C. Kennicutt, A. Turner and P.B. Stetson. *BAAS*, **25**, 915, 1993.
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36. Age and metallicity of elliptical galaxies. J.J. Gonzalez, S.M. Faber and G. Worthey. *BAAS*, **25**, 1355, 1993.
37. Invited lecture: Galactic nuclei through the “lens” of *HST*. S.M. Faber. *BAAS*, **24**, 1443, 1993.
38. SBF magnitudes as tools for stellar population studies. G. Worthey and S.M. Faber. *BAAS*, **25**, 1453, 1993.
39. *Hubble Space Telescope* observations of M31 globular clusters. E.A. Ajhar, T.R. Lauer, C.R. Lynds, E.J. O’Neil et al. *BAAS*, **26**, 938, 1994.
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43. Structural parameters of M31 globular clusters from WFPC2 imaging. C.T. Grillmair, S.M. Faber, E.A. Ajhar, T.R. Lauer, C.R. Lynds, E.J. O'Neil, W.A. Baum, J.A. Holtzman and members of the WFPC Team. *BAAS*, **26**, 1434, 1994.
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47. Globular clusters in the Coma elliptical IC 4051. W.A. Baum, M. Hammergren, E.J. Groth, S.M. Faber, C.J. Grillmair, E.A. Ajhar and members of the WFPC Team. *BAAS*, **27**, 1407, 1995.
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49. *Hubble Space Telescope* observations of M32: The color-magnitude diagram. C.J. Grillmair, T.R. Lauer, G. Worthey, S.M. Faber, W.L. Freedman, B.F. Madore, E.A. Ajhar, J.A. Holtzman, P.B. Stetson and members of the WFPC Team. *BAAS*, **28**, 840, 1996.
50. Distance to the Coma Cluster and a value for  $H_0$ . W.A. Baum, M. Hammergren, B. Thomsen, E.J. Groth, S.M. Faber, C.J. Grillmair and E.A. Ajhar. *BAAS*, **28**, 1288, 1996.
51. Morphological peculiarity indices for distant and local galaxies. K.L. Wu, S.M. Faber and T.R. Lauer. *BAAS*, **28**, 1412, 1996.
52. Compact galaxies in the Hubble Deep Field. A.C. Phillips, R. Guzman, J. Gallego, J.D. Lowenthal, N.P. Vogt, D. Koo, S.M. Faber and G. Illingworth. *BAAS*, **28**, 1413, 1996.
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61. The maximum asymptotic giant branch luminosity of an old metal-rich stellar population from NICMOS observations of M32. G. Worthey, C.J. Grillmair, T.R. Lauer and S.M. Faber. *BAAS*, **32**, 1592, 2000.
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64. DEIMOS: A powerful new spectrograph at Keck II. A.C. Phillips, S. Faber, R. Kibrick, V. Wallace and the DEIMOS Team. *BAAS*, **34**, 1320, 2002.
65. Anisoplanatism within the isoplanatic patch. J. Christou, E. Steinbring, S.M. Faber, D. Gavel, J. Patience and E. Gates. *BAAS*, **34**, 1257, 2002.
66. A comparison of estimates of the black hole mass in the Maser Galaxy NGC 4258. C. Siopis, M.C. Aller, R. Bender, G. Bower, A. Dressler, S.M. Faber, A.V. Filippenko, K. Gebhardt, R. Green, C. Grillmair, L.C. Ho, J. Kormendy, T.R. Lauer, J. Magorrian, J. Pinkney, D. Richstone and S. Tremaine. *BAAS*, **34**, 1219, 2002.
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68. Team Keck Treasury Redshift Survey. R.W. Goodrich, P. Amico, F. Chaffee, A. Conrad, S. Kwok, D. Le Mignant, J. Lyke, J. Mader, H.D. Tran, G.D. Wirth, C.N.A. Willmer, D.C. Koo, S.M. Faber, M. Davis, L.L. Cowie, A.J. Barger, P. Capak, E. Hu and A. Songaila. *BAAS*, **35**, #119–08, 2003.
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71. Galaxy kinematics in the DEEP2 Survey: Evolution in the Tully-Fisher relation to  $z > 1$ . B.J. Weiner, C.N.A. Willmer, S. Kassin, S.M. Faber and the DEEP2 Collaboration. *BAAS*, **37**, 1299, 2005.
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## TECHNICAL REPORTS

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2. Comments on the effects of increased diffuse sky brightness on faint object astronomical observations. J.S. Gallagher and S.M. Faber. In: *Workshop on Satellite Power Systems Effect on Optical and Radio Astronomy*, DOE/NASA Conference Series, eds. P.A. Esktron and G.M. Stokes, 7905143, 33–38, 1980. (N101)
3. Comments on the technical report on the conversion of streetlights to sodium vapor. S.M. Faber. In: *Conversion of the City of Sunnyvale Streetlighting System to Sodium Vapor* (Sacramento: California Energy Commission), **Vol. 1**, Appendix I, 1980.
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5. Matching representative instruments and detectors to the Ten-Meter Telescope: Specific examples. S.M. Faber. *TMT Technical Report No. 62*, Lawrence Berkeley Laboratory, 1983.
6. The contribution of focus errors to the optical error budget. S.M. Faber. *TMT Technical Report No. 56*, Lawrence Berkeley Laboratory, 1983.
7. Estimated image diameters at  $10\mu$ . J.E. Nelson and S.M. Faber. *TMT Technical Report No. 57*, Lawrence Berkeley Laboratory, 1983.
8. Formulae relevant to the optical performance. S.M. Faber. *TMT Technical Report No. 55*, Lawrence Berkeley Laboratory, 1983.
9. A summary of UC Ten-Meter Telescope specifications. J.E. Nelson, T. Mast, S.M. Faber and G. Gabor. *TMT Technical Note No. 57*, Lawrence Berkeley Laboratory, 1983.
10. The design of the Keck observatory and telescope (Ten-Meter Telescope). *Keck Observatory Report No. 90*, eds. J.E. Nelson, T. Mast and S.M. Faber, January 1985.
11. Metallicity and the level of the ultraviolet rising branch in elliptical galaxies. S.M. Faber. Final Report, 1 Jul. 1984–31 Mar. 1986, Lick Observatory, Santa Cruz, CA, 1986.
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13. Report on oxygen testing at Mauna Kea. S.M. Faber, J. Nelson and G. Illingworth. *Keck Observatory Report No. 186*, 1988.
14. Wide-Field Camera science verification report. Ed. S.M. Faber with members of the WFPC Team (Baltimore: Space Telescope Science Institute), 1992.
15. DEIMOS preliminary design report. Members of the DEIMOS Spectrograph Team. Ed. S.M. Faber (Santa Cruz: UCO/Lick Observatory), 1994.
16. DEIMOS critical design report. Members of the DEIMOS Spectrograph Team. Eds. S.M. Faber and D. Cowley (Santa Cruz: UCO/Lick Observatory), 1995.

17. The design and assembly of camera lens cells for fluid couplants using elastomeric lens mounts. S.M. Faber, D. Hilyard, E. James and T. Pfister (Santa Cruz: UCO/Lick Observatory), 1996.
18. DEIMOS camera critical design report. S.M. Faber, T. Mast and D. Cowley (Santa Cruz: UCO/Lick Observatory), 1997.
19. DEIMOS, a wide-field faint-object spectrograph. D.J. Cowley, S.M. Faber, D.F. Hilyard, E. James and J. Osborne. *SPIE*, **2871**, 1107–1115, 1997.
20. Design update of DEIMOS: A wide-field faint-object spectrograph. E.C. James, D.J. Cowley, S.M. Faber, D.F. Hilyard, and J. Osborne. *SPIE*, **3355**, 70–80, 1998.
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22. DEIMOS camera assembly. T. Mast, S.M. Faber, V. Wallace, J. Lewis, and D. Hilyard. *SPIE*, **3786**, 499–505, 1999.
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25. A comparison of open versus closed loop flexure compensation systems for two Keck optical imaging spectrographs: ESI and DEIMOS. R.I. Kibrick, S.M. Faber, A.C. Phillips, M. McVeigh, D. Cowley, M. Radovan, K. Gilmore, C. Wright, D. Tucker, D. Clarke and S. Allen. *SPIE*, **4841**, 1385–1398, 2003.
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28. DEIMOS rotation control system software. W.T.S. Deich, R.I. Kibrick, S.M. Faber, D. Clarke and V. Wallace. *SPIE*, **4848**, 463–473, 2003.
29. Science objectives and early results of the DEEP2 Redshift Survey. M. Davis, S.M. Faber, J. Newman, A.C. Phillips, R.S. Ellis, C.C. Steidel, C. Conselice, A.L. Coil, D.P. Finkbeiner, D.C. Koo, P. Guhathakurta, B. Weiner, R. Schiavon, C. Willmer, N. Kaiser, G.A. Luppino, G. Wirth, A. Connolly, P. Eisenhardt, M. Cooper and B. Gerke. *SPIE*, **4834**, 161–172, 2003.
30. The DEIMOS flexure compensation system: Overview and operational results. R.I. Kibrick, S.L. Allen, D.A. Clarke, S.M. Faber, A.C. Phillips and G.D. Wirth. *SPIE*, **5492**, 799–810, 2004.

## UNIVERSITY SERVICE

### Administrative appointments

- 2005–2006 Chair, Department of Astronomy and Astrophysics  
2005–2006 Chair, Search Committee, UCO/Lick Director  
2004 Member, UC Provost's Faculty Search Committee  
2003–2004 Member, University Committee on Committees  
2003 Member, UC President Faculty Search Committee  
2002– Member, Astronomy Board Curriculum Committee  
1999– Chair, Halliday Lecture Committee, Astronomy Department  
1998–1999 Member, Search Committee for Astronomy and Astrophysics Department, UC Santa Cruz  
1996–1998 Member, Search Committee for Applied Math Program, UC Santa Cruz  
1996–1998 Member, Lick Observatory Light Pollution Committee  
1996 Member, Chancellor's Search Committee, University of California, Santa Cruz  
1994 Member, Visiting Committee, Santa Cruz Institute for Particle Physics  
1992–1997 Librarian, Lick Observatory Reading Room  
1992–1993 Member, Chancellor's Diversity Task Force  
1992 Member, Teaching Peer Review Committee, Astronomy Board  
1992 Member, Chancellor's Junior Faculty Fellowship Committee  
1991 Member, Director's Search Committee, UCO/Lick Observatory  
1991–1992 Member, Qualifying Exam Committee for Astronomy Board  
1990 Member, Chancellor's 2005 Advisory Committee on Long-Range Campus Plan  
1989 Member, Chancellor's Advisory Committee on Undergraduate Awards  
1985–1989 Chair, Qualifying Exam Committee for Astronomy Board  
1985–1987 Lick Observatory Telescope Time Assignment Committee  
1985 Chair, Organizing Committee for University of California, Santa Cruz Summer Astrophysics Workshop on Galaxies held July 1986  
1984–1986 Librarian, Lick Observatory Reading Room  
1984 Chair, Scientific Organizing Committee for Astronomical Society of the Pacific meeting held at University of California Santa Cruz, July 1984  
1983–1989 Chair, Lick Observatory Light Pollution Committee  
1983–1984 Member, Lick Observatory Advisory Committee  
1982–1984 Member, Qualifying Exam Committee for Astronomy Board  
1982–1984 Co-chair, Lick Observatory Colloquium Committee  
1978–1980 Member, Graduate Support Committee, Astronomy Board  
1978–1980 Lick Observatory Liaison, San Jose Municipal Government  
1978 Member, Intercampus Committee on Large Telescope  
1978 Member, Admissions Committee Astronomy Board  
1976–1977 Chairperson, Lick Observatory 60-inch Telescope Committee  
1975–1979 Editor, Lick Observatory Newsletter  
1975–1977 Librarian, Lick Observatory Reading Room  
1975–1976 Member, Lick Observatory Telescope Scheduling Committee  
1975 Member, Director's Time Assignment Committee, Lick Observatory  
1975 Co-chair, Astronomy Colloquium Committee  
1974–1975 Member, Admissions Committee Astronomy Board  
1974 Member, Colloquium Committee, Astronomy Board

- 1973–1979 Graduate Representative, Astronomy Board  
 1973 Chair, Admissions Committee, Astronomy Board  
 1973 Librarian, Lick Observatory Reading Room

### **Academic Senate committees**

- 2004–2006 Chair, Faculty Research Lecturer Committee  
 2002–2004 Chair, Committee on Committees  
 2000–2002 Member, Committee on Committees  
 1994 Member, 2 Ad Hoc Personnel Committees  
 1993 Member, 3 Ad Hoc Personnel Committees  
 1992 Member, 2 Ad Hoc Personnel Committees  
 1991–1994 Member, Career Advisory Committee  
 1989 Member, Ad Hoc Personnel Committee  
 1985 Member, Ad Hoc Personnel Committee  
 1984–1985 Member, Career Advisory Committee  
 1982 Member, Privilege and Tenure Committee  
 1979 Member, Ad Hoc Personnel Review Committee for Academic Chair  
 1978–1979 Member, Library Committee  
 1973–1976 Member, Graduate Council

### **Other University service**

- 2004 Member, KIRMOS Spectrograph Preliminary Design Review Panel, for Keck Observatory  
 1999–2001 University of California, Santa Cruz Site Coordinator, Center for Adaptive Optics  
 1999–2002 Faculty liaison, Center for Adaptive Optics building design and construction  
 1997– PI, DEIMOS Spectrograph Team for Keck Observatory  
 1994–1997 Co-PI, DEIMOS Spectrograph Team for Keck Observatory  
 1992–1994 Member, University of California Observatories Advisory Committee  
 1991–1993 Member, then Co-chair, Science Steering Committee, Keck Observatory  
 1989–1991 Member, University of California Observatories Optical-Infrared Facilities Committee  
 1988 Chair, Critical Design Review, Keck Alignment Camera  
 1987–1990 Keck Semi-Annual Review Committee  
 1987–1990 Co-chair, Science Steering Committee, Keck Observatory  
 1987–1990 Member, Keck Operations Working Group  
 1986–1990 Member, Mauna Kea Site Preservation Committee  
 1986–1989 Member, University of California Astronomy Advisory Committee  
 1986–1987 Chair, Preliminary Design Review, Keck Alignment Camera  
 1986 Member, Science Steering Committee, Keck Observatory  
 1985–1986 Chair, Telescope Instruments Committee, Keck Observatory  
 1984 Coordinator, Optical Design for Ten Meter Telescope  
 1983–1984 Member, Astronomy Advisory Committee, Ten Meter Telescope  
 1980–1982 Member, Ten Meter Telescope Committee  
 1980 Member, Technical Subcommittee for Ten Meter Telescope  
 1979–1980 Chair, Science for the Ten Meter Telescope Committee  
 1974 Member, Vice Chancellor's Ad Hoc Committee on the Science Library

## PROFESSIONAL ACTIVITIES

### Consultative or other service to civic, state, or national governmental agencies

- 2005– Chair, Compensation and Audit Committee, Annual Reviews, Inc.
- 2005– Chair, Nominating Committee, Board of Overseers, Fermi National Accelerator Laboratory
- 2004–2005 Member, *Hubble Space Telescope* Time Assignment, Extragalactic Panel
- 2004–2005 Member, National Academy of Sciences, Committee on Elementary Particle Physics in the 21<sup>st</sup> Century
- 2004 Member, National Academy of Sciences, Panel on Options to Extend the Life of the *Hubble Space Telescope*
- 2004 Member, Search Committee for the Director, Fermi National Accelerator Laboratory
- 2004 Member, Visiting Committee, Geophysical Laboratory, Carnegie Institution of Washington
- 2004–2007 Chair, National Academy of Sciences, Astronomy Section
- 2003–2004 Co-organizer (with A. Dekel) of The Origin of Galaxies, a Winter School at the Institute for Advanced Studies, the Hebrew University of Jerusalem, December 29, 2003–January 8, 2004.
- 2003–2004 Member, Class I Temporary Nominating Group, National Academy of Sciences
- 2003–2004 Fellow, Institute for Advanced Studies, Hebrew University of Jerusalem
- 2003–2004 Member, National Academy of Sciences Class I Membership Committee
- 2003 Member, *Chandra X-ray Observatory* Time Assignment Committee
- 2002 Panel organizer, NAS Symposium, “Cosmology Beyond the Standard Paradigm”
- 2002–2006 Member, Fermilab Board of Overseers
- 2002–2004 Member, *Hubble Space Telescope* Treasury Advisory Committee
- 2002– Vice Chair, Board of Directors, Annual Reviews, Inc.
- 2002 Vice Chair, *Hubble Space Telescope* TAC Review Committee
- 2001 Member, National Research Council Committee on Research in Astronomy and Astrophysics (COMRAA)
- 2001– Member, National Academy of Sciences Class I Membership Committee
- 2000–2001 Member and co-author, NAS Briefing Report, “From Quarks to the Cosmos”
- 2000– Chair, Employee Affairs Committee, Carnegie Institution of Washington
- 2000– Member, Scripps Institution of Oceanography Council
- 1999–2000 Member, Visiting Committee, Caltech Division of Physics, Mathematics, and Astronomy
- 1999 Reviewer, National Research Council Report on Astronomy Funding (Huchra Report)
- 1998–2001 Member, National Medal of Science Selection Committee
- 1998–2000 Member, Plumian Professor Chair Selection Committee, Institute of Astronomy, Cambridge University
- 1998–1999 Referee, Israeli National Science Foundation
- 1997–1999 Member, Waterman Award Committee, U.S. National Science Foundation
- 1997 Referee, Research Corporation

- 1996–1998 Chair, Search Committee for Director, Geophysical Laboratory of Carnegie Institution of Washington
- 1996– Member, Executive Committee of the Board, Annual Reviews, Inc.
- 1996–2006 Member, Board of Directors, SETI Institute
- 1995 Referee, Israeli National Science Foundation
- 1995 Member, Advisory Committee to the Director, Hubble Deep Field, Space Telescope Science Institute
- 1994 Member, Proposal Review Panel for the Advanced Camera, *Hubble Space Telescope*
- 1994 Member, Princeton Observatories Visiting Committee
- 1994 Member, Carnegie Observatories Visiting Committee
- 1994– Member, Editorial Affairs Committee, Annual Reviews, Inc.
- 1993–1995 Member, Advisory Committee on the Future of the Smithsonian Institution
- 1993 Member, President's Advisory Panel, National Academy of Sciences
- 1993 Vice Chair, Briefing Report on Cosmology, National Academy of Sciences
- 1993–1995 Member, Committee on Astronomy and Astrophysics, National Academy of Sciences
- 1993–1994 Member, Advisory Board of California Math/Science Education Initiative
- 1991–1992 Member, Organizing Committee, National Academy of Sciences, Cosmology Symposium
- 1991 Chair, Watson Award Committee, National Academy of Sciences
- 1991 Referee, Director's Discretionary Proposal, Jet Propulsion Lab
- 1990–1992 Member, *Hubble Space Telescope* Users Committee
- 1990 Member, *Hubble Space Telescope* GTO Policy Advisory Panel
- 1990 Member, *Hubble Space Telescope* Strategy Panel (to fix spherical aberration)
- 1989– Member, Board of Directors, Annual Reviews, Inc.
- 1989 Member, Search Committee for Director, Carnegie Observatories
- 1989 Member, Advisory Committee on Staff Review Policy, Carnegie Observatories
- 1988 Member, Ad Hoc National Science Foundation Review Panel on Cosmology Initiative
- 1988–1994 Member, California Council on Science and Technology
- 1986 Member, Visiting Committee Mt. Wilson–Las Campanas Observatories
- 1985– Trustee, Carnegie Institution of Washington
- 1985–1997 Member, Wide-Field Camera Team, *Hubble Space Telescope*
- 1985 Chair, Search Committee for Director, Mt. Wilson–Las Campanas Observatories
- 1985– Member, Employee Affairs Committee, Carnegie Institution of Washington
- 1985– Member, National Academy of Sciences
- 1884 Founder, Tinsley Award, American Astronomical Society
- 1984 Consultant, Michigan State University Physics & Astronomy Departments
- 1984 Referee, NASA Proposals
- 1984 Member, Galaxies and Clusters Working Group for Space Telescope Science Institute
- 1983–1984 Chair, Visiting Committee for Space Telescope Science Institute
- 1983–1984 Member, Scientific Advisory Committee for National New Technology Telescope
- 1982–1983 Referee, Research Corporation
- 1982 Referee, American Philosophical Society
- 1981 Member, Astronomy Grants Review Panel, National Science Foundation

1979–1981	Member, Astronomy Survey Committee, National Academy of Sciences (Field Report)
1979–1981	Member, Time Assignment Committee, Kitt Peak National Observatory
1979–1981	Member, Astronomy Advisory Panel, National Science Foundation
1979–1980	Chair, Extragalactic Working Group, National Academy of Sciences
1979–1980	Member, Optical IR Subcommittee, Astronomy Panel National Science Foundation
1978	Referee, NASA
1977–1978	Member, Princeton Wide-Field Camera Team for Space Telescope
1975–1976	Member, Time Assignment Committee, Cerro-Tololo Interamerican Observatory
1973–	Referee, National Science Foundation

### Participation in public lectures or forums

2005	Sackler Colloquium, Physics Department, Princeton University “Red and Dead Galaxies: ‘Terminated’ by Resident Black Holes?”
2005	Public lecture, Institute d’Astrophysique de Paris “The Cosmic Foundations of Intelligent Life”
2005	Conference summary, Nearly Normal Galaxies II, UC Santa Cruz “The Formation of Spheroidal Galaxies”
2005	Colloquium, Astronomy Department, Princeton University “The Evolution of Galaxies Since $z \sim 1$ from DEEP <sub>2</sub> and Other Surveys”
2004	Nova Colloquium speaker, Netherlands Research School of Astronomy Colloquia delivered at Leiden University and Groningen University “The Evolution of Galaxies over the Last Half of Cosmic Time”
2004	Halley Lecture, Physics Department, Oxford University “The Evolution of Galaxies over the Last Half of Cosmic Time”
2004	Colloquium, Astronomy Department, University of Texas, Austin “Early Results from the DEEP Survey”
2004	Radio interview, <i>Earth and Sky</i> “Distant Galaxy Evolution”
2004	Colloquium, Astronomy Department, Caltech “Early Results from the DEEP Survey”
2004	Public lecture, Hebrew University of Jerusalem “The Big Bang...Truth or Nonsense?”
2004	Invited talk, University of California, Santa Cruz Alumni Luncheon “The DEEP Survey and the DEIMOS Spectrograph”
2004	Colloquium, Astronomy Department, New York University “Early Results from the DEEP Survey”
2004	Three lectures at the “Origins of Galaxies, a Winter School at the Institute for Advanced Studies,” the Hebrew University of Jerusalem, December 2003–January 2004 “The Properties of Nearby Massive Galaxies” “Star Formation and Mergers” “Galaxy Evolution to $z \sim 1$ ”
2003–2004	Advisor to Public Television NOVA “Origins” series; appeared in Part IV.
2003	Colloquium, Kitt Peak National Observatory “Early Results from the DEEP <sub>2</sub> Survey”

- 2003 Colloquium, Department of Astronomy and Astrophysics, UC Santa Cruz  
“The DEIMOS Spectrograph”
- 2003 Invited talk, Society for Advancement of Chicanos and Native Americans in Science  
“Adaptive Optics”
- 2003 Keynote speaker, NSF symposium on Ground-Based Astronomy  
“From the Big Bang to Us: Astronomy and Our Place in the Cosmos”
- 2003 Public lecture, Astronomical Society of the Pacific  
“The Big Bang...Truth or Nonsense?”
- 2003 Colloquium, NASA–Ames Research Center  
“The DEEP Survey: Early Results”
- 2003 Invited lecture to COSMOS Summer High School Program (with P. Guhathakurta)  
“The Milky Way, Schroedinger's Cat, and You”
- 2003 Public lecture, Mt. Hamilton Summer Visitors Program  
“Adaptive Optics: Stars, Sight, and Science”
- 2003 Invited lecture, Workshop on Galaxy Formation, Hebrew University of Jerusalem  
“The Luminosity Function of Galaxies at  $z \sim 1$ ”
- 2003 Invited talk, Natural Sciences Division Quarterly Luncheon  
“Telescopes as Time Machines”
- 2002 Presentation to the Regents, University of California, Santa Cruz  
“The History of Astronomy at UCSC”
- 2002 Invited lecture to COSMOS Summer High School Program, University of California, Santa Cruz (with P. Guhathakurta)  
“Shredding, Tearing, and Merging: Violent Events in the History of Galaxies”
- 2002 Invited talk, SPIE conference, Kona, Hawaii  
“The DEIMOS Spectrograph”
- 2002 Invited talk, Keck Science meeting, UC Berkeley  
“The DEIMOS Spectrograph”
- 2002 Conference summary, Carnegie Centennial Symposium on Cosmology, Pasadena
- 2001 Invited lecture to COSMOS Summer High School Program, University of California, Santa Cruz (with P. Guhathakurta)  
“Violent Events in the History of Galaxies”
- 2001 Public lecture, Mt. Hamilton Summer Visitors Program  
“Adaptive Optics: Helping Ground-Based Telescopes Surpass Hubble”
- 2001 Conference Summary, Vatican Symposium on Disk Galaxies, Rome
- 2001 Invited review, Vatican Symposium on Disk Galaxies  
“The Evolution of Disk Galaxies to  $z = 1$ ”
- 2001 Public lecture, Foothill Planetarium Series  
“Iconic Images of Astronomy: Visions of the Universe and Ourselves”
- 2001 TV appearance, BBC science documentary  
“Black Holes and the Universe”
- 2000 Colloquium, Institute for Astronomy, Cambridge, England  
“The DEEP Redshift Survey”
- 2000 Colloquium, National Science Foundation, Washington, D.C.  
“The DEEP Redshift Survey”
- 2000 Presentation, Santa Cruz County physics teachers, Cabrillo College  
“The University of California, Santa Cruz Center for Adaptive Optics”

- 1999 Millenium Lecture: Hebrew University of Jerusalem  
“The Most Important Astronomical Images of the Twentieth Century”
- 1999 TV appearance, Discovery Channel International astronomy program  
“The Trouble with Hubble”
- 1999 Invited talk, AAAS Western Conference, Section on Science and Religion  
“The Anthropic Principle Demystified”
- 1999 TV appearance, PBS astronomy program  
“Voyage to the Milky Way”
- 1999 Invited review, symposium to celebrate the 60th Birthday of James Gunn  
“First Results from the DEEP Survey of the Distant Universe”
- 1999 Public lecture, Smithsonian Air and Space Museum  
“Hubble Images: Delight at the End of the Tunnel”
- 1999 Invited review, AAAS Conference on Cosmology and Religion: Cosmic Questions  
“The Big Bang Really Happened”
- 1999 Public lecture, Morrison Planetarium  
“Iconic Astronomical Images of the 20th Century”
- 1998 Carnegie lecture, Carnegie Institution of Washington, Washington, D.C.  
“The Most Memorable Images of the *Hubble Space Telescope*”
- 1998 Graduation speaker, Kirby Private School, Santa Cruz  
“The 21st Century”
- 1998 Invited speaker, Los Gatos Unitarian Church  
“Modern Cosmology: The Modern Version of Genesis”
- 1998 Lunch time talk, Kitt Peak National Observatory, Tucson  
“The Nature of High- $z$  Galaxies”
- 1998 Invited lecture, COSPAR meeting, Nagoya, Japan  
“Masses and Frequencies of Back Holes in Galactic Nuclei”
- 1998 Panel guest on Michael Kraczney’s radio talk show  
*Forum*, KQED radio
- 1998 Invited lecture, UC Sacramento Alumni Association, Sacramento  
“A Brief History of the Universe”
- 1998 Humanities Division Public Lecture, Santa Cruz Museum  
“How We Got Here: The Big Bang to Now”
- 1997 Colloquium, Center for Particle Astrophysics, UC Berkeley  
“The Nature of High- $z$  Galaxies”
- 1997 Invited After-Dinner Talk, Center for Non-Linear Optical Materials, Stanford University  
“The Modern Cosmic Myth”
- 1997 UCLA Science Commencement Address, UCLA  
“Scientists in the 21st Century”
- 1997 Lecture to Keck/CARA employees, CARA Headquarters, Waimea, HI  
“Keck Observations of the Distant Universe”
- 1997 DEIMOS Spectrograph Camera Critical Design Review  
“Optical Error Budget, Optical Fluid Couplings, Coatings, Thermal Environment”
- 1997 DEIMOS Spectrograph Software Critical Design Review  
“Software Goals, Flexure Compensation System”
- 1997 DEIMOS Spectrograph Detector/Dewar Critical Design Review  
“Flexure compensation system”

- 1997 Delphasus Lecture, UC Santa Cruz  
“A *Hubble Space Telescope* Picture Gallery”
- 1997 Antoinette de Vaucouleurs Prize Lecture, University of Texas, Austin  
“A *Hubble Space Telescope* Picture Gallery”
- 1997 Colloquium, University of Texas, Austin  
“The Nature of High-Redshift Galaxies”
- 1997 Public talk, National Academy Roundtable, Stanford University  
“A Review of Modern Cosmology”
- 1997 TV appearance, three-part cosmology program for PBS (appeared in two parts)  
“Mysteries of Deep Space”
- 1997 TV appearance, six-part astronomy series for the BBC (appeared in three parts)  
“Stephen Hawking’s Universe”
- 1997 TV appearance, astronomy program for the Discovery Channel  
“Cathedrals of the Sky”
- 1996 Public lecture, Institute for Theoretical Physics, UCSB  
“A *Hubble Space Telescope* Picture Gallery”
- 1996 Colloquium, Astronomy Department, UCLA  
“Speculations on High-Redshift Galaxies”
- 1996 Short talk, Santa Cruz Universe Factory Workshop  
“Elliptical Galaxies at Intermediate Redshift”
- 1996 Colloquium, Physics and Astronomy Department, University of California, San Diego, “Cores of Galaxies with *HST*: Status of the Black-Hole Search”
- 1996 DEIMOS Spectrograph Software Preliminary Design Review,  
“Overall Software Goals”
- 1996 Luncheon speaker, Soroptimists International Annual Meeting, Sacramento  
“My Life as an Astronomer”
- 1996 Public lecture, Churchill Club and Commonwealth Club, Palo Alto  
“The *Hubble Space Telescope*: Back from the Dead”
- 1995 DEIMOS Spectrograph Critical Design Review  
“Optical Coatings, Gratings, Filters, and Error Budget”
- 1995 Invited talk, Gravitational Dynamics Conference in honor of Donald Lynden-Bell Cambridge  
“Cores of Early-Type Galaxies: Evidence for Black Holes”
- 1995 Conference Summary, International Astronomical Union, Symposium No. 171 on Galactic Evolution, Heidelberg
- 1995 Colloquium, Aspen Institute of Physics  
“Core Parameter Relations of Early-Type Galaxies with *HST*”
- 1995 Public lecture, Monterey Institute for Research in Astronomy Public  
“Scientific Results from the *Hubble Space Telescope*”
- 1995 Invited talk, University of California, Santa Cruz Sigma Xi dinner  
“The Latest News from the *Hubble Space Telescope*”
- 1995 Interview, Santa Cruz Community TV station
- 1995 Public talk, Friends of the Santa Cruz Library  
“*Hubble Space Telescope* : Back from Dead”
- 1995 Colloquium, Department of Terrestrial Magnetism, Carnegie Institution of Washington  
“Nuclei of Galaxies with the *Hubble Space Telescope*”

- 1995 Colloquium, Astronomy Department, Caltech  
“Stellar Populations in Elliptical Galaxies”
- 1994 Colloquium, National Optical Astronomy Observatory  
“Stellar Populations in Elliptical Galaxies”
- 1994 DEIMOS Spectrograph Preliminary Design Review  
“Scientific Overview and Flexure Compensation System”
- 1994 Invited lecture, American Astronomical Society  
“Cores of Early-Type Galaxies as Viewed by the *Hubble Space Telescope*”
- 1994 Mohler Lecture, University of Michigan, Physics Department  
“From the Big Bang to Galaxies” (public lecture)
- 1994 “Elliptical Galaxies: Breaking the Age-Metallicity Degeneracy” (colloquium)  
Colloquium, Institute for Geophysics and Planetary Physics, Lawrence Livermore National Laboratory
- 1994 “Nuclei of Galaxies with the *Hubble Space Telescope*”  
Invited talk, Institute of Theoretical Physics, Workshop on Stellar Dynamics  
University of California Santa Barbara  
“The Double Nucleus of M31”
- 1994 Invited talk, International Astronomical Union, Symposium No. 164 on Stellar Populations, the Hague  
“The Ages of Stars in Elliptical Galaxies”
- 1994 TV appearance, KCTM, Southern California public television
- 1994 Public lecture, Monterey Institute for Astronomy  
“*Hubble Space Telescope*: Back from the Dead”
- 1994 University of California Santa Cruz Women’s Club  
“The *Hubble Space Telescope* Refurbishment Mission”
- 1994 University of California Santa Cruz Alumni Association  
“*Hubble Space Telescope*: Back from the Dead”
- 1994 TV appearance, Alan Alda’s “Scientific American Frontiers”
- 1993 Two invited talks, Symposium on Cosmic Velocity Fields, Paris Observatory  
“A Homogeneous Catalog of 3100 Galaxy Peculiar Motions”  
Conference Summary
- 1993 Invited talk, Canadian Astronomical Society, Victoria, B.C.  
“Galaxy Streaming Motions based on a New Homogeneous Catalog of 3100 Galaxy Peculiar Motions”
- 1993 Colloquium, Astronomy Department, University of Washington  
“Galaxy Streaming Motions Within 6000 km s<sup>-1</sup>”
- 1993 Colloquium, Astronomy Department, University of California Los Angeles  
“Nuclei of Galaxies with the *Hubble Space Telescope*”
- 1993 Invited talk, East Bay Astronomical Society, Oakland, California  
“What’s New in Cosmology”
- 1992 Invited talk, Santa Catalina Girl’s School, Monterey  
“The *Hubble Space Telescope*”
- 1992 Gordon Tomkins Lecture, University of California San Francisco, Department of Biochemistry  
“Cosmology, the Universe, and You”
- 1992 Public lecture, Morrison Planetarium  
“*Hubble Space Telescope*: Back from the Dead”

- 1992 Invited talk, Northern California Society of Neurosurgeons  
“The *Hubble Space Telescope*”
- 1992 Invited talks, Santa Cruz Globular Cluster Workshop  
“Optical Spectra of Globular Clusters”  
“Proto-globular Clusters in NGC 1275”
- 1992 Public presentation, University of California Berkeley Center for Particle Astrophysics; Workshop on Changing the Climate in Science  
“The Big Bang: The Modern Creation Myth”
- 1992 Colloquium, Astronomy Department, University of California Berkeley  
“Nuclei of Galaxies as Imaged by the *Hubble Space Telescope*”
- 1992 Invited review, National Academy of Sciences Symposium on Large-Scale Structure of the Universe, Irvine, California  
“Large-Scale Motions of Galaxies”
- 1992 Bunyan Lectures, Physics Department, Stanford University  
“The Keck Telescopes” (public lecture)  
“Nuclei of Galaxies with the *Hubble Space Telescope*” (colloquium)
- 1992 Invited Marker Lectures, Astronomy Department, Pennsylvania State University  
“The Big Bang” (public lecture)  
“The Keck Telescope” (colloquium)  
“Nuclei of Galaxies with the *Hubble Space Telescope*” (colloquium)
- 1992 Colloquium, Physics Department, Sonoma State University  
“Nuclei of Galaxies with the *Hubble Space Telescope*”
- 1992 Colloquium, Physics, Department, University of California Santa Cruz  
“Nuclei of Galaxies with the *Hubble Space Telescope*”
- 1991 Colloquium, Royal Greenwich Observatory  
“Images of Galaxies with the *Hubble Space Telescope*”
- 1991 Darwin Lecture, Royal Astronomical Society  
“How Galaxies (Probably) Formed”
- 1991 Invited talk, IBM Corporation  
“Probing the Footprints of the Big Bang”
- 1991 Invited talk, Caltech Centennial Symposium on Cosmology  
“A Current Review of Large-Scale Motions of Galaxies”
- 1991 Invited talk, I.A.U. Colloquium No. 149 on Stellar Populations in Galaxies  
“Old Stellar Populations and Not-So-Old Stellar Populations”
- 1991 Colloquium, Board of Astronomy and Astrophysics, University of California Santa Cruz  
“Scientific Results from the Wide Field Camera, *Hubble Space Telescope*”
- 1990 Colloquium, Department of Terrestrial Magnetism, CIW  
“Scientific Results from the Wide Field Camera, *Hubble Space Telescope*”
- 1990 Invited talk at Science Writers Symposium, STScI  
“Galaxy Nuclei as Seen with the Wide-Field Planetary Camera on *Hubble Space Telescope*”
- 1990 Feshbach Lectures, Physics Department, MIT  
“The Far Side of the Great Attractor”  
“The Keck Telescope”  
“A Reappraisal of Cold Dark Matter and Large-Scale Structure in the Universe”
- 1990 Colloquium, University of California Riverside, Physics Department  
“The Great Attractor”

- 1990 Invited talk, Northern California Science Writers Association  
“The Keck Telescope, Space Telescope, and Cosmology”
- 1990 Public lecture, Varian, Palo Alto Research Center  
“Irregularities in the Expansion of the Universe”
- 1989 Invited talk, Taos Conference on Galaxy Formation, Taos, New Mexico  
“Update on the Great Attractor”
- 1989 Public lecture, Waimea, Hawaii  
“Voyaging in Space and Time with the Keck Telescope”
- 1988 Colloquium, Lockheed Missiles and Space Corporation, Palo Alto  
“The Great Attractor”
- 1988 Colloquium, Astronomy Department, Hebrew University  
“Large-Scale Anomalies in the Hubble Flow”
- 1988 Colloquium, Department of Physics and Astronomy, Tel Aviv University  
“The Keck Observatory”
- 1988 Colloquium, Physics Department, Hebrew University  
“Irregularities in the Expansion of the Universe”
- 1988 Carnegie Evening Annual Lecture, Washington, D. C.  
“Irregularities in the Expansion of the Universe”
- 1988 Welcoming remarks, Conference of California Street-lighting Association  
San Jose, California
- 1988 University of California Santa Cruz Dean’s Forum, Santa Clara  
“Astronomical Technology”
- 1988 Welcoming address, Lick Centennial, Mt. Hamilton  
“Astronomical Instrumentation at Lick Observatory”
- 1987 Invited lecture, University of California Los Angeles Public Science Series  
“Galaxies: A Milestone on the Road to Intelligent Life”
- 1987 Conference Summary, Royal Greenwich Observatory Workshop, London
- 1987 Invited lecture, Royal Astronomical Society, London  
“The Structure of Elliptical Galaxies”
- 1987 Colloquium, University of California Santa Barbara  
“Irregularities in the Hubble Flow”
- 1987 Colloquium, Yale University  
“Irregularities in the Hubble Flow”
- 1987 Colloquium, University of California. Berkeley Physics Department  
“Large-Scale Motions of Galaxies”
- 1987 Invited review talk, IAU Colloquium No. 130  
“Large-Scale Structure and Bulk Motions”
- 1987 Colloquium, University of California Santa Cruz Physics Department  
“The New Super Galactic Center”
- 1987 Colloquium, Space Telescope Science Institute  
“Large-Scale Motions of Galaxies”
- 1987 Invited Tetelman Lecture, Jonathan Edwards College, Yale University  
“Galaxies and the Universe”
- 1987 Colloquium, Lowell Observatory, United States Naval Observatory  
“Irregularities in the Hubble Flow”
- 1987 Invited lecture, Kenna Club, Santa Clara University  
“The Early Universe”

- 1987 Colloquium, Sonoma State Physics Department  
“Irregularities in the Hubble Expansion”
- 1987 Invited lecture, Vatican Symposium on Large-Scale Motions of Galaxies, Rome  
(shared with D. Burstein)  
“Motions of Nearby Galaxies”
- 1986 Heineman Prize Lecture, American Astronomical Society, Houston  
“Elliptical Galaxies and the Hubble Expansion of the Universe”
- 1986 Colloquium, University of Chicago,  
“E Galaxies and the Hubble Flow”
- 1986 Colloquium, Department of Terrestrial Magnetism, Washington, D. C.  
“E Galaxies and the Hubble Flow”
- 1986 Colloquium, Hewlett-Packard Corporation, Palo Alto  
“The Origin of the Galaxies”
- 1986 Invited talk, Sons in Retirement Association, San Jose  
“Space Telescope: Eye of the Future”
- 1986 Three invited lectures at the Santa Cruz Theoretical Advanced Study Institute on  
Elementary Particle Physics  
“Particle Physics and Cosmology”
- 1986 Invited talk on light pollution and astronomy to Hawaii public works officials  
“Astronomers Do It at Night”
- 1986 University of California Santa Cruz Astrophysics Workshop  
“Scaling Laws for Elliptical Galaxies”
- 1986 Invited Director’s Prize Lecture, Lawrence Livermore Laboratory  
“The Origin of Structure in the Universe”
- 1986 Colloquium, Lawrence Livermore Laboratory  
“A Local Large-Scale Streaming Flow”
- 1986 Invited Laboratory Guest Lecturer, Los Alamos Laboratory  
“Irregularities in the Hubble Expansion of the Universe”
- 1985 Colloquium, Arizona State University  
“Cold Dark Matter and Galaxy Formation”
- 1985 Colloquium, University of California Los Angeles  
“Origin of Galaxies”
- 1985 Colloquium, Stanford Linear Accelerator Center  
“Origin of Galaxies”
- 1985 Public lecture, Dartmouth College  
“Galaxies and Cosmology”
- 1985 Colloquium, University of California Berkeley  
“Galaxy Formation and Cold Dark Matter”
- 1985 Colloquium, Physics Department, University of California Santa Cruz  
“The Keck Observatory”
- 1985 Invited lecture, Princeton Symposium on Dark Matter  
“Cold Dark Matter: Key Issues”
- 1985 Symposium, *Hubble Space Telescope*, Baltimore  
“Using *HST* to Study Distant Galaxies”
- 1985 Lecture, Sigma Xi, Swarthmore College
- 1985 Colloquium, Swarthmore College  
“The Keck Observatory”

- 1984 Invited lecture at IES-AA Joint Meeting on Light Pollution and Astronomy,  
Arizona State University, Tempe, Arizona  
“Astronomy and New Technology”
- 1984 Invited talk, Stanford Women in Science Lecture Series, Stanford University  
“How Galaxies Form”
- 1984 Colloquium, Astronomy Department, Princeton University  
“The Origin of the Structure in the Universe”
- 1984 Presentation at NNTT Open Meeting, Baltimore  
“Observing Distant Galaxies with the NNTT”
- 1984 Talk, Santa Cruz Lions Club  
“The University of California Ten Meter Telescope Project”
- 1984 Colloquium, Stanford University  
“Galaxy Formation and Cold Dark Matter”
- 1984 Talk, American Association of Physics Teachers, Santa Cruz  
“The Origin of Structure in the Universe”
- 1983 Three public lectures as visiting professor, University of Hawaii  
“The Metallic-Line Spectra of K-giants and Old Stellar Populations”  
“Non-Luminous Matter in Dwarf Galaxies”  
“Galaxy Formation and Cosmology”
- 1983 Invited guest, KCBS-FM Science Talk Show, two hours
- 1983 Two interviews on “The University Explorer” radio series on galaxy formation
- 1983 Invited speaker at public forum of the Astronomical Society of the Pacific  
Stanford  
“Astronomy of the 1990’s”
- 1983 Invited lecture at ESO-CERN Symposium on Cosmology and Fundamental  
Physics, Geneva, Switzerland  
“Galaxy Formation and Cosmology”
- 1982 Colloquium, University of Michigan  
“Galaxy Formation”
- 1982 Colloquium, Mt. Wilson–Las Campanas Observatories  
“Galaxy Formation”
- 1982 Invited review, IAU Joint Discussion, Patras, Greece  
“The Stellar Content of Elliptical Nuclei”
- 1982 Invited lecture, IBM Employee Education Division  
“Astronomy in the 1980s”
- 1982 Invited lecture, San Francisco Bay Area Amateur Astronomers  
“Astronomy and Light Pollution”
- 1982 Colloquium, Astronomy Department, University of Groningen (Netherlands)  
“Non-Luminous Matter in Dwarf Galaxies”
- 1982 Colloquium delivered at the following institutions: National Radio Astronomy  
Observatory, Very-Large Array, Datil, New Mexico; Dutch Foundation for Radio  
Astronomy, Dwingeloo, Netherlands; Astronomy Department, University of  
California Los Angeles  
“Non-Luminous Matter in Dwarf Galaxies”
- 1982 Invited lecture at the Texas Symposium on Relativistic Astrophysics  
Austin, Texas  
“Large Optical Telescopes: New Views into Space and time”

- 1981 Invited lecture, Kenna Club, Santa Clara University  
“Astronomy in the 1980s”
- 1981 Invited lecture, IBM Planning Division, San Jose  
“Astronomy in the 1980s”
- 1981 Invited review, Vatican Study Week on Cosmology and Fundamental Physics  
Rome  
“Galaxies as Cosmological Probes”
- 1981 Contributed paper, Vatican Study Week on Cosmology and Fundamental Physics  
Rome  
“The Origin of the Hubble Sequence”
- 1981 Invited review lecture, Aspen Institute for Physics  
“The History of Star Formation in Early-Type Galaxies”
- 1981 Colloquium at San Francisco State University  
“Galaxy Formation”
- 1981 Colloquium at University of Wyoming  
“Galaxy Formation”
- 1980 Invited review lecture, Kitt Peak Symposium on Telescopes for the 1980s, Tucson  
“Science with a 10-m Telescope”
- 1979 Invited review paper, International Astronomical Union, Montreal  
“Composition of Nearby Galaxies”
- 1979 Invited review lecture, International Astronomical Union, Montreal  
“Structure of the Nuclei of Normal Galaxies”
- 1978 Movie: Women and Mathematics, Mills College
- 1978 Television: Bay Area Women (locally) KQED; Turnabout (nationally) on NET network
- 1978 Public lecture, Smithsonian Air & Space Museum Planetarium
- 1978 Invited lecturer, Princeton University Observatory (5 lectures)
- 1978 Colloquium at Arizona State University  
“Light Pollution and Astronomical Observations”
- 1978 Colloquium at University of Illinois  
“Light Pollution and Astronomical Observations”
- 1978 Colloquia at University of Washington, Caltech, and Kitt Peak National Observatory: “Composition of Nearby Galaxies”
- 1977 Invited review lecture, Yale University Conference on Formation and Evolution of Galaxies  
“The Chemical Composition of Old Stellar Populations”
- 1977 Invited participant, University of Arizona, Career Conference on Women in Science
- 1976 Colloquium, University of Michigan  
“H I in Early-Type Galaxies”
- 1976 Colloquium, Harvard University  
“H I in Early-Type Galaxies”
- 1976 Paper delivered at the Grenoble meeting of the IAU, Grenoble, France,  
“H I in the Sombrero Galaxy”
- 1975 Paper delivered at Cambridge Workshop on Galaxies, Cambridge  
“The Nature of the Hubble Sequence”
- 1975 Paper delivered at Cambridge Workshop on Galaxies, Cambridge  
“Rotation Curves of Spiral Galaxies”

- 1975 Paper delivered at Cambridge Workshop on Galaxies, Cambridge  
“Core Properties of Elliptical Galaxies”
- 1975 Invited lecture, American Astronomical Society, San Diego, San Diego State University  
“Recent Developments in the Formation and Evolution of Galaxies”
- 1975 Divisional Colloquium, Natural Sciences Division, University of California Santa Cruz  
“Elliptical Galaxies: Standard Candles of the Universe”
- 1975 Colloquium, University of Toronto  
“Core Properties of Elliptical Galaxies”
- 1975 Colloquium, Yale Observatory  
“Core Properties of Elliptical Galaxies”
- 1975 Colloquium, University of California San Diego  
“Gas in Early-Type Galaxies”
- 1974 Colloquium, Kitt Peak National Observatory  
“H I in Early-Type Galaxies”
- 1974 Colloquium, University of California. Berkeley  
“H I in Early-Type Galaxies”
- 1974 Colloquium, University of California Los Angeles  
“H I in Early-Type Galaxies”
- 1974 Colloquium, Sonoma State  
“Nature of the Hubble Sequence”
- 1974 Colloquium, University of Maryland  
“Velocity Dispersions in E Galaxies”
- 1974 Colloquium, University of Wisconsin  
“Velocity Dispersions in E Galaxies”
- 1974 Colloquium, University of Minnesota  
“Velocity Dispersions in E Galaxies”

### **Service to the staff or editorial board of scholarly journals, or other publications**

- 1995 Referee, *Monthly Notices of the Royal Astronomical Society*
- 1994 Referee, *Monthly Notices of the Royal Astronomical Society*
- 1991 Referee, *Nature*
- 1989 Referee, *Nature*
- 1987 Referee, *Nature*
- 1986 Referee, *Publications of the Astronomical Society of the Pacific*
- 1984–1986 Associate Editor, *Astrophysical Journal Letters*
- 1983–1990 Referee, *Astronomy and Astrophysics*
- 1983 Referee, *Publications of the Astronomical Society of the Pacific*
- 1982–1985 Editorial Board, *Annual Review of Astronomy and Astrophysics*
- 1982 Associate Editor, *Astrophysical Journal Letters*
- 1981 Referee, *Applied Optics*
- 1980–1981 Referee, *Astronomy and Astrophysics*
- 1976 Referee, *Publications of the Astronomical Society of the Pacific*
- 1975– Referee, *Astrophysical Journal*
- 1974– Referee, *Astronomical Journal*

### **Membership and activities in professional associations (activities, dates)**

2001–	Member, American Philosophical Society
1998–	Member, California Academy of Sciences
1992–1994	Member, Heineman Prize Committee, American Astronomical Society
1989–	Member, American Academy of Arts and Sciences
1986–1990	Member, Nominating Committee, American Astronomical Society
1986–1989	Member, Light Pollution Committee, American Astronomical Society
1985	Chair, Tinsley Award Committee, American Astronomical Society
1983	Chair, Warner–Pierce Prize Committee, American Astronomical Society
1983	Member, Tinsley Memorial Fund-Raising Committee
1981–1984	Councillor, American Astronomical Society
1981–1983	Member, U.S. National Committee for the International Astronomical Union
1980–1982	Member, Warner–Pierce Prize Committee, International Astronomical Union
1980–1982	Chairperson, External Awards Committee, American Astronomical Society
1979–1980	Elected representative: U.S. National Committee for the International Astronomical Union
1979	Chairperson, Committee on Honors and Awards, American Astronomical Society
1977–	Member, International Astronomical Union
1974–1978	Member, Medal of Science Committee, American Astronomical Society
1970–	Member, American Astronomical Society

### **TEACHING**

(not including thesis supervisions or independent research)

Quarter/	Year	Name/Number	Title of Class	Total Enrolled	Shared Y/N	% Evaluations Returned
Fall 05	Astronomy 297	Independent Study	3	No	n/a	
Spring 05	Astronomy 297	Independent Study	2	No	n/a	
Winter 05	Astronomy 297	Independent Study	2	No	n/a	
Fall 04	Astronomy 297	Independent Study	2	No	n/a	
Spring 04	Astronomy 297	Independent Study	1	No	n/a	
Winter 04	Astronomy 297	Independent Study	2	No	n/a	
Fall 03	Astronomy 297	Independent Study	1	No	n/a	
Fall 02	Astronomy 240A	Galactic & Extragalactic Systems	15	No	87%	
Fall 02	Astronomy 297	Independent Study	1	No	n/a	
Spring 02	Astronomy 297	Independent Study	1	No	n/a	

<b>Quarter/</b>			<b>Total Enrolled</b>	<b>Shared Y/N</b>	<b>% Evaluations Returned</b>
<b>Year</b>	<b>Name/Number</b>	<b>Title of Class</b>			
Winter 02	Astronomy 297	Independent Study	1	No	n/a
Fall 01	Astronomy 297	Independent Study	1	No	n/a
Spring 01	Astronomy 5	Introduction to Galaxies and Cosmology	65	No	42%
Spring 01	Astronomy 297	Independent Study	2	No	n/a
Winter 01	Astronomy 297	Independent Study	2	No	n/a
Fall 00	Astronomy 297	Independent Study	3	No	n/a
Spring 00	Astronomy 240A	Galactic & Extragalactic Systems	5	No	40%
Spring 00	Astronomy 297	Independent Study	2	No	n/a
Winter 00	Astronomy 297	Independent Study	1	No	n/a
Spring 99	Astronomy 297	Independent Study	1	No	n/a
Winter 99	Astronomy 297	Independent Study	1	No	n/a
Fall 98	Astronomy 297	Independent Study	1	No	n/a
Fall 98	Astronomy 240A	Galactic & Extragalactic Stellar Systems	7	No	43%
Fall 96	Astronomy 240A	Galactic & Extragalactic Stellar Systems	5	No	100%
Winter 96	Astronomy 240A	Galaxies	9	No	44%
Spring 95	Astronomy 297	Independent Study	1	No	n/a
Winter 95	Astronomy 240A	Galaxies	7	No	25%
Winter 95	Astronomy 297	Independent Study	1	No	n/a
Spring 94	Astronomy 5	Introduction to Galaxies and Cosmology	44	No	68%
Spring 94	Astronomy 297	Independent Study	2	No	n/a
Winter 94	Astronomy 297	Independent Study	2	No	n/a
Fall 93	Astronomy 297	Independent Study	1	No	n/a
Spring 93	Astronomy 297	Independent Study	2	No	n/a
Winter 93	Astronomy 240A	Galaxies	10	No	100%
Winter 93	Astronomy 297	Independent Study	1	No	n/a
Fall 92	Astronomy 5	Introduction to Galaxies and Cosmology	69	No	n/a
Spring 92	Astronomy 5	Introduction to Galaxies and Cosmology	26	No	n/a
Spring 91	Astronomy 240A	Galaxies	14	No	n/a

<b>Quarter/</b>			<b>Total Enrolled</b>	<b>Shared Y/N</b>	<b>% Evaluations Returned</b>
Year	Name/Number	Title of Class			
Spring 93	Astronomy 297	Independent Study	2	No	n/a
Winter 93	Astronomy 240A	Galaxies	10	No	100%
Winter 93	Astronomy 297	Independent Study	1	No	n/a
Fall 92	Astronomy 5	Introduction to Galaxies and Cosmology	69	No	n/a
Spring 92	Astronomy 5	Introduction to Galaxies and Cosmology	26	No	n/a
Spring 91	Astronomy 240A	Galaxies	14	No	n/a
Winter 89	Astronomy 240A	Galaxies	13	No	n/a
Spring 88	Astronomy 113	Physical Cosmology	5	No	n/a
Fall 86	Astronomy 240A	Galaxies	8	No	n/a
Spring 86	Astronomy 113	Physical Cosmology	15	No	n/a
Fall 84	Astronomy 13	Our Galaxy and Beyond	15	No	n/a
Spring 84	Astronomy 240A	Galactic Stellar Systems			n/a
Fall 82	Astronomy 240A	Galactic Structure	9	No	n/a
Spring 82	Astronomy 297	Independent Study	1	No	n/a
Spring 82	Astronomy 5	Our Galaxy and Beyond	90	No	n/a
Spring 80	Astronomy 5	Our Galaxy and Beyond	50	No	n/a
Spring 79	Astronomy 199	Tutorial	1	No	n/a
Spring 79	Astronomy 199	Tutorial	1	No	n/a
Spring 79	Astronomy 5	Our Galaxy and Beyond	35	No	n/a
Spring 78	Astronomy 5	Our Galaxy and Beyond	22	No	n/a
Spring 77	Astronomy IC	Basic Astronomy	25	No	n/a
Fall 75	Astronomy 1A	Introductory Astronomy	140	No	n/a
Winter 75	Astronomy 240A	Galactic Astronomy	10	No	n/a
Winter 74	Astronomy 11B	Introductory Astronomy	7	No	n/a
Spring 73	Astronomy 11B	Introductory Astronomy	4	No	n/a
Spring 73	Astronomy 199	Tutorial: Extragalactic Astronomy	1	No	n/a
Winter 73	Astronomy 199	Astronomy Tutorial	1	No	n/a
Winter 72	Astronomy 220B	Stellar Spectroscopy	8	No	n/a

## GRADUATE STUDENTS AND FELLOWS SUPERVISED

<b>Year</b>	<b>Graduate Students</b>	<b>Postdoctoral Fellows</b>
2005	L. Raschke (shared) N. Konidaris (shared) G. Novak (shared) J. Harker G. Graves	C. Willmer K. Noeske A. Metevier S. Kassin
2004	P. Jonsson (shared) L. Raschke (shared) N. Konidaris (shared) G. Novak J. Harker G. Graves	B. Weiner C. Willmer K. Noeske
2003	P. Jonsson (shared) L. Raschke (shared) N. Konidaris (shared) J. Harker (shared) G. Novak	A. Phillips (Assoc. Research Astronomer) E. Steinbring (CfAO) B. Weiner C. Willmer R. Schiavon
2002	P. Jonsson (shared) L. Raschke (shared)	A. Phillips (Associate Specialist) R. Schiavon E. Steinbring (CfAO) B. Weiner
2001	L. Raschke (shared) P. Jonsson (shared)	A. Phillips (Associate Specialist) R. Schiavon (Gemini Fellow) E. Steinbring (CfAO)
2000	K. Wu L. Raschke P. Jonsson (shared)	A. Phillips (Associate Specialist) R. Schiavon (Gemini Fellow) E. Steinbring (CfAO)
1999	K. Wu P. Jonsson (shared)	A. Phillips (Associate Specialist) K. Gebhardt (Hubble Fellow) L. Simard M. Im
1998	K. Wu P. Jonsson	A. Phillips (Associate Specialist) N. Vogt K. Gebhardt (Hubble Fellow) L. Simard
1997	K. Wu S. Trager	A. Phillips (Associate Specialist) N. Vogt K. Gebhardt (Hubble Fellow)
1996	S. Trager K. Wu	A. Phillips (Associate Specialist)
1995	S. Trager K. Wu	C. Grillmair
1994	S. Trager	C. Grillmair

<b>Year</b>	<b>Graduate Students</b>	<b>Postdoctoral Fellows</b>
1993	J. Gonzalez S. Trager C. Dalle Ore	C. Grillmair
1992	C. Dalle Ore S. Courteau S. Trager J. Gonzalez G. Worthey	R. Light C. Gillmair
1991	C. Dalle Ore G. Worthey J. Gonzalez S. Courteau	R. Light
1990	C. Dalle Ore S. Courteau J. Gonzalez G. Worthey	R. Light
1989	C. Dalle Ore S. Courteau J. Gonzalez	R. Light
1988	C. Dalle Ore J. Gonzalez J. Holtzman S. Courteau	
1987	C. Dalle Ore J. Gonzalez J. Holtzman S. Courteau	
1986	C. Dalle Ore J. Gonzalez J. Holtzman S. Courteau	
1985	Kap Soo Oh J. Gonzalez D. Terndrup C. Dalle Ore J. Holtzman	
1984	Kap Soo Oh J. Gonzalez D. Terndrup, visiting grad student C. Dalle Ore from Padua, Italy	
1983	T. Lauer Kap Soo Oh	
1982	T. Lauer	
1981	R. Stoughton	
1980	R. Jackson R. Stoughton	R. Davies

<b>Year</b>	<b>Graduate Students</b>	<b>Postdoctoral Fellows</b>
1979	R. Jackson R. Stoughton	R. Davies N. Krumm
1978	R. Jackson	
1977	D. Burstein	
	R. Jackson	
1976	A. Dressler D. Burstein	
1975	R. Jackson J. Nocar A. Dressler D. Burstein Independent Study: M. Gaskell K. Krisciunas	
1974	R. Jackson A. Dressler J. Nocar B. McNamara	
1973	B. McNamara A. Dressler J. Nocar	

**STUDENTS AWARDED PhD DEGREE**

2000	K.L. Wu
1997	S.C. Trager
1993	C. Dalle Ore, J. Gonzalez
1992	S. Courteau, G. Worthey
1989	Jon Holtzman, Kap Soo Oh
1986	D. Terndrup
1984	T. Lauer
1982	R. Jackson
1978	D. Burstein
1977	A. Dressler
1975	B. McNamara

**UNDERGRADUATE RESEARCH**

2005	C.A. Cabrera	(CfAO diversity intern; shared)
2004	C.A. Cabrera	(CfAO diversity intern; shared)
	J. Holt	(CfAO diversity intern; Senior Thesis; shared)
1974	S. Edberg	(President's Undergraduate Fellow)