

**CURRICULUM VITAE**  
Rathnayaka M. Gunasingha

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**Office Address:**

Room 129  
Physics Department  
Southern University, Baton Rouge  
LA 70813.

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**CURRENT POSITION**

Assistant Professor of Physics (Research) – High Energy Physics, Physics  
Department, Southern University, Baton Rouge, LA 70813.

**FIELD OF INTEREST AND SKILLS**

1. Research in Particle and Nuclear physics, Neutrino physics, Cosmic-rays and Astroparticle physics;
2. Software development for detector simulation and data analysis in experimental high energy physics and Astrophysics;
3. Electronics: Analog and Digital electronics, Operation of transistors, Integrated Circuits, Logical operations and functions, Logic families, Flip-Flop and clock generators, counters, registers, and CAMAC systems for data acquisition systems etc.;
4. Beam Transport codes: Geant3.21, Geant4, EGS4;
5. Detector Technology: BGO detectors, Liquid Scintillating Detectors, Scintillating plate and fiber calorimeters, optical design and radiation damages;
6. Microcomputer hardware and peripherals: Study of internal operation of microprocessors, bus systems, Disk drives (operation of floppy and Hard disk drives), recovering lost data, Expanding and Upgrading microcomputers, Installing and testing peripherals devices and computer diagnostics etc.

**EDUCATION**

1. Ph.D. in Experimental Particle Physics, Louisiana State University, Baton Rouge, LA 70803. (1995);
2. M.S. in Physics, Louisiana State University, May 1990;

3. Diploma in Microcomputers and Microprocessors;
4. B.Sc.(Special) (Hons.), University of Peradeniya, Sri Lanka.(1980).

### **THESIS**

“ Search for Neutrino Oscillations in the Appearance Channel  $\bar{\nu}_\mu \rightarrow \bar{\nu}_e$  and Measurements of Neutrino Carbon Cross Sections in Liquid Scintillation Neutrino Detector (LSND)”.

### **ACADEMIC HONORS**

1. 1996 Louis Rosen Prize – For the outstanding Ph.D. thesis based on experimental or theoretical research involving Los Alamos Neutron Scattering Center (LANCE), Los Alamos National Laboratory, Los Alamos, NM 87545.

### **MEMBERSHIPS AND OTHER POSITIONS**

1. Member of the American Physical society;
2. Assistant Radiation Safety Officer ( 1999 – Present ) , Radiation Safety Office, Southern University, Baton Rouge, LA 70813;
3. Adjunct Professor of Physics (2000 – Present ) , Baton Rouge Community College, Baton Rouge, LA 70806;
4. System Administrator ( 1998 – Present) for the LINUX cluster for High Energy Physics Division.

### **PROFESSIONAL EXPERIENCE**

1. From Dec. 1996 – August 1997, Research Physicist, Radiation Oncology, Wayne State University, Detroit, MI;
2. From March 1996 – Nov 1996, Postdoctoral Research Associate, University of California, Riverside, CA; Visiting Scientist, Los Alamos National Laboratory, Los Alamos, New Mexico;
3. From Sept. 1995 – Feb. 1996, Postdoctoral Research Associate, Louisiana State University, Baton Rouge, LA. Visiting Scientist, Los Alamos National Laboratory, Los Alamos, New Mexico;
4. From Sept. 1992 – Sept. 1995, Graduate Research Assistant, Louisiana State University, in residence at Los Alamos National Laboratory;
5. From August. 1988 – August. 1992, Teaching Assistant, Louisiana State University, Baton Rouge, LA;

6. From 1980 – July 1988, Lecturer in Physics, Open University of Sri Lanka & Peradeniya University, Sri Lanka.

### **COURSES TAUGHT**

1. Introductory Calculus-based Physics;
2. Introductory Non-Calculus Physics;
3. Physics for non-science majors;
4. Introductory physics laboratory;
5. Graduate Classical Mechanics;
6. Developed teaching aids, audiovisual materials for the students in distance educations;
7. Planned and conducted demonstration classes for students with different level of background knowledge and various skill levels.

### **COMPUTING EXPERIENCE**

1. Proficiency in UNIX, VMS, LINUX and MS-DOS, operating systems on wide variety of platforms such as SGI 4D440s, different VAX stations (2000, 3100, 4000 and 5000), 80386, Pentium machines, etc;
2. Proficiency in programming with FORTRAN, C and C++ Languages and Perl and Shell programming;
3. Experience in the use of different CERN packages, particularly KUIP, ZEBRA, HIGZ, PAW, HBOOK;
4. Proficiency in using Beam Transport codes in nuclear and particle physics EGS4, GEANT 3.21 and GEANT4;
5. Proficiency in using data analysis package ROOT in nuclear and particle physics;
6. Performed data analysis on a large scale in nuclear physics and particle physics experiments;
7. Experience with computer simulations for large scale nuclear and particle physics experiments;

8. Experience in word processing, text processing (LATEX), electronic mail, statistics, X-windows, Adobe illustrator, NCSA WWW server, Netscape, and hands-on experience with dial-in software (Kermit, term, ftp);
9. Trouble shooting of microcomputers and computer peripherals;
10. Word, PowerPoint, Windows 3.1/95/98/2000/XP/ME.

### **PARTICIPATION IN EXPERIMENTS**

1. Participant in Experiment 1173 , "Liquid Scintillator Neutrino Detector(LSND)". STATUS: Approved at LAMPF;
2. Participant in Experiment 1, "Solenoidal Detector Collaboration (SDC)". STATUS: Approved at the Superconducting Super Collider (SSC), was not funded;
3. Participant in Research involving the IceCube Project: "IceCube is a one- cubic-kilometer international high-energy neutrino observatory being built and installed in the clear deep ice below the South Pole Station". Approved and funded by NSF;
4. Participant in Advanced Thin Ionization Calorimeter ( ATIC) project. ATIC is a high energy cosmic ray balloon borne experiment at South Pole. Approved and funded by NASA;
5. Participant in Research and Development in Oak Ridge Large Neutrino Detector (ORLaND ) project.

## PUBLICATIONS

### RENOWNED PAPERS(500+ Cites)

1. **Evidence for  $\bar{\nu}_\mu \rightarrow \bar{\nu}_e$  oscillation from LSND experiment at LAMPF. *Physical Review Letters*, **77**, p3082-3085(1996),nucl-ex/9605003.**  
C. Athanassopoulos, L. B. Auerbach, R. L. Burman, I. Cohen, D. O. Caldwell, B. D. Dieterle, J. B. Donahue, A. M. Eisner, A. Fazely, F. J. Federspiel, G. T. Garvey, M. Gray, **R. M. Gunasingha**, R. Imlay, K. Johnston, H. J. Kim, W. C. Louis, R. Majkic, J. Margulies, K. McIlhany, W. Metcalf, G. B. Mills, R. A. Reeder, V. Sandberg, D. Smith, I. Stancu, W. Strossman, R. Tayloe, G. J. VanDalen, W. Vernon, N. Wadia, J. Waltz, Y-X. Wang, D. H. White, D. Works, Y. Xiao, S. Yellin, (LSND Collaboration).
2. **Results on  $\nu_\mu \rightarrow \nu_e$  Neutrino Oscillations from LSND Experiment. *Physical Review Letters*, **81**, 1774-1777 (1998),e-Print Archive: nucl-ex/9709006**  
C. Athanassopoulos, L.B.Auerbach,R.L. Burman,D.O. Caldwell,E.D. Church, I.Cohen, J.B. Donahue, A. Fazely, F.J. Federspiel, G.T. Garvey, **R.M. Gunasingha**, R.Imlay, K. Johnston, H.J. Kim, W.C. Louis, R. Majkic, K. McIlhany, W. Metcalf,G.B. Mills, R.A. Reeder, V. Sandberg, D. Smith, I. Stancu W. Strossman, R.Tayloe, G.J. VanDalen, W. Vernon, N. Wadia, J. Waltz, D.H. White, D. Works,Y. Xiao, S. Yellin (LSND Collaboration).

### FAMOUS PAPERS (100 – 499 Cites)

3. **Evidence for Neutrino Oscillations from the observation of  $\bar{\nu}_e$  Appearance in a  $\bar{\nu}_\mu$  Beam, *Phys. Rev. D.* **64**, 112007 (2001), hep-ex/0104049.**  
A. Aguilar, L.B. Auerbach, R.L. Burman, D.O. Caldwell, E.D. Church, A.K. Cochran, J.B. Donahue, A. Fazely, G.T. Garvey, **R.M. Gunasingha**, R. Imlay, W.C. Louis, R. Majkic, A. Malik, W. Metcalf, G.B. Mills, V. Sandberg, D. Smith, I. Stancu, M. Sung, R. Tayloe, G.J. VanDalen, W. Vernon, N. Wadia, D.H. White, S. Yellin.
4. **Results on  $\nu_\mu \rightarrow \nu_e$  Neutrino Oscillations from pion decay in flight neutrinos. *Phys. Rev. C* **58**, 2489-2511,(1998), e-Print Archive: nucl-ex/9706006.**  
LSND Collaboration: C. Athanassopoulos, L.B. Auerbach, R.L. Burman, D.O. Caldwell, E.D. Church, I. Cohen, B.D. Dieterle, J.B. Donahue, A. Fazely, F.J. Federspiel, G.T. Garvey, **R.M. Gunasingha**, R. Imlay, K. Johnston, H.J. Kim, W.C. Louis, R. Majkic, J. Margulies, K. McIlhany, W. Metcalf, G.B. Mills, R.A. Reeder, V. Sandberg, D. Smith, I. Stancu, W. Strossman, R. Tayloe, G.J. VanDalen, W. Vernon, N. Wadia, J. Waltz, D.H. White, D. Works, Y. Xiao, S. Yellin.

5. **Evidence for Neutrino Oscillations from Muon Decay at Rest Physical Review C,54,2685-2708(1996),e-Print Archive: nucl-ex/9605001.**  
C. Athanassopoulos, L. B. Auerbach, R. L. Burman, I. Cohen, D. O. Caldwell, B. D. Dieterle, J. B. Donahue, A. M. Eisner, A. Fazely, F. J. Federspiel, G. T. Garvey, M. Gray, **R. M. Gunasingha**, R. Imlay, K. Johnston, H. J. Kim, W. C. Louis, R. Majkic, J. Margulies, K. McIlhany, W. Metcalf, G. B. Mills, R. A. Reeder, V. Sandberg, D. Smith, I. Stancu, W. Strossman, R. Tayloe, G. J. VanDalen, W. Vernon, N. Wadia, J. Waltz, Y-X. Wang, D. H. White, D. Works, Y. Xiao, S. Yellin (The LSND Collaboration).
6. **Candidate events in a search for  $\bar{\nu}_\mu \rightarrow \bar{\nu}_e$  Oscillations, Physical Review Letters, 75, 14, p2650-2653(1995), nucl-ex/9504002.**  
C. Athanassopoulos, L. B. Auerbach, R. Bolton, B. Boyd, R. L. Burman, D. O. Caldwell, I. Cohen, J. B. Donahue, A. M. Eisner, A. Fazely, F. J. Federspiel, G. T. Garvey, M. Gray, **R. M. Gunasingha**, V. Highland, R. Imlay, K. Johnston, W. C. Louis, A. Lu, J. Margulies, K. McIlhany, W. Metcalf, R. A. Reeder, V. Sandberg, M. Schillaci, D. Smith, I. Stancu, W. Strossman, G. J. VanDalen, W. Vernon, Y-X. Wang, D. H. White, D. Whitehouse, D. Works, Y. Xiao.

#### KNOWN PAPERS (10 –49 Cites)

7. **Measurement of charged current reactions of  $\nu_\mu$  on  $^{12}\text{C}$ . Phys. Rev. C 66, 015501 (2002),eprint:nucl-ex/0203011.**  
L.B. Auerbach, R.L. Burman, D.O. Caldwell, E.D. Church, J.B. Donahue, A. Fazely Fazely, G.T. Garvey, **R.M. Gunasingha**, R. Imlay, W.C. Louis, R. Majkic, A. Malik, W. Metcalf, G.B. Mills, V. Sandberg, D. Smith, I. Stancu, M. Sung, R. Tayloe, G.J. VanDalen, W. Vernon, N. Wadia, D.H. White, S. Yellin.
8. **Measurement of Charged Current Reaction of  $\nu_e$  on  $^{12}\text{C}$  Physical Review C, 64, 065501 (2001),hep-ex/0105068.**  
LSND Collaboration: L.B. Auerbach, R.L. Burman, D.O. Caldwell, E.D. Church, J.B. Donahue, A. Fazely, G.T. Garvey, **R.M. Gunasingha**, R. Imlay, W.C. Louis, R. Majkic, A. Malik, W. Metcalf, G.B. Mills, V. Sandberg, D. Smith, I. Stancu, M. Sung, R. Tayloe, G.J. VanDalen, W. Vernon, N. Wadia, D.H. White, S. Yellin.
9. **Measurement of electron-neutrino electron elastic scattering, Physical Review D ,63,112001(2001), e-print: hep-ex/0101039**  
LSND Collaboration: L.B. Auerbach, R.L. Burman, D.O. Caldwell, E.D. Church, J.B. Donahue, A. Fazely, G.T. Garvey, **R.M. Gunasingha**, R. Imlay, W.C. Louis, R. Majkic, A. Malik, W. Metcalf, G.B. Mills, V. Sandberg, D. Smith, I. Stancu, M. Sung, R. Tayloe, G.J. VanDalen, W. Vernon, N. Wadia, D.H. White, S. Yellin.

10. **Measurements of the reactions  $^{12}\text{C}(\nu_{\mu}, \mu^{-})N_{g.s.}$  and  $^{12}\text{C}(\nu_{\mu}, \mu^{-})^{12}\text{X}$ . *Physical Review C*, **56**,2806-2819(1997),nucl-ex/9705002.**  
 C. Athanassopoulos, L. B. Auerbach, R. L. Burman, I. Cohen, D. O. Caldwell, B. D. Dieterle, J. B. Donahue, A. M. Eisner, A. Fazely, F. J. Federspiel, G. T. Garvey, M. Gray, **R. M. Gunasingha**, R. Imlay, K. Johnston, H. J. Kim, W. C. Louis, R. Majkic, J. Margulies, K. McIlhany, W. Metcalf, G. B. Mills, R. A. Reeder, V. Sandberg, D. Smith, I. Stancu, W. Strossman, R. Tayloe, G. J. VanDalen, W. Vernon, N. Wadia, J. Waltz, Y-X. Wang, D. H. White, D. Works, Y. Xiao, S. Yellin.
11. **Measurements of the reaction  $^{12}\text{C}(\nu_{\mu}, \mu^{-})X$  near threshold. *Physical Review C*, **51**, 1065-1069(1995), nucl-th/9410039.**  
 M. Albert, C. Athanassopoulos, L.B. Auerbach, D. Bauer, R. Bolton, B. Boyd, R.L. Burman, I. Cohen, D.O. Caldwell, B.D. Dieterle, J. Donahue, A.M. Eisner, A. Fazely, F.J. Federspiel, G.T. Garvey, **R.M. Gunasingha**, V. Highland, J.E. Hill, R. Imlay, K. Johnston, W.C. Louis, A. Lu, A.K. Mann, J. Margulies, K. McIlhany, W. Metcalf, R.A. Reeder, V. Sandberg, M. Schillaci, D. Smith, I. Stancu, W. Strossman, M.K. Sullivan, G.J. VanDalen, W. Vernon, Y.X. Wang, D.H. White, D. Whitehouse, D. Works, Y. Xiao, S. Yellin.
12. **The Liquid Scintillator Neutrino Detector and LAMPF Neutrino Source (NIM A388,149-172 (1997)),nucl-ex/9605002.**  
 C. Athanassopoulos, L.B. Auerbach, D. Bauer, R.D. Bolton, R.L. Burman, I. Cohen, D.O. Caldwell, B.D. Dieterle, J.B. Donahue, A.M. Eisner, A. Fazely, F.J. Federspiel, G.T. Garvey, M. Gray, **R.M. Gunasingha**, V. Highland, R. Imlay, K. Johnston, H.J. Kim, W.C. Louis, A. Lu, J. Margulies, G.B. Mills, K. McIlhany, W. Metcalf, R.A. Reeder, V. Sandberg, M. Schillaci, D. Smith, I. Stancu, W. Strossman, R. Tayloe, G.J. VanDalen, W. Vernon, Y-X. Wang, D.H. White, D. Whitehouse, D. Works, Y. Xiao, S. Yellin.

#### **OTHER PAPERS:**

13. **"The ATIC Experiment as a Testbed for the ACCESS Baseline Calorimeter"**, J. Isbert, J. H. Adams Jr., J. Authement, G. L. Bashindzhagyan, P. R. Boberg, C. Dion-Schwarz, J. Coleman, S. Dong, A. R. Fazely, O. Ganel, **R. Gunasingha**, T. G. Guzik, L. Khein, K.C. Kim, H. J. Kim, S. K. Kim, I. M. Koo, R. A. Kroeger, Y. I. Kwon, S. H. Lee, R. Lockwood, A. McMorris, L. Mock, C. Oubre, M. I. Panasyuk, J. Peck, G. A. Samsonov, W. K. H. Schmidt, E. S. Seo, R. Sina, J. Z. Wang, J. P. Wefel, E. I. Won, J. Wu, V. I. Zatsepin, Space Technology and Applications International Forum-1999, Ed. M. El- Genk, ( N.Y. ,1999, American Institute of Physics, CP 458) 266-271, 1999.

14. **Measurements of the reactions  $^{12}\text{C}(\nu_e, e^-)^{12}\text{N}_{g.s.}$  and  $^{12}\text{C}(\nu_e, e^-)^{12}\text{N}^*$ . *Physical Review C*, **55**, 2078 (1997), e-Print Archive: [nucl-ex/9705001](#).**  
 C. Athanassopoulos, L. B. Auerbach, R. L. Burman, I. Cohen, D. O. Caldwell, B. D. Dieterle, J. B. Donahue, A. M. Eisner, A. Fazely, F. J. Federspiel, G. T. Garvey, M. Gray, **R. M. Gunasingha**, R. Imlay, K. Johnston, H. J. Kim, W. C. Louis, R. Majkic, J. Margulies, K. McIlhany, W. Metcalf, G. B. Mills, R. A. Reeder, V. Sandberg, D. Smith, I. Stancu, W. Strossman, R. Tayloe, G. J. VanDalen, W. Vernon, N. Wadia, J. Waltz, Y-X. Wang, D. H. White, D. Works, Y. Xiao, S. Yellin.
15. **Radiation Damage Study for the SDC Barrel Calorimeter," *J. Radiat. Phys. Chem* **41**, 243-252 (1993).**  
 A. R. Fazely, R. L. Imlay, **R.M.Gunasingha**, J. Lim, S. Khosravi, R. R. McNeil, G. McMills, W. J. Metcalf, J.C. Courtney, R. Tashakkori, and B. J. Vegara.
16. **Measurements of the reaction  $^{12}\text{C}(\nu_\mu, \mu^-)X$  near threshold. *Physical Review C*, **51**, 1065-1069(1995), [nucl-th/9410039](#).**  
 M. Albert, C. Athanassopoulos, L.B. Auerbach, D. Bauer, R. Bolton, B. Boyd, R.L. Burman, I. Cohen, D.O. Caldwell, B.D. Dieterle, J. Donahue, A.M. Eisner, A. Fazely, F.J. Federspiel, G.T. Garvey, **R.M. Gunasingha**, V. Highland, J.E. Hill, R. Imlay, K. Johnston, W.C. Louis, A. Lu, A.K. Mann, J. Margulies, K. McIlhany, W. Metcalf, R.A. Reeder, V. Sandberg, M. Schillaci, D. Smith, I. Stancu, W. Strossman, M.K. Sullivan, G.J. VanDalen, W. Vernon, Y.X. Wang, D.H. White, D. Whitehouse, D. Works, Y. Xiao, S. Yellin.
17. **First results from ATIC beam-test at CERN, ORIGIN AND ACCELERATION OF COSMIC RAYS ADVANCES IN SPACE RESEARCH **27 (4): 819-824, 2001****  
 Ganel O, Adams JH, Ahn EJ, Ahn HS, Ampe J, Bashindzhagyan G, Case G, Chang J, Ellison S, Fazely A, Gould R, Granger D, **Gunasingha R**, Guzik TG, Han YJ, Isbert J, Kara T, Kim HJ, Kim KC, Kim SK, Kwon Y, Lemczyk T, Oubre C, Panasyuk M, Price B, Samsonov G, Schmidt WKH, Sen M, Seo ES, Sina R, Sokolskaya N, Stewart M, Toptygin A, Voronin A, Wagner D, Wang JZ, Wefel JP, Wu J, Zatsepin V, Zigura A
18. **"Search for  $\pi^0 \rightarrow \nu_\mu \bar{\nu}_\mu$  Decay in LSND" *Physical Review Letters*, Volume **92**, Number **9** (2004) 1774-1777, e-print [hep-ex/0310060](#)**  
 L.B. Auerbach, R.L. Burman, D.O. Caldwell, E.D. Church, A.K. Cochran, J.B. Donahue, A. Fazely, G.T. Garvey, **R.M. Gunasingha**, R. Imlay, G. Kahrimanis, W.C. Louis, R. Majkic, A. Malik, K.L. McIlhany, W.J. Metcalf, G.B. Mills, D. Rupnik, V.D. Sandberg, D. Smith, R.F. Somodi, I. Stancu, W.D. Strossman, M. Sung, R. Tayloe, G.J. VanDalen, W. Vernon, N. Wadia, D.H. White, S. Yellin, and H. Yi (LSND Collaboration)

19. **"ORLAND: A PROPOSED NEUTRINO FACILITY AT THE OAK RIDGE NATIONAL LABORATORY"**

F.T. Avignone, B.D. Anderson, T.C. Awes, S. Berridge, E. Bilpuch, C. Britton, W. Bryan, W.M. Bugg, R.L. Burman, J. Busenitz, H.K. Carter, L. Chatterjee, V. Cianciolo, A.K. Cochran, H.O. Cohn, M.V. Danilov, L. De Braekeleer, P. Degtyarenko, Yu.V. Efremenko, M.A. Elaasar, A.R. Fazely, S. Frank, T.A. Gabriel, C.R. Gould, V. Gudkov, **R.M. Gunasingha**, T. Handler, E.L. Hart, R.L. Imlay, U. Jagadish, Yu.A. Kamyshkov, E. Khosrovi, D.D. Koetke, C. Lane, R.W. Manweiler, W.J. Metcalf, A. Mezzacappa, L.W. Mo, V.Z. Nosik, T.A. Nunamaker, S. Nussinov, A. Piepke, F. Plasil, J. Reidy, C. Rosenfeld, D. Smith, I. Stancu, T.D.S. Stanislaus, R. Steinberg, R. Svoboda, R. Tashakkori, W. Tornow, G. VanDalen, J. Walker, J.W. Watson, A. Wintenberg, J. Wolf, D.H. Wright, O.Ya. Zeldovich, W.M. Zhang (South Carolina U. & Kent State U. & Tennessee U. & Duke U. & North Carolina Central U. & Los Alamos & Oak Ridge & Louisiana State U. & Moscow, ITEP & Jefferson Lab & New Orleans U. & North Carolina State U. & Valparaiso U., Indiana & Pennsylvania U. & Virginia Tech.. & Tel Aviv U. & Caltech, Kellogg Lab & Mississippi U.), P Bandyopadhyay (Embry-Riddle Aeronautical U. & UC, Riverside & TRIUMF). 2000. **Prepared for 2nd International Conference on Nonaccelerator New Physics (NANP 99), Dubna, Moscow Region, Russia, 28 Jun - 3 Jul 1999. Published in Phys.Atom.Nucl.63:1007-1011,2000, Yad.Fiz.63:1082-1086,2000.**

20. **" ORLAND: A LARGE NEUTRINO DETECTOR FACILITY AT THE SPALLATION NEUTRON SOURCE AT THE OAK RIDGE NATIONAL LABORATORY."**

By F.T. Avignone, B.D. Anderson, S. Berridge, E. Bilpuch, W.M. Bugg, R.L. Burman, J. Busenitz, H.K. Carter, L. Chatterjee, A.K. Cochran, L. De Braekeleer, Yu.V. Efremenko, M.A. Elaasar, A.R. Fazely, T.A. Gabriel, C.R. Gould, V. Gudkov, **R. Gunasingha**, E.L. Hart, T. Handler, R.L. Imlay, Yu.A. Kamyshkov, E. Khosrovi, D.D. Koetke, C. Lane, R.W. Mainweiler, W.J. Metcalf, A. Mezzacappa, F. Plasil, A. Piepke, J. Reidy, C. Rosenfeld, D. Smith, I. Stancu, T.D.S. Stanislaus, R. Steinberg, R. Svoboda, R. Tashakkori, W. Tornow, G. VanDalen, J.W. Watson, J. Wolf, D.H. Wright, W.M. Zhang (Caltech, Kellogg Lab & Drexel U.& Duke U. & Triangle U. Nucl. Lab., Durham & Embry-Riddle Aeronautical U. & Kent State U. & Los Alamos & Louisiana State U. & North Carolina State U. & Oak Ridge & Southern U. & New Orleans U. & TRIUMF & Alabama U. & UC, Riverside & Mississippi U. & South Carolina U. & Tennessee U. & Valparaiso U., Indiana). Nov 1998. **Prepared for International Symposium on Perspectives in Nuclear Physics, Nassau, Bahamas, 13-17 Nov 1998. In \*Paradise Island 1998, Perspectives in nuclear physics\* 25-34.**

21. **New Results on Electron-Neutrino and Muon-Neutrino Carbon Scattering at LSND"**, R.L. Imlay, et al.; Nucl. Phys. A 629, 1-2 C531-C537 (1997).

## SELECTED PROCEEDINGS AND TALKS

1. **Preliminary Results of the CNO Concentration in Cosmic Ray Spectrum as Measured from the ATIC Experiment.** American Physical Society Annual Meeting, Albuquerque, New Mexico, 2002, **R. M. Gunasingha** for the ATIC Collaboration.
2. **Advanced Thin Ionization Calorimeter (ATIC) update,** American Physical Society Annual Meeting, Albuquerque, New Mexico, 2002, With H. S. Ahn et. al.
3. **A Multiple Neutrino Detector at the Neutrino Spallation Source,** American Physical Society Annual Meeting, Albuquerque, New Mexico, 2002, A. R. Fazely and **R. M. Gunasingha**.
4. **The CNO Concentration in Cosmic Ray Spectrum as measured from the ATIC experiment,** Proceedings of ICRC 2001, 1595, Copernicus Gesellschaft 2001 A. R. Fazely and **R. M. Gunasingha** for the ATIC Collaboration.
5. **First Flight of the Advanced Thin Ionization Calorimeter (ATIC) Balloon Experiment,** American Physical Society Annual Meeting, Washington D.C., April 2001, With E. S. Seo et.al.
6. **Performance of the Advanced Thin Ionization Calorimeter (ATIC),** American Physical Society Annual Meeting, Washington D.C., April 2001, With S. Naqvi et. al.
7. **ORLaND - Oak Ridge Laboratory for Neutrino Detectors,** Proceedings of 17<sup>th</sup> winter workshop on Nuclear Dynamics (2001) 000-000, Park City, Utah, March 2001, With F. Plasil et. al.
8. **Preliminary results from the first flight of ATIC:  $Z < 8$  spectra,** Proceedings of ICRC 2001, 1599, Copernicus Gesellschaft 2001 With J. H. Adams et. al.
9. **Preliminary results from the first flight of ATIC,** Proceedings of ICRC 2001, 1601, Copernicus Gesellschaft 2001 With E. S. Seo et. al.
10. **The First Flight of ATIC: preliminary results on Li, Be, B nuclei,** Proceedings of ICRC 2001, 1605, Copernicus Gesellschaft 2001, With V. I. Zatsepin et. al.
11. **The ATIC experiment: first balloon flight,** Proceedings of ICRC 2001, 2111, Copernicus Gesellschaft 2001, With J. P. Wefel et. al.
12. **High energy electron and gamma-ray detection with ATIC,** Proceedings of ICRC 2001, 2115, Copernicus Gesellschaft 2001, with J. Chang et.al.

13. **ATIC Flight Data Processing**, proceedings of ICRC 2001, 2119, Copernicus Gesellschaft 2001, With H. S. Ahn et.al.
14. **The ATIC experiment: performance of the scintillator hodoscope and the BGO calorimeter**, Proceedings of ICRC 2001, 2123, Copernicus Gesellschaft 2001, With J. Isbert et.al.
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