Curriculum Vita and Publication List

Stephen J. Wallace
Full Professor

I. Education:

B.S.	Case Institute of Technology	1961	Engineering
M.S.	University of Washington, Seattle	1969	Physics
Ph.D.	University of Washington, Seattle	1971	Physics

II. Experience in Higher Education:

Univ. of Washington, Seattle	1968-71	Predoctoral Research Associate
University of Florida	1971-72	Research Associate
Harvard University	1972-74	Research Associate
University of Maryland	1974-78	Assistant Professor
University of Maryland	1978-83	Associate Professor
University of Maryland	1983-	Full Professor
University of Maryland	1994-99	Chair, Department of Physics

III. Experience Other Than in Higher Education:

Boeing Co., Seattle, WA	1961-68	Flight Dynamics and Control Systems Analyst* (Missile Div.)

*Responsibilities included dynamical modelling and development of computer simulations of missile flights; stability analyses of control system dynamics; general mathematical modelling and applied mechanics; research into the stabilization of multicomponent coupled systems.

Los Alamos Scientific Lab Los Alamos, NM	1974-	Visiting Staff Member
Nat. Bureau of Standards, Gaithersburg, MD	1981-82	Sabbatical Leave
Theor. Div., Los Alamos Natl. Lab Los Alamos, NM	1988	Consultant (Sabbatical Leave)
Inst. of Theor. Physics, U. of Utrecht The Netherlands	1989	Vis. Professor (Sabbatical Leave)
Hebrew U. of Jerusalem, Israel	1989	Scheinbrun Vis. Professor (Sabbatical Leave)
Thomas Jefferson National Laboratory Newport News, VA	1999-00	Sabbatical Leave

IV. Publications:

See below.

V. Professional Activities:

American Physical Society
Referee for Physical Review A, C, D, E; Annals of Physics; Nuclear Physics, Physical Review Letters, Physics Letters, Journal of Physics G, Physica Scripta, National Science Foundation, and U.S. Dept. of Energy
Member, LAMPF Program Advisory Committee (LPAC) 1982-84
Chairman, High Resolution Proton Spectrometer Subcommittee (LPAC) 1983-84
Member, Energetic Pion Channel and Spectrometer Subcommittee (LPAC)
Guest Worker, Radiation Physics Division, National Bureau of Standards
Consultant on Proposal for CW Electron Microtron Nuclear Physics Facility (NBS proposal)
Editorial Board, Physical Review C, 1989-91
DOE Review Panel for Los Alamos Meson Physics Facility, 1988
Member, LAMPF Program Advisory Committee, 1990 -
Chairman of Nucleon Physics Subcommittee, 1990 -
NSF Site Review Panel for Indiana University Cyclotron Facility, 1990 -
Organizing Committee for Workshop, "From Fundamental Fields to Nuclei", held in Boulder, CO, Sept. 1990
Member, Organizing Committee for Workshop on "Relativity in the Deuteron and Few Body Systems", sponsored by Inst. of Nuclear Theory and CEBAF, held in Newport News, VA, Sept. 1993
Member, Executive Committee, American Physical Society, Nuclear Physics Division, 1993-95
Nuclear Science Advisory Committee subcommittee on NSF-sponsored National User Facilities for Nuclear Physics, Dec. 1992–Feb. 1993
Member, NSF Committee of Visitors for Physics Division, 1994
Member, NSF Panel in Nuclear Theory, 1997-98
Member, Bonner Prize Committee of American Physical Society, Division of Nuclear Physics, 1997-98

VI. Honors and Awards:

Leonard Case Honor Scholarship, 1957
Boeing Company Ph.D. Fellowship, 1968
N.D.E.A.-IV Fellowship, 1970
Nominated for Outstanding Young Scientist Award, 1978 and 1979
U. of Maryland General Research Board Research Support Award, 1988-89
Appointed Donders Chair, Inst. of Theoretical Physics, Univ. of Utrecht, The Netherlands, 1989
Fellow of American Physical Society, 1990

A. Papers Published

Physics research:

1. EIKONAL METHOD IN ATOMIC COLLISIONS, L. Wilets and S. J. Wallace, Phys. Rev. **169** (1968), 84-91.
2. EIKONAL EXPANSION, S. J. Wallace, Phys. Rev. Lett. **27** (1971), 622-625.
3. EIKONAL EXPANSION, S. J. Wallace, Ann. Phys. (N.Y.) **78** (1973), 190-257.
4. FORM FACTORS ATOMIC POTENTIALS AND ELASTIC SCATTERING, F. E. Riewe, S. J. Wallace, and A. E. S. Green, Phys. Rev. **A7** (1973), 880-886.
5. ELECTRON IMPACT IONIZATION OF Ne AND Ar IN THE EIKONAL AND BORN APPROXIMATIONS, S. J. Wallace, R. A. Berg and A. E. S. Green, Phys. Rev. **A7** (1973), 1616-1629.
6. HIGH ENERGY EXPANSION OF SCATTERING AMPLITUDES, S. J. Wallace, Phys. Rev. **D8** (1973) 1846-1863.
7. COMMENT ON THE EQUIVALENCE OF EIKONAL EXPANSION AND INTEGRAL EQUATION METHODS FOR DETERMINING CORRECTIONS TO THE GLAUBER APPROXIMATION, S. J. Wallace, Phys. Rev. **D8** (1973), 1934-1937.
8. MULTIPLE SCATTERING EIKONAL EXPANSION, S. J. Wallace, Phys. Rev. **C8** (1973), 2043-2055.
9. CORRESPONDENCE OF PARTIAL WAVE AND IMPACT PARAMETER REPRESENTATIONS, S. J. Wallace, Phys. Rev. **D9** (1974), 406-407.
10. HIGH ENERGY EXPANSION FOR NUCLEAR MULTIPLE SCATTERING, S. J. Wallace, Phys. Rev. **C12** (1975), 179-193.
11. COMPARISON OF EXACT AND APPROXIMATE MULTIPLE SCATTERING CALCULATIONS, Y. Alexander, S. J. Wallace, and D. A. Sparrow, Nucl. Phys. **A280** (1977), 285-307.
12. ELASTIC $p-^4He$ SCATTERING NEAR 1 GeV, S. J. Wallace and Y. Alexander, Phys. Rev. Lett. **38** (1977), 1269-1272.
13. RELATIVISTIC EIKONAL EXPANSION, S. J. Wallace and J. McNeil, Phys. Rev. **D16** (1977), 3565-3580.
14. IS THE ENERGY DEPENDENCE IN pp SCATTERING DUE TO SPIN?, J. A. McNEIL and S. J. Wallace, Phys. Rev. Lett. **42** (1979) 17-20.
15. SPIN DEPENDENCE OF FERMION-FERMION SCATTERING IN THE EIKONAL LIMIT, S. J. Wallace and J. McNeil, Phys. Rev. **D19** (1979) 3145- 3156.
16. LOCAL FIELD CORRECTIONS IN π-NUCLEUS SCATTERING, M. K. Banerjee and S.J. Wallace Phys. Rev. **C21** (1980), 1996-2009.
17. CORRELATIONS EFFECTS AND 1.05 GeV $p-^4He$ ELASTIC SCATTERING, S. J.Wallace and Y. Alexander, Phys. Lett. **90B** (1980), 346-349.

18. ENERGY DEPENDENCE AND POLARIZATION OF HIGH ENERGY pp SCATTERING, J. A.McNeil and S. J. Wallace, Phys. Rev. **D21** (1980), 1434-1438.

19. DO QUASI-FREE REACTION MECHANISMS EXPLAIN REACTION CROSS SECTIONS IN INTERMEDIATE ENERGY PROTON-NUCLEUS SCATTERING?, Y. Alexander, J. W.Van Orden, E. F. Redish and S. J. Wallace, Phys. Rev. Lett. **44** (1980), 1579-1582.

20. FOURIER-BESSEL REPRESENTATION FOR $1/r^2$ POTENTIALS, J. L. Friar and S.J. Wallace, Phys. Rec. **C22** (1980), 1802-1805.

21. SELF-CONSISTENT πN t-MATRIX, J. W. Van Orden, M. K. Banerjee, D. M. Schneider and S. J. Wallace, Phys. Rev. **C23** (1981), 2157-2172.

22. MULTIPLE SCATTERING THEORY AND LOCAL FIELD EFFECTS, S. J. Wallace, V. Mandelzweig, D. M. Schneider and J. W. Van Orden, Phys. Rev. **C24** (1981), 799-801.

23. RECOIL AND CORRELATIONS IN PION DOUBLE SCATTERING, D. M. Schneider, M. K. Banerjee, J. W. Van Orden, and S. J. Wallace, Phys. Rev. **C25** (1982), 979-990.

24. MULTIPLE SCATTERING AND EIKONAL POLE APPROXIMATION, with V. B. Mandelzweig, Phys. Rev. **C25** (1982), 61-72.

25. ALTERNATE PARTIAL WAVE REPRESENTATIONS FOR ULTRARELATIVISTIC DIRAC POTENTIAL SCATTERING, with J. L. Friar, Phys. Rev. **C25** (1982), 2583-2590.

26. IMPULSE APPROXIMATION NN AMPLITUDES FOR PROTON-NUCLEUS INTERACTIONS, J. A. McNeil, R. L. Ray and S. J. Wallace, Phys. Rev. **C27** (1983), 2123-2132.

27. IMPULSE APPROXIMATION DIRAC OPTICAL POTENTIAL, J. A. McNeil, J. R. Shepard and S. J. Wallace, Phys. Rev. Lett. **50** (1983) 1439-1442.

28. RELATIVISTIC IMPULSE APPROXIMATION FOR p-NUCLEUS ELASTIC SCATTERING, J. R. Shepard, J. A. McNeil and S. J. Wallace, Phys. Rev. Lett. **50** (1983) 1443-1446.

29. COMMENT ON NUCLEON-NUCLEUS IMPULSE-APPROXIMATION OPTICAL-MODEL POTENTIALS FOR THE DIRAC EQUATION, B. C. Clark, S. Hama, J. A. McNeil, R. L. Mercer, L. Ray and G. W. Hoffmann, B. D. Serot, J. R. Shepard and S. J. Wallace, Phys. Rev. Lett. **51** (1983), 1808-1809.

30. APPROXIMATE DIRAC SCATTERING AMPLITUDES: EIKONAL EXPANSION, S. J. Wallace and J. L. Friar Phys. Rev. **C29** (1984) 956.

31. EVIDENCE FOR DIRAC DYNAMICS IN POLARIZED PROTON SCATTERING BY NUCLEI, S. J. Wallace, Comments on Nuclear and Particle Physics **13** (1984) 27.

32. MESON THEORY OF THE DIRAC IMPULSE APPROXIMATION, J. A. Tjon and S. J. Wallace, Phys. Rev. Lett. **54** (1985) 1357.

33. MESON THEORETICAL BASIS FOR THE DIRAC IMPULSE APPROXIMATION, J. A. Tjon and S. J. Wallace, Phys. Rev. **C32** (1985) 267.

34. GENERAL LORENTZ INVARIANT REPRESENTATION OF NN AMPLITUDES, J. A. Tjon and S. J. Wallace, Phys. Rev. **C32** (1985) 1667.

35. SPIN ORBSERVABLES IN QUASI-ELASTIC PROTON-NUCLEUS SCATTERING NEAR 1 GeV, R. D. Smith and S. J. Wallace, Phys. Rev. **C32** (1985) 1654.

36. FINAL STATE INTERACTIONS AND RELATIVISTIC EFFECTS IN THE $(e, e'p)$ REACTION, A. Picklesimer, J. W. Van Orden and S. J. Wallace, Phys. Rev. **C32** (1985) 1312.

37. y-SCALING AND FINAL STATE INTERACTIONS IN $^3He(e, e')x$, S. A. Gurvitz, J. A. Tjon and S. J. Wallace, Phys. Rev. **C34** (1986) 648.

38. SYMMETRIC, LORENTZ-INVARIANT NN AMPLITUDES: YUKAWA REPRESENTATION, J. A. Tjon and S. J. Wallace, Phys. Rev. **C35** (1987) 280.

39. RECOIL EFFECTS IN THE COORDINATE SPACE DIRAC EQUATION, N. Ottenstein, J. Sabutis and S. J. Wallace, Phys. Rev. **C35** (1987) 369.

40. GENERALIZED IMPULSE APPROXIMATION FOR RELATIVISTIC PROTON SCATTERING, J. A. Tjon and S. J. Wallace, Phys. Rev. **C36** (1987) 1085.

41. QED BASED TWO-BODY DIRAC EQUATION, V. B. Mandelzweig and S. J. Wallace, Phys. Lett. **197B** (1987) 469.

42. VACUUM POLARIZATION EFFECTS ON ELASTIC SCATTERING OF PROTONS BY NUCLEI, N. Ottenstein, S. J. Wallace and J. A. Tjon, Phys. Lett. **197B** (1987) 493.

43. ELASTIC SCATTERING OF PROTONS BY ^{16}O, ^{40}Ca, AND ^{208}Pb AT 200, 500, AND 800 MeV: RELATIVISTIC AND NONRELATIVISTIC ANALYSES BASED ON THE IMPULSE APPROXIMATION, N. Ottenstein, S. J. Wallace and J. A. Tjon, Phys. Rev. **C38** (1988) 2272.

44. ELASTIC SCATTERING OF PROTONS BY ^{16}O, ^{40}Ca, AND ^{208}Pb AT 200, 500, AND 800 MeV: EFFECTS OF VACUUM POLARIZATION AND PAULI BLOCKING CORRECTIONS, N. Ottenstein, S. J. Wallace and J. A. Tjon, Phys. Rev. **C38** (1988) 2289.

45. PSEUDO-SCALAR PION-NUCLEON COUPLING AND RELATIVISTIC PROTON-NUCLEUS SCATTERING, F. Gross, K. M. Maung, J. A. Tjon, L. W. Townsend and S. J. Wallace, Phys. Rev. **C40** (1989) R10-12.

46. COVARIANT TWO-BODY EQUATIONS FOR SCALAR AND DIRAC PARTICLES, S. J. Wallace and V. B. Mandelzweig, Nucl. Phys. **A503,** (1989) 673-693.

47. RELATIVISTIC OFF-SHELL ANALYSIS OF ELASTIC SCATTERING OF 200 MeV PROTONS BY ^{40}Ca, N. Ottenstein, E. E. van Faassen, J. A. Tjon and S. J. Wallace, Phys. Rev. **C42** (1990) R1825.

48. RELATIVISTIC PROTON-NUCLEUS SCATTERING AND ONE-BOSON EXCHANGE MODELS, K. M. Maung, F. Gross, J. A. Tjon, L. W. Townsend and S. J. Wallace, Phys. Rev. **C43** (1991) 1378.

49. OFF-SHELL EFFECTS IN ELASTIC SCATTERING OF PROTONS BY NUCLEI, N. Ottenstein, E. E. van Faassen and S. J. Wallace, Phys. Rev. **C43** (1991) 2393.

50. BOOST, RECOIL, AND WIGNER ROTATION EFFECT ON NO-PAIR ANALYSIS OF PROTON ELASTIC SCATTERING, J. A. Tjon and S. J. Wallace, Phys. Rev. **C44** (1991) 1156.

51. EFFECTIVE INTERACTION FOR INELASTIC PROTON SCATTERING BASED ON THE RELATIVISTIC IMPULSE APPROXIMATION, R. J. Furnstahl and S. J. Wallace, Phys. Rev. **C47** (1993) 2812.

52. ELECTROMAGNETIC SCATTERING FROM RELATIVISTIC BOUND STATES, N. K. Devine and S. J. Wallace, Phys. Rev. **C48** (1993) R973.

53. COMPARISON BETWEEN RELATIVISTIC AND NONRELATIVISTIC MODELS OF THE NUCLEON-NUCLEON EFFECTIVE INTERACTION. I. NORMAL-PARITY ISOSCALAR TRANSITIONS, J. J. Kelly and S. J. Wallace, Phys. Rev. C **49** (1994) 1315.

54. LOW ENERGY THEOREM FOR SCALAR AND VECTOR INTERACTIONS OF A COMPSOSITE SPIN–1/2 SYSTEM, S. J. Wallace, F. Gross and J. Tjon, Phys. Rev. Lett. **74** (1995) 228.

55. INSTANT TWO-BODY EQUATION IN BREIT FRAME, S. J. Wallace and N. Devine, Phys. Rev. C 51, 3222 (1995).

56. SCALAR AND VECTOR INTERACTIONS OF A COMPOSITE SPIN-1/2 SYSTEM, S. J. Wallace, F. Gross and J. A. Tjon, Phys. Rev. C 53, 860 (1996).

57. RELATIVISTIC BOUND-STATE EQUATIONS IN THREE DIMENSIONS, D. R. Phillips and S. J. Wallace, Phys. Rev. C 54, 507 (1996).

58. LOW-ENERGY INTERACTION OF COMPOSITE SPIN-HALF SYSTEMS WITH SCALAR AND VECTOR FIELDS, D. R. Phillips, M. C. Birse and S. J. Wallace, Phys. Rev. C 55, 1937 (1997).

59. RELATIVISTIC THREE-BODY BOUND STATES AND REDUCTION FROM FOUR TO THREE DIMENSIONS, P. C. Dulany and S. J. Wallace, Phys. Rev. C 56, 2999 (1997).

60. A COVARIANT GAUGE-INVARIANT THREE-DIMENSIONAL DESCRIPTION OF RELATIVISTIC BOUND STATES, D. R. Phillips and S. J. Wallace, Jour. of Few-Body Systems 24 (Springer-Verlag, Austria, 1998)175-191 , dedicated issue to Prof. J. A. Tjon on the occasion of his 60th birthday.

61. ELECTRON-DEUTERON SCATTERING IN A CURRENT-CONSERVING DESCRIPTION OF RELATIVISTIC BOUND STATES: FORMALISM AND IMPULSE APPROXIMATION CALCULATIONS, D. R. Phillips, S. J. Wallace and N. K. Devine, Phys. Rev. C 58, 2261 (1998).

62. MOMENTUM-SPACE ANALYSIS OF RELATIVISTIC TWO-BODY EQUATIONS WITH CONFINED INTERACTIONS: STABILITY CONSIDERATIONS, M. Ortalano, C. E. Bell S. J. Wallace and R. B. Thayyullathil, Phys. Rev. C. 59 (1999).

B. Papers presented at scientific meetings

Invited papers:

1. MULTIPLE DIFFRACTION THEORY AND 1 GeV $p-^4He$ DATA, Bull. Am. Phys. Soc. **22** (1977) 1264.

2. DYNAMICS OF HADRON NUCLEUS INTERACTIONS, Proc. of 9th Int. Conf. on High Energy Physics and Nuclear Structure, Versailles, France (July 6-10, 1981), eds. P. Catillon, P. Radvanyi and M. Porneuf, Nucl. Phys. **A374** (1982) 203c-227c.

3. Δ-ISOBARS IN NUCLEAR PHYSICS, Proc. of Conf. on New Horizons in Electromagnetic Nuclear Physics, Charlottesville, Va., (April 21- 24, 1982), R. Whitney et. al. eds. (Univ. of Virginia, Charlottesville, 1983).

4. DIRAC IMPULSE APPROXIMATION FOR PROTON-NUCLEUS SCATTERING, Bull. Am. Phys. Soc. **28** (1983) 986 (unpublished).

5. NEW APPROACH TO POLARIZED PROTON SCATTERING BASED ON DIRAC DYNAMICS, S. J. Wallace, Los Alamos Meson Physics Facility Users Group Meeting, Conf. Proc. LA-10080-C, Los Alamos, NM, 1984.

6. DIRAC IMPULSE APPROXIMATION, Workshop on Microscopic Approaches to Nucleon-Nucleus Scattering, Asilomar, CA, May, 1983 (unpublished).

7. THE DIRAC OPTICAL POTENTIAL FROM THE IMPULSE APPROXIMATION, Nuclear Structure Gordon Conf., Tilton, NH, August, 1983 (unpublished).

8. FINAL STATE INTERACTION EFFECTS IN ELECTROMAGNETIC REACTIONS, Proc. of Bates Users Theory Group Workshop, M.I.T., Cambridge, MA, July 23- 24, 1984.

9. DEVELOPMENT OF THE RELATIVISTIC IMPULSE APPROXIMATION, S. J. Wallace, in Proc. of the LAMPF Workshop on Dirac Appoaches to Nuclear Physics (#LA-10438-C), J. R. Shepard, C. Y. Cheung and R. L. Boudrie, eds., Los Alamos, NM, 1985.

10. DYNAMICAL BASIS FOR NN AMPLITUDES AND DIRAC OPTICAL POTENTIALS, S. J. Wallace, in *Relativistic Dynamics and Quark-Nuclear Physics,* ed. by M. Johnson and A. Picklesimer, (Wiley, New York, 1986, pp. 418-48.

11. RECENT DEVELOPMENTS IN THE RELATIVISTIC DESCRIPTION OF PROTON-NUCLEUS SCATTERING, S. J. Wallace, in Proc. of the BATES Users Theory Group Workshop on Relativistic Effects and Hadron Structure, M.I.T., Cambridge, MA (August 9-10, 1985).

12. RELATIVISTIC THEORY OF SPIN-DEPENDENT NUCLEON-NUCLEUS INTERACTIONS, S. J. Wallace, Proc. of the Sixth Int. Symp. on Polarization Phenomena in Nuclear Physics, Osaka, J. Phys. Soc. Jpn **55**, 1986 (Suppl.) p. 99-112.

13. RELATIVISTIC DESCRIPTION OF PROTON NUCLEUS INTERACTIONS, S. J. Wallace in *Lecture Notes of RCNP Kikuchi Summer School,* Kyoto, Sept. 2 - 5, 1985, ed. by M. Kondo, N. Matsuoka and T. Suzuki, (Res, Inst. Nucl. Phys., Osaka University, 1986) pp. 129-156.

14. GENERALIZED IMPULSE APPROXIMATION BASED ON COMPLETE SET OF RELATIVISTIC NN AMPLITUDES, S. J. Wallace, in *Lecture Notes of RCNP Kikuchi Summer School,* Kyoto, Sept. 2 - 5, 1985. ed. by M. Kondo, N. Matsuoka and T. Suzuki, (Res. Inst. Nucl. Phys., Osaka University, 1986) pp. 157 - 176.

15. RELATIVISTIC PROTON SCATTERING, S. J. Wallace, in Proc. Int'l. Nucl. Phys. Conf., Harrogate U.K., 25-30 August 1986), Inst. of Phys. Conf. Series #86, ed. by J. M. Irvine and G. C. Morrison (Inst. of Phys, Bristol, 1987) Vol. 2, pp. 267-284.

16. RELATIVISTIC MULTIPLE SCATTERING, S. J. Wallace, Proc. Int'l. Symposium on Medium Energy Physics, Beijing, China (June 23 - 27, 1987) (World Scientific, 1987), pp. 208-240.

17. RELATIVISTIC FEW-PARTICLE EQUATIONS, Gordon Conf. on Dynamics of Simple Systems in Chemistry and Physics, Wolfeboro, NH, 1987 (unpublished).

18. COVARIANT EQUATIONS FOR DIRAC PARTICLES, S. J. Wallace, in Relativistic Nuclear Many-Body Physics, ed. by B. C. Clark, R. J. Perry and J. P. Vary (World Scientific, Singapore, 1989), pp. 395-409.

19. TWO-BODY DIRAC EQUATION AND APPLICATIONS TO ATOMIC HYPERFINE SPLITTINGS, S. J. Wallace, in *Nuclear and Particle Physics on the Light Cone*, ed. by M. B. Johnson and L. S. Kisslinger (World Scientific, Singapore, 1989), pp. 477-488.

20. UNIFYING THE NUCLEON-NUCLEON AND NUCLEON-NUCLEUS INTERACTION, Gordon Conf. on Nuclear Physics, Tilton, NH (July, 1988).

21. RELATIVISTIC APPROACH TO SPIN OBSERVABLES IN PROTON ELASTIC SCATTERING BY NUCLEI, Nuclear Physics at the Red Sea, Eilat, Israel (Jan. 1989).

22. FEW-PARTICLE EQUATIONS FOR DIRAC PARTICLES, Dutch Theoretical Physics Meeting, U. of Nijmegen, The Netherlands (April 1989).

23. RELATIVISTIC NUCLEAR PHYSICS, S. J. Wallace, Lectures at Int'l. Summer School on "Structure of Hadrons and Hadronic Matter", Dronten, The Netherlands, August 1990, O. Scholten and J. H. Kock, eds. (World Scientific, 1991), pp. 84-113.

24. RELATIVISTIC AND OFF-SHELL EFFECTS IN ELASTIC PROTON SCATTERING, S. J. Wallace, 2nd Int'l. Conf. on "Medium- and High-energy Nuclear Physics", Taipei, Taiwain, June 1990, in *Progress in Nuclear Physics*, W.-Y. P. Hwang, S.-J. Lee, C.-E. Lee and D. J. Ernst, eds. (North Holland, 1991), pp. 423-433.

25. RELATIVISTIC PROTON SCATTERING, 1991 LAMPF Summer School, Los Alamos, NM (July, 1991).

26. QUASIPOTENTIAL FORMALISM FOR SYSTEMS OF TWO AND THREE DIRAC PARTICLES, Theory Inst. on the Nuclear Hamiltonian and Electromagnetic Current for the 90's, Argonne National Lab, Argonne, IL (Aug. 1991).

27. ELASTIC ELECTRON DEUTERON SCATTERING, CEBAF Users Grop Workshop, Snowshoe, WV (May 1993).

28. RELATIVISTIC BOUND STATES AND ELECTROMGNETIC INTERACTIONS: THE DEUTERON, Gordon Conf. on Physics and Chemistry of Simple Systems, Andover, NH (Aug. 1993).

29. RELATIVISTIC QUASIPOTENTIAL APPROACH TO DEUTERON FORM FACTORS, CEBAF/INT Workshop on Relativity in the Deuteron and Few-Body Systems, Newport News, VA (Sept. 1993).

30. RELATIVISTIC QUASIPOTENTIAL APPROACHES AND ELECTROMAGNETIC FORM FACTORS OF THE DEUTERON, S. J. Wallace and N. K. Devine, XIV European Few Body Conf., Amsterdam, The Netherlands, Aug. 1993 in *Few-Body Problems in Physics '93*, eds. B. L. G. Bakker and R. van Dantzig (Springer-Verlag, NY, 1994) pp. 395-408.

31. EFFECTIVE INTERACTION BASED ON RELATIVISTIC IMPULSE APPROXIMATION, S. J. Wallace, Workshop on Nuclear Medium Effect via Nucleon Induced Reactions, Kyoto, Japan, Mar. 1997.

32. THE ROLE OF RELATIVITY IN FEW BODY SYSTEMS, S. J. Wallace, 15th International Conference on Few-Body Problems, Groningen, The Netherlands, July 1997, Nucl. Phys. A631, 137c (1998).

2. *Contributed papers:*

1. EIKONAL EXPANSION, Bull. Am. Phys. Soc. **17** (1972) 542.
2. EIKONAL SCATTERING OF ATOMS IN EIKONAL MODEL, Bull. Am. Phys. Soc. **17** (1972) 598.
3. MULTIPLE SCATTERING EIKONAL EXPANSION, Nucl. Phys. Div., Oct. 1973, post deadline paper.
4. VALIDITY OF THE GLAUBER APPROXIMATION FOR FAST ATOMIC COLLISIONS, Bull. Am. Phys. Soc. **18** (1973) 1531.
5. HIGH ENERGY EXPANSION FOR NUCLEAR MULTIPLE SCATTERING, Bull. Am.Phys. Soc. **19** (1974) 1001.
6. COVARIANT POTENTIAL SCATTERING, Bull. Am. Phys. Soc. **20** (1975) 691.
7. SCATTERING OF 1 GeV PROTONS BY HELIUM, Bull. Am. Phys. Soc. **20** (1975) 1166.
8. OVERLAPPING POTENTIAL EFFECTS IN NUCLEAR MULTIPLE SCATTERING, with D. A. Sparrow, Bull. Am. Phys. Soc. **20** (1975) 1194.
9. PION-NUCLEUS ELASTIC DIFFERENTIAL SCATTERING AT LOW ENERGY, with M. K. Banerjee, Bull. Am. Phys. Soc. **21** (1976).
10. RELATIVISTIC EIKONAL EXPANSION, with J. McNeil, Bull. Am. Phys. Soc. **22** (1977) 615.
11. PROTON HELIUM ELASTIC SCATTERING, with Y. Alexander, Bull. Am. Phys.Soc. **22** (1977) 561.
12. N* VIRTUAL PRODUCTION IN p-NUCLEUS ELASTIC SCATTERING, Bull. Am. Phys.Soc. **22** (1977) 561.
13. ELASTIC PROTON ^{4}He SCATTERING NEAR 1 GeV, VII Int. Conf. on High Energy Physics and Nuclear Structure, Zurich, Switzerland, August 1977.
14. EFFECTS OF SHORT RANGE CORRELATIONS IN PROTON HELIUM ELASTIC SCATTERING, with Y. Alexander, Bull. Am. Phys. Soc. **22** (1977), 1013.
15. p-NUCLEUS SCATTERING AT .8 GeV, with D. A. Sparrow, Bull. Am. Phys. Soc.**23** (1978), 553.
16. SPIN-DEPENDENT RELATIVISTIC EIKONAL AMPLITUDE, with J. A. McNeil, Bull.Am. Phys. Soc. **23** (1978), 617.
17. QUASI-ELASTIC Δ PRODUCTION IN p-NUCLEUS SCATTERING, with E. F. Redish and Y. Alexander, Bull. Am. Phys. Soc. **23** (1978), 553.
18. PION RESCATTERING AND THE OPTICAL POTENTIAL, with M. K. Banerjee and B. Keister, Bull. Am. Phys. Soc. **23** (1978).

19. IS THERE A LARGE LOCAL FIELD CORRECTION TO THE π-NUCLEUS OPTICAL POTENTIAL?, with M. K. Banerjee, 2nd Int'l. Conf. on Meson-Nuclear Physics, Houston, Texas (March, 1979).

20. SELF-CONSISTENT PION-NUCLEUS ELASTIC SCATTERING, with J. W. Van Orden, M. K. Banerjee and D. M. Schneider, Bull. Am. Phys. Soc. **25** (1980), 518.

21. RECOIL AND CORRELATIONS IN PION DOUBLE SCATTERING, with D. M. Schneider,M. K. Banerjee and J. W. Van Orden, Bull. Am. Phys. Soc. **26** (1981), 566.

22. MULTIPLE SCATTERING THEORY AND LOCAL FIELD EFFECTS, V. B. Mandelzweig, D. M. Schneider and J. W. Van Orden, Bull. Am. Phys. Soc. **26** (1981), 622.

23. THE SELF-CONSISTENT π-NUCLEAR OPTICAL POTENTIAL AND THE REACTIVE CROSS SECTION BREAKDOWN INTO ABSORPTIVE AND INELASTIC CONTRIBUTIONS, with J. W. Van Orden, K. Stricker-Bauer, M. K. Banerjee and D. M. Schneider, Am. Phys. Soc. **26** (1981), 567.

24. LOCAL FIELD OPERATORS IN MULTIPLE SCATTERING THEORY, Int. Symp. on Mesons and Light Nuclei, Prague, Czechoslovakia (June 1-4, 1981), Czechoslovak J. Phys. **B32** (1982), 204.

25. IMPULSE APPROXIMATION DIRAC OPTICAL POTENTIAL, with J. A. McNeil and J. R. Shepard, Bull. Am. Phys. Soc. **28** (1983), 738.

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C. Books or contributions to edited books:

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4. DEVELOPMENTS IN QUARK MODELS AND RELATIVISTIC NUCLEAR PHYSICS, S. J. Wallace, in *Antinucleon- and Nucleon-Nucleus Interactions*, G. E. Walker, C. D. Goodman and C. Olmer, eds. (Plenum, New York, 1985), p. 461.

5. RELATIVISTIC EQUATION FOR NUCLEON-NUCLEUS SCATTERING, S. J. Wallace, in *Annual Review of Nuclear and Particle Science*, Vol. 37, ed. J. D. Jackson (Annual Review, Inc., Palo Alto, 1987), pp. 267-292.

6. RELATIVISITIC BOUND-STATE EQUATIONS IN THREE DIMENSIONS, D. R. Phillips and S. J. Wallace, in *Proc. of the 14th Particles and Nuclei International Workshop–PANIC 96*, eds. C. E. Carlson and J. J. Domingo (World Scientific, Singapore, 1997), p. 681.

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EIKONAL EXPANSION IN ATOMIC AND NUCLEAR SCATTERING, Ph.D. Thesis, U. of Washington, 1971, abstracted in Dissertation Abstracts International (University Microfilms, 1972), p. 6562B.

While in the employ of the Boeing Co., Seattle, Washington, Stephen J. Wallace was principal or sole author of the following technical reports:

D2AGM 20086-1, "AGM-69A Terrain Clearance Analysis"
D2AGM 20069-1, "AGM-69A Launch and Aircraft Safety Analysis"
"Flexibility Missile Stability Analysis"

M.S. Theses Directed:

Daniel Fox (1976); Ross Erwin (1978); Lawrence Rees (1979); Thomas Swyden (1979); David Rodrique (1979); John Scoville (1979); Jerrold Baum (1980); Neal Devine (1988).

Ph.D. Theses Directed:

James A. McNeil, 1979
I: Relativistic Eikonal Expansion
II: Proton-Deuteron Elastic Scattering at Intermediate Energies

Richard D. Smith, 1984
Spin Observables in Inelastic Proton-Nucleus Scattering at Intermediate Energy

Neil A. Ottenstein, 1990
Relativistic and Off-Shell Effects in Proton Elastic Scattering by Nuclei

Neal K. Devine, 1992
Elastic Electron-Deuteron Scattering with Relativistic Quasipotential Models

C. Edward Bell, 1993
Meson Bound States with Relativistic Phenomenological $q\bar{q}$ Potentials

Paul C. Dulany, 1998
Relativistic Three-Body States in Three-Dimensions via Time-Ordered Perturbation Theory

University Services Other Than Teaching:

Member, Physics Graduate Advising Committee, 1974-76: advisor to 6 graduate students
Member, Physics Faculty Salary Advisory Committee, 1975-76
Member, MPSE Division Council, 1976-77
Member, Physics Graduate Advising Committee, 1977: advisor to 8 graduate students
Member, University of Maryland Campus Senate, 1977-79
Chairman, Physics Graduate Advising Committee, 1978-79: advisor to 9 graduate students
Member, Physics Undergraduate Committee, 1978-79
Member, Physics Graduate Committee, 1978-79
Member, Physics Expanded Qualifying Examination Committee, 1978-79 Member, Physics Community Committee, 1978-79 Organized Seminar Workshop on Proton Nucleus Scattering,
April 21-22, 1978 at College Park Quality Inn
Member, Physics Council and Physics Executive Committee, 1979-80
Chairman, Physics Council and Executive Committee, 1980-81
Chairman, Search Committee for Director Computer Science Center, 1980-81
Member, Physics Faculty Salary Advisory Committee, 1982-84
Member, Physics Appointments, Promotions, and Tenure Committee, 1982-84
Chairman, Physics Graduate Entrance Committee, 1984-86
Member, Physics Graduate Committee, 1985-86
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Member, Physics Graduate Entrance Committee, 1986-87
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Chairman, Search Committee for Director of University of Maryland Institute for Advanced Computer Studies, 1986-87
Member, Physics Appointments, Promotions, and Tenure Committee, 1987-88
Chairman, Center for Theoretical Physics Committee, 1987-88
Member, Center for Theoretical Physics Committee, 1989-90
Member, Research Committee, 1989-90
Member, Campus Appeals Committee, 1990-91
Member, Graduate School Fellowship Committee, 1990-91; 1992-93
Chairman, Physics Faculty Assembly Committee, 1993-94
Member, Center for Theoretical Physics Committee, 1993-94
Member, Expanded Physics Qualifying Examination Committee, 1993-94
Chairman, Department of Physics, 1994-
Ex-officio Member, Priorities Committee, Physics Council and Executive Committee, 1994-
Member, Vice President's Executive Steering Team for Financial Management System, 1995-
Chair, Dean's Committee on Reorganization of Center for Automation Research, 1996
Member, Campus Information Technology Advisory Committee, 1996-
Member, Search Committee for Chief Information Officer, 1997
Chair, Review Committee for Chair of Astronomy Department, 1998