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Curriculum Vitae

Citizenship: USA

EDUCATION

American School of Paris, France High School Diploma 1965
University of California, Berkeley A.B. (Physics) 1969
University of California, Berkeley Ph.D. (Physics) 1975

POSITIONS HELD

2014 - Technology Liason, Keck Institute for Space Studies, Calif. Inst. Technology, Pasadena
2009 - Adjunct Professor of Astronomy, University of Arizona, Tucson
2008 - Chief Technologist, Astronomy and Physics Directorate, Jet Propulsion Laboratory
2006 - Senior Research Scientist, Jet Propulsion Laboratory
 NASA Project Scientist, Herschel Space Observatory
 Visiting Associate, Department of Astronomy, Calif. Inst. Technology, Pasadena
2006 - 2008 Supervisor, Group 3266, Evolution of Galaxies
2005 - 2006 Principal Scientist, Jet Propulsion Laboratory, Calif. Inst. Technology, Pasadena
2005 - Professor Emeritus of Astronomy, Cornell University
2000,2001,2004 Professeur Invité, Ecole Normale Supérieure, Paris, France
1999 - 2005 James Weeks Professor in the Physical Sciences, Department of Astronomy, Cornell University
1993 - 2002 Director, National Astronomy and Ionosphere Center
1993 - 2005 Professor, Department of Astronomy, Cornell University
1986 - 1992 Professor, Dept. of Physics & Astronomy, University of Massachusetts, Amherst
1982 - 1992 Vice President of Research and Development, Millitech Corporation
1981 - 1986 Associate Professor, Dept. of Physics & Astronomy, Univ. of Massachusetts, Amherst
1980 - 1992 Associate Director, Five College Radio Astronomy Observatory
1977 - 1980 Consultant, Lincoln Laboratory, Lexington, Massachusetts
1977 - 1979 Resident Visitor, Bell Laboratories, Holmdel, New Jersey
1977 - 1981 Assistant Professor, Dept. of Physics & Astronomy, Univ. of Massachusetts, Amherst
1975 - 1977 Member Technical Staff, Bell Laboratories, Crawford Hill Laboratory, New Jersey
1971 - 1975 Research Assistant, Dept. of Physics, University of California, Berkeley
1969 - 1970 Research Physicist, Lawrence Radiation Laboratory, Berkeley, California

HONORS AND AWARDS

Fellow, Institute of Electrical and Electronics Engineers, 1991
IEEE Microwave Theory & Techniques Society - Distinguished Lecturer, 1992
James Weeks Professor in the Physical Sciences, Cornell University, 1999
NASA Group Achievement Award, 2010
NASA Exceptional Achievement Medal, 2010
Edward Stone Award for Outstanding Research Publication, 2012
NASA Exceptional Scientific Achievement Medal, 2012

NATIONAL & INTERNATIONAL COMMITTEE SERVICE

Joseph Weber Award for Astronomical Instrumentation Committee, American Astronomical Society, 2003-2005

Chair, Scientific and Technical Advisory Committee for Large Millimeter Telescope (LMT) University of Massachusetts, Amherst, and INAOE (Mexico), 1994 -

PUBLICATIONS

Articles

“Collisional Excitation of Carbon Monoxide in Interstellar Clouds,” Goldsmith, P.F., Ap.J., 176, 597, 1972.

“Measurement of Atmospheric Attenuation at 1.3 and 0.87 mm with an Harmonic Mixing Radiometer,” Goldsmith, P.F., Plambeck, R., and Chiao, R., IEEE Trans. Microwave Theory Tech., MTT-22, 1115, 1974.

“Observations of the $J = 2-1$ Transition of Carbon Monoxide in Interstellar Clouds,” Goldsmith, P.F., Plambeck, R., and Chiao, R., Ap.J., 196, L39, 1975.

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“Rotational Excitation of Molecules by Electrons in Interstellar Clouds,” Dickinson, A.S., Phillips, T.G., Goldsmith, P.F., Percival, I.C., and Richards, D., Astron. Astrophys., 54, 645, 1977.

“Comparison of $J = 2-1$ and $J = 1-0$ Spectra of CO in Molecular Clouds,” Plambeck, R., Williams, D.R.W., and Goldsmith, P.F., Ap.J. (Lett.), 213, L41, 1977.

“Isotopic Abundance Variations in Interstellar HCN,” Linke, R.A., Goldsmith, P.F., Wannier, P.G., Wilson, R.W., and Penzias, A.A., Ap.J., 214, 50, 1977.

“A Quasioptical Feed System for Radioastronomical Observations at Millimeter Wavelengths, Goldsmith, P.F., B.S.T.J., 56, 1483, 1977.

“Molecular Cooling and Thermal Balance of Dense Interstellar Clouds,” Goldsmith, P.F. and Langer, W.D., Ap.J., 222, 881, 1978.

“Carbon Monoxide Mixing Ratio in the Mesosphere Derived From Ground-Based Microwave Measurements,” Goldsmith, P.F., Litvak, M.M., Plambeck, R.L., and Williams, D.R.W., J. Geophys. Res., 84, 416, 1979.

“Microwave Radiometer Blackbody Calibration Standard for Use at Millimeter Wavelengths,” Goldsmith, P.F., Kot, R.A., and Iwasaki, R.S., Rev. Sci. Instrum., 50(9), 1120, 1979.

“Tunable Submillimeter Sources Applied to Excited State Rotational Spectroscopy and Kinetics of CH_3F ,” Blumberg, W., Fetterman, H., Goldsmith, P.F., and Peck, D., *Appl. Phys. Lett.*, 35(8), 1979.

“Evidence for Isotopic Fractionation of Carbon Monoxide in Dark Clouds,” Langer, W.D., Goldsmith, P.F., Carlson, E.R., and Wilson, R.W., *Ap.J. (Lett.)*, 235, L39, 1980.

“Observations of Interstellar Carbon Monosulfide – Evidence for Turbulent Cores in Giant Molecular Clouds,” Linke, R.A. and Goldsmith, P.F., *Ap.J.*, 235, 437, 1980.

“Baseline Ripple Reduction by Quasi-Optical Phase Modulation,” Goldsmith, P.F. and Scoville, N.Z., *Astron. Astrophys.*, 82, 337, 1980.

“High Angular Resolution Observations of CS in the Orion Nebula,” Goldsmith, P.F., Langer, W.D., Schloerb, F.P., and Scoville, N.Z., *Ap.J.*, 240, 524, 1980.

“A Quasi-Optical Single Sideband Filter Employing a Semiconfocal Resonator,” Goldsmith, P.F. and Schlossberg, H., *IEEE Trans. Microwave. Theory. Tech.*, MTT-28, 1136, 1980.

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“A Cooled Schottky-Diode Mixer for 75–120 GHz,” Raisanen, A.V., Predmore, C.R., Parrish, P.T., Marrero, J.L., Goldsmith, P.F., Kot, R.A., and Schneider, M.V., *Proc. 10th European Microwave Conference*, Warsaw, Poland, Sept., 1980.

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“A Study of Interstellar Carbonyl Sulfide,” Goldsmith, P.F. and Linke, R.A., *Ap.J.*, 240, 524, 1980.

“Detection of the $J = 6-5$ Transition of Carbon Monoxide,” Goldsmith, P.F., Erickson, N.R., Fetterman, H.R., Clifton, B.J., Peck, D.D., Tannenwald, P.E., Koepf, G.A., Buhl, D., and McAvoy, N., *Ap.J.(Lett.)*, 243, L79, 1981.

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- “Determination of HNC to HCN Abundance Ratio in Giant Molecular Clouds,” Goldsmith, P.F., Langer, W.D., Elder, J., Irvine, W., and Kollberg, E., *Ap.J.*, 249, 524, 1981.
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- “Coupling of the Magnetic Field and Rotation in the Dark Cloud B5,” Young, J.S., Langer, W.D., Goldsmith, P.F., and Wilson, R.W., *Ap.J.(Lett.)*, 251, L81, 1981.
- “An Ultra Low-Noise Schottky Mixer Receiver at 80-120 GHz,” Raisanen, A., Erickson, N., Marroero, J., Goldsmith, P.F., and Predmore, C.R., *Proc. Sixth Int. Conf. IR and MM Waves*, W-3-8, 1981.
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- “Physical Conditions and Carbon Monoxide Abundance in the Dark Cloud B5,” Young, J.S., Goldsmith, P.F., Langer, W.D., Wilson, R.W., and Carlson, E.R., *Ap.J.*, 261, 513, 1982.
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“Molecular Outflows Associated with IRAS Sources in B5,” Langer, W.D., Goldsmith, P.F., and Wilson, R.W., Proc. Haystack Meeting, Masers, Molecules, and Mass Outflows in Star Forming Regions, A.D. Haschick, ed., 169, 1986.

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“Gaussian Beam Transformation with Cylindrical Lenses,” Goldsmith, P.F., IEEE Trans. Antennas Propag., AP-34, 603, 1986.

“A Detailed Examination of the Kinematics of Rotating Clouds,” Arquilla R. and Goldsmith, P.F., Ap.J., 303, 356, 1986.

“HCN Emission from Bipolar Reflection Nebulae,” Deguchi, S., Claussen, M.J., and Goldsmith, P.F., Ap.J., 303, 810, 1986.

“Molecular Outflows, Gas Density Distribution, and the Effects of Star Formation in the Dark Cloud B5,” Goldsmith, P.F., Langer, W.D., and Wilson, R.W., Ap.J.(Lett.), 303, L11, 1986.

“Submillimeter Observations of CS in M17,” Snell, R.L., Erickson, N.R., Goldsmith, P.F., Ulich, B.L., Lada, C.J., Martin, R.N., and Schulz, A., Ap.J., 304, 780, 1986.

“Solid State Submillimeter Radiometer for Space Applications,” P. Goldsmith, N. Erickson, A. Vickery, and N. Deo, Proc. ESA Workshop on a Space-Borne Sub-Millimetre Astronomy Mission, Segovia, Spain, June 1986, 221.

“Models of Molecular Cores II: Multi-transition Study of C³⁴S,” Mundy, L.G., Snell, R.L., Evans, N.J. II, Goldsmith, P.F., and Bally, J., *Ap.J.*, 306, 670, 1986

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“1300 Micron Continuum Observations of the Sagittarius B2 Molecular Cloud Core,” Goldsmith, P.F., Snell, R.L., and Lis, D.C., *Ap.J.*, 313, L5, 1987.

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“The Vicinity of Omicron Per,” Bachiller, R., Cernicharo, J., Goldsmith, P., and Omont, A., *Astron. Astrophys.*, 185, 297, 1987.

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- “1.4MM H₂CO Observations of NGC2071,” Tauber, J., Goldsmith, P.F., and Snell, R.L., Ap.J., 325, 846, 1988.
- “Linear Polarization of Millimeter–Wave Emission Lines in Clouds Without Large Velocity Gradients,” Lis, D.C., Goldsmith, P.F., Dickman, R.L., Predmore, C.R., Omont, A., and Cernicharo, J., Ap.J., 328, 304, 1988.
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