

## Peter Louis Gonthier

**DATE OF BIRTH:** April 9, 1953

**PRESENT POSITION:** Professor of Physics, Department of Physics  
Hope College, Holland, Michigan

**OTHER POSITIONS:** Affiliate Director - Hope College, Michigan Space Grant Consortium

**RESEARCH AREA:** Radio, X-Ray and Gamma-Ray Astrophysics, Neutron Stars, Pulsars

**EDUCATION:** 1980 - Ph.D. Nuclear Chemistry, Texas A&M University,  
1975 - B.A. Chemistry, Texas A&M University, College Station, Texas

**PREVIOUS POSITIONS:** 1989 - 1999 Associate Professor, Hope College  
1991-2 & 2007-8 Interim chairperson of the Department of Physics,  
Hope College, Holland, Michigan  
1990 - 1991 Guest Professor, II Physikalisches Institut,  
Giessen, Germany  
1983 - 1989 - Assistant Professor, Hope College  
1981 - 1983 Visiting Assistant Professor,  
Texas A&M University, College Station, Texas  
1980 - 1981 Post Doctoral Fellow, Max-Planck-Institut  
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**PROFESSIONAL SOCIETY MEMBERSHIP:** **American Astronomical Society** (High Energy Astrophysics Division)

### SELECTED SIGNIFICANT PUBLICATIONS:(\* undergraduate co-authors)

- “Compton scattering in strong magnetic fields: Spin-dependent influences at the cyclotron resonance”, 2014, P. L. Gonthier, M. G. Baring, M. T. Eiles\*, Z. Wadiasingh, C. A. Taylor\*, & C. J. Fitch\*, Phys. Rev. D, 90, i.d. 043014.
- “Cooling rates for relativistic electrons undergoing Compton scattering in strong magnetic fields”, 2011, M. G. Baring, Z. Wadiasingh, & P. L. Gonthier, ApJ, **733**, 61 - 90.
- “Population Synthesis of Radio and Gamma-ray Millisecond Pulsars from the Galactic Disk”, 2007, S. A. Story\*, P. L. Gonthier & A. K. Harding, ApJ, **671**, 713 - 726.
- “Spin-Dependent Cyclotron Decay Rates in Strong Magnetic Fields”, 2005, M. G. Baring, P. L. Gonthier & A. K. Harding, ApJ, **630**, 430 - 440.
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- “Galactic Populations of Radio and Gamma-Ray Pulsars in the Polar Cap Model, 2002, P. L. Gonthier, M. S. Ouellette\*, J. Berrier\*, S. OBrien\* & A. K. Harding, ApJ, **565**, 482 - 499.
- “Compton Scattering in Ultra-Strong Magnetic Fields: Numerical and Analytical Behavior in the Relativistic Regime”, 2000, P. L. Gonthier, A. K. Harding, M. G. Baring, R. M. Costello\* & C. L. Mercer\*, ApJ, **540**, 907 - 922.
- “Photon Splitting Cascades in Gamma-Ray Pulsars and the Spectrum of PSR1509-58”, 1997 A. K. Harding, M. G. Baring & P. G. Gonthier, ApJ, **476**, 246 - 260.
- “General relativistic corrections in the gamma-ray emission from pulsars”, 1994, P. L. Gonthier & A. K. Harding, ApJ, **425**, 767 - 775.