

CURRICULUM VITAE

I. Personal Data:

Name: Gregory W. Sullivan
Department: Physics
Current Position: Associate Professor of Physics
Appointment date: July 2001

Education

Undergraduate: B.S. Physics, Southern Illinois University - 1983
Graduate: M.S. Applied Phys, Southern Illinois University - 1985
M.S. Physics, University of Illinois - 1986
Ph.D. Physics, University of Illinois - 1990

Employment

2001-present Associate Prof. of Physics, University of Maryland
1995 - 2001 Assistant Professor of Physics, University of Maryland
1992 - 1995 Senior Research Associate, University of Chicago
1990 - 1992 Postdoctoral Research Associate, Univ. of Chicago
1986 - 1990 Graduate Research Assistant, University of Illinois
1985 - 1986 Teaching Assistant, University of Illinois
1982 - 1985 Research Student, Southern Illinois University

II. Research:

Selected Refereed Journal Articles (complete list available on request)

- N-16 as a calibration source for Super-Kamiokande, The Super-Kamiokande Collaboration (E. Blaufuss, et al.), Nucl. Inst. Meth. A 458 636-647, Feb 2001
- Solar ^8B and *hep* Neutrino Measurements from 1258 Days of Super-Kamiokande Data, By Super-Kamiokande Collaboration (Y. Fukuda et al), Phys.Rev.Lett. 86:5651-5655, 2001
- Constraints on Neutrino Oscillations Using 1258 Days of Super-Kamiokande Solar Neutrino Data, By Super-Kamiokande Collaboration (Y. Fukuda et al), Phys.Rev.Lett. 86:5656-5660, 2001
- Measurement of the Solar Neutrino Energy Spectrum Using Neutrino-Electron Scattering, The Super-Kamiokande Collaboration, Phys. Rev. Lett. 82 (1999) 2430

- Measurements of the Solar Neutrino Flux from Super-Kamiokande's First 300 Days, The Super-Kamiokande Collaboration, *Phys. Rev. Lett.* 81 (1998) 1158-1162
- Constraints on neutrino oscillation parameters from the measurement of day-night solar neutrino fluxes at Super-Kamiokande, The Super-Kamiokande Collaboration, *Phys. Rev. Lett.* 82 (1999) 1810-1814
- Tev Observations Of Markarian 501 With The Milagro Water Cerenkov Detector. By Milagro Collaboration (R. Atkins et al.) *Ap. J. Lett* 525:L25-L28, 1999 Nov. 1
- Evidence For Tev Emission From GRB 970417a. By Milagro Collaboration (R. Atkins et al.). *The Astrophysical Journal*, 533:L119-L122, 2000 April 20
- Observation of top quark production in $\bar{p}p$ collisions with the Collider Detector at Fermilab, The CDF Collaboration (F. Abe, et. al.), *Phys. Rev. Lett.* **74**, 2626(1995).
- Evidence for top quark production in $\bar{p}p$ collisions at $\sqrt{s} = 1.8$ TeV, The CDF Collaboration (F. Abe, et al.), *Phys. Rev. D* **50**, 3939(1994).
- Search for $\nu_{\mu} \rightarrow \nu_{\tau}$ Oscillations, E776 Collaboration (B. Blumenfeld, et. al.), *Phys. Rev. Lett.* **62**, 2237 (1989).
- Search for $W' \rightarrow e\nu$ and $W' \rightarrow \mu\nu$ in collisions at $\sqrt{s} = 1.8$ TeV, , The CDF Collaboration (F. Abe, et. al.), *Phys. Rev. Lett.* **67**, 2609(1991)
- Measurement of the ratio $\sigma B(W \rightarrow e\nu)/\sigma B(Z^0 \rightarrow e^+e^-)$ in $\bar{p}p$ collisions at $\sqrt{s} = 1.8$ TeV, The CDF Collaboration (F. Abe, et al.), *Phys. Rev. Lett.* **73**, 220(1994).
- Evidence for oscillation of atmospheric neutrinos, The Super-Kamiokande Collaboration, *Phys. Rev. Lett.* 81 (1998) 1562-1567
- Search for Muon Neutrino Oscillations in a Wide-Band Neutrino Beam, The E776 Collaboration (L. Borodovsky, et. al.), *Phys. Rev. Lett.* **68**, 274 (1992).
- Neutrino-induced upward stopping muons in Super-Kamiokande, The Super-Kamiokande Collaboration, *Phys. Lett.* B467(1999) 185
- Search for proton decay through $p \rightarrow \bar{\nu} K^+$ in a large water Cherenkov Detector, The Super-Kamiokande Collaboration, *Phys. Rev. Lett.* 83(1999) 1529

- Observation of the East-West Anisotropy of the Atmospheric Neutrino Flux, The Super-Kamiokande Collaboration, Phys. Rev. Lett. 82(1999) 5194
- Measurement of radon concentrations at Super-Kamiokande, The Super-Kamiokande Collaboration, Phys. Lett. 452(1999) 418-422
- Measurement of the flux and zenith-angle distribution of upward through-going muons by Super-Kamiokande, The Super-Kamiokande Collaboration, Phys. Rev. Lett. 82 (1999) 2644
- Calibration of Super-Kamiokande using an electron LINAC, The Super-Kamiokande Collaboration, Nucl. Instr. Meth. A421 (1999) 113-129
- Search for Proton Decay via $p \rightarrow e^+ \pi^0$ in a Large Water Cherenkov Detector, The Super-Kamiokande Collaboration, Phys. Rev. Lett. 81 (1998) 3319
- Study of the atmospheric neutrino flux in the multi-GeV energy range, The Super-Kamiokande Collaboration, Phys. Lett. B436 (1998) 33-41
- Measurement of a small atmospheric ν_μ/ν_e ratio, The Super-Kamiokande Collaboration, Phys. Lett. B433 (1998) 9-18

Invited Seminars and Colloquia

Super-Kamiokande Seminar	Univ. of Chicago	1996
Super-Kamiokande Seminar	Univ. of Maryland	1997
Super-Kamiokande Seminar	Univ. of Chicago	1997
Milagro Seminar	UCLA	1998
Milagro Seminar	U. of California, Berkeley	1998
Super-Kamiokande Colloquium	Univ. of West Virginia	1998
Super-Kamiokande Colloquium	Columbia University	1998
Invited Talk on Neutrinos	NSF future directions meeting	1998
Super-Kamiokande Colloquium	Duke University	1998
Super-Kamiokande Colloquium	University of Maryland	1998
Super-Kamiokande Colloquium	JHU Applied Phys Lab	1998
Invited Talk on Neutrinos	Aspen Winter Conference	1999
Invited Talk on Neutrinos	NSF Particle Astrophysics Symp.	1999
Super-Kamiokande Seminar	University of Michigan	1999
Super-Kamiokande Seminar	Johns Hopkins University	2000
Super-Kamiokande Seminar	University of Hawaii	2000
Invited Super-Kamiokande talk	AAS HEAD meeting	2000
Invited Super-Kamiokande talk	European Phy Soc Div Con	2001
Invited Super-Kamiokande talk	Academica Sinica, Tapei Taiwan	2001

Milagro Seminar
Invited Milagro Talk

Academica Sinica, Tapei Taiwan 2001
International Cosmic Ray Conf 2001

Research Grants

PI for NSF Grant PHY-9816963 "*Study of Solar & Atmospheric Neutrinos Using the Super-Kamiokande Detector*", 3/15/99 – 3/14/02 , \$517,358

Co-PI for NSF Grant PHY-0070968, "*Particle Astrophysics with Milagro*", 7/1/00-5/31/03 , \$1,150,000

Honors

Sigma Pi Sigma, Physics Honor Society
William C Ballowe Sr. Memorial Award in Physics - 1983
Bucy Research Fellowship - 1985
SSC Research Fellowship – 1992

III. Teaching

Courses

Physics 121, 122 Labs	Spring 1996
Physics 121, 122 Labs	Fall 1996
Physics 121, 122 Labs	Spring 1997
Physics 117A - Introduction to physics	Fall 1997
Physics 117A	Spring 1997
Physics 117A	Fall 1998
Physics 115 – Inquiry into Physics for ED majors	Spring 1999
Physics 104 – How Things Work (CORE)	Fall 1999
Physics 104	Spring 2000
Physics 104	Fall 2000
Physics 174 – Introductory Lab for Physics majors	Spring 2001
Physics 174 – Introductory Lab for Physics majors	Fall 2001
Physics 485/685 – Research Electronics	Spring 2002

Course or Curriculum Development

Physics 121/122 course review committee 1996-97
Developed labs and wrote manual for computer based labs in physics 121
Co developed new course (Phys 115) for Education Majors
Development of electricity units for phys 117A/115
Course development for CORE course Phys 104 "How Things Work"

Teaching Awards

Nominated for Panhellenic Assoc Outstanding Teacher Award – Fall 1997.

Science Inquiry Conference, Certificate of Appreciation - 1999

Advising in Research Direction

Undergraduate:

- Aaron C. Eichelberger (1996-97) (Senior Thesis on neutrino properties) Now in graduate school at Cal-Tech University
- Scott Antonille (1999-2000) Senior Thesis on neutrinos using Super-K
- Damian Blazy (2000-2002) Particle Astrophysics Research
- Matt Green (2000-2002) Particle Astrophysics Research
- Andrew Cahoon(2000-2002) Particle Astrophysics Research
- Jessica Webbon (2002) Particle Astrophysics Research

Graduate:

- Zoa Conner (Ph.D. 1997 Student from Super-K) Now a McCormick Fellow at the University of Chicago
- Elizabeth Hayes, PhD Student on Milagro – current
- David Noyes, PhD Student on Milagro – current
- Dusan Turcan, PhD Student on Super-Kamiokande - current

Postdoctoral:

- Eugene Guillian – Super-Kamiokande research in neutrino oscillations
- Andrew Smith – Research in Gamma-Ray astronomy –Milagro experiment
- Erik Blaufuss - Research in Gamma-ray astronomy & neutrino oscillations

Extension Activities

Outreach lecture to the Baltimore Astronomical Society - June 1996
Interview for Australian TV on the Sun and Super-K 1998
1999 elementary school Science Inquiry Conference
Intel (formerly Westinghouse) Science Talent Search Reviewer – 2000-02
NSF “QuarkNet” site. Outreach to HS Teachers - 2002

IV. Service

Professional Service

NSF proposal reviewer (~6/year) – 1997,1998,1999,2000,2001
DoE proposal reviewer – 1998,1999
NSF/DoE Scientific review of a proposed dark matter experiment – 1998
NSF national review panel for HiRes Detector – 1999
AIP review committee on electronic publishing - Dec. 1996
DoE Scientific national review panel for KAMLAND Experiment, Jan. 2000
DoE/NSF National review panel for VERITAS Experiment, April 2000
NSF CAREER proposal review committee for EPP 1999
Chair, NSF CAREER proposal review committee for EPP 2000

University Service

University Faculty Affairs Committee 1997,1998,1999,2000,2001,2002

Physics Salary Committee 1999,2000

Responsible for Undergrad TA assignments in Physics dept.

1998,1999,2000,2001,2002

Physics 121/122 course review committee 1996-97

Physics Council Committee 1996,1997,1998,1999

Physics Representative at Technology & Innovation Open House -Oct., 1996

Selection Comm for CMPS Dean's Award for Outstanding teacher – 1999

Representative for physics graduate student open house 1998,1999

Speaker for Undergraduate Physics student recruitment 2000

PhD dissertation committees 1997,1998,2000

Physics Qualifying Exam problem/grading 1999,2000,2002

Campus Parking advising committee 2001,2002

Campus Research Council Committee 2001,2002