Curriculum Vitae and Publication List

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Graduate:

University of Pennsylvania, Philadelphia, Pennsylvania

Attended:	September 1980 - December 1984
Degree:	Ph.D., May 1985
Field:	Theoretical Nuclear Physics
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	Warner Teusch Award for excellence and promise as demonstrated by the Ph.D. exam (1981)

Undergraduate:

Harvard College, Cambridge, Massachusetts

Attended:	September 1976 - June 1980
Degree:	A.B., June 1980
Field:	Physics
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Professional Experience:

Department of Physics
University of Maryland, College Park

Professor, July 1997-
Associate Professor, July 1992 - June 1997
Assistant Professor, July 1988 - June 1992
Assistant Research Scientist, Aug. 1987 - June 1988
Research Associate, Jan. 1985 - Aug. 1987

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Visiting Associate Professor, July 1994-July 1995

Visiting Fellow at National Institute For Nuclear Theory

Quarks and Nuclei Program–(May-June 1990)
Nucleon Structure Program–(July-August 1991)
Mesons in Nuclei Program–(January 1992)
Lattice QCD and Related Phenomenology Program–(Aug. 1993)
Chiral Dynamics in Hadrons and Nuclei Program–(Spring 1994)
Strangeness Program (November 1998)
Effective Field Theory Program (August 2000)

PUBLICATIONS AND TALKS

Chapters in books

- A CHIRAL QUARK SOLITON MODEL, M. K. Banerjee, W. Broniowski and T. D. Cohen, in *Chiral Solitons*, ed. K. F. Liu, (World Scientific, Singapore, 1987).

Papers In Refereed Journals

1. EXCITED BARYONS IN LARGE N(C) QCD REVISITED: THE RESONANCE PICTURE VERSUS SINGLE QUARK EXCITATIONS, T. D. Cohen and R. F. Lebed, hep-ph/0301219 , (submitted to PRD)
2. NEW RELATIONS FOR EXCITED BARYONS IN LARGE N(C) QCD, T. D. Cohen and R. F. Lebed, hep-ph/0301167, (submitted to PRL)
3. ELECTROMAGNETIC PROPERTIES OF THE DELTA IN THE LARGE N(C) AND CHIRAL LIMITS, T. D. Cohen, Phys. Lett. **B554** (2003)28.
4. RESOLVING THE LARGE-N NUCLEAR POTENTIAL PUZZLE, T.D. Cohen, Phys. Rev.**C66** (2002) 064003.
5. THE LARGE-N NUCLEAR POTENTIAL PUZZLE, A. V. Belitsky and T.D. Cohen, Phys. Rev. bf C65 (2002) 064008.
6. NUCLEON-NUCLEON SCATTERING OBSERVABLES IN LARGE N QCD, T. D. Cohen and B. A. Gelman, Phys.Lett. B540 (2002) 227.
7. THE EXTRACTION OF G(A) FROM FINITE VOLUME SYSTEMS: THE LONG AND SHORT OF IT, T. D. Cohen, Phys. Lett. **B529** (2002) 50.
8. THE NUCLEON NUCLEON INTERACTION AND LARGE N QCD, M. K. Banerjee, T. D. Cohen, B. A. Gelman,Phys.Rev. C65 (2002) 034011.
9. CHIRAL MULTIPLETS VERSUS PARITY DOUBLETS IN HIGHLY EXCITED BARYONS, T. D. Cohen and L. Ya. Glozman, Phys. Rev. **D65** (2002) 016006.
10. MODEL INDEPENDENT PREDICTIONS FOR LOW-ENERGY ISOSCALAR HEAVY BARYON OBSERVABLES IN THE COMBINED HEAVY QUARK AND LARGE N EXPANSION, Z. A. Baccouche, C.-K. Chow, T. D. Cohen and B. A. Gelman, Phys. Lett. B514 (2001) 346.
11. EXCITED HEAVY BARYONS AND THEIR SYMMETRIES. 3. PHENOMENOLOGY. Z. A. Baccouche, C.-K. Chow, T. D. Cohen and B. A. Gelman, Nucl. Phys. **A696** (2001) 638.
12. PHASES OF QCD WITH NONVANISHING ISOPIN DENSITY, M. C. Birse, T. D. Cohen , J. A. McGovern, Phys. Lett. **B516** (2001) 27.
13. SPONTANEOUS PARITY VIOLATION IN QCD AT FINITE TEMPERATURE: ON THE INAPPLICABILITY OF THE VAFA-WITTEN THEOREM, T. D. Cohen Phys. Rev. **D64** (2001) 047704.

14. EXCITED HEAVY BARYONS AND THEIR SYMMETRIES: II. EFFECTIVE THEORY, C. K. Chow, T. D. Cohen and B. A. Gelman, Nucl. Phys. **A692** (2001) 521.

15. , PARITY VIOLATION IN POLARIZED-GAMMA PROTON COMPTON SCATTERING, J-W Chen, T. D. Cohen ands C. W. Kao, Phys. Rev. **C64** (2001) 055206.

16. EXCITED HEAVY BARYONS AND THEIR SYMMETRIES: I. FORMALISM, C. K. Chow and T. D. Cohen, Nucl. Phys. **688** (2001) 842.

17. SYMMETRIES OF EXCITED HEAVY BARYONS IN THE HEAVY QUARK AND LARGE N_C LIMIT, C. K. Chow and T. D. Cohen Phys. Rev. Lett. **84** (2000) 5474.

18. QUANTUM COINS, DICE AND CHILDREN: PROBABILITY AND QUANTUM STATISTICS, C. K. Chow and T. D. Cohen Am. Jour. Phys. **68** (2000) 829.

19. DEUTERON ELECTROMAGNETIC PROPERTIES AND THE VIABILITY OF EFFECTIVE FIELD THEORY METHODS IN THE TWO NUCLEON SYSTEM, D. R. Phillips and T. D. Cohen Nucl. Phys. **A668** (2000)45.

20. DRELL-HEARN-GERASIMOV SUM RULE FOR THE NUCLEON IN LARGE N_C QCD, Thomas D. Cohen and X. Ji, Phys. Lett. bf B474 (2000)251.

21. LOOKING FOR DISOREINTED CHIRAL CONDENSATES FROM PION DISTRIBUTIONS, C. K. Chow and T. D. Cohen, Phys. Rev. **C60** (1999) 4902.

22. TESTING LOW ENERGY THEOREMS , Thomas D. Cohen and James M. Hansen, submitted to Phys. Rev. **C59** (1999) 3947 Phys. Rev. **C60** (1999) 4619.

23. PION PHOTOPRODUCTION IN THE $\Delta(1232)$ REGION, Chung Wen Kao and Thomas D. Cohen, Phys. Rev. **C60** (1999) 4619.

24. LOW ENERGY THEOREMS FOR NUCLEON-NUCLEON SCATTERING, Thomas D. Cohen and James M. Hansen, Phys. Rev. **C59** (1999) 13.

25. SYSTEMATIC POWER COUNTING IN CUTOFF EFFECTIVE FIELD THEORIES AND THE EQUIVALENCE WITH PDS, Thomas D. Cohen and James M. Hansen, Phys Lett. **B 440** (1999) 233.

26. QUANTUM NUMBER EXOTIC HYBRID MESONS AND LARGE N_C QCD, Thomas D. Cohen, Phys. Lett. **B427** (1998) 348-352.

27. THE POTENTIAL OF EFFECTIVE FIELD THEORY IN N-N SCATTERING, Silas R. Beane, Thomas D. Cohen and Daniel R. Phillips, Nucl. Phys. **A 632** (1998) 445.

28. NONPERTURBATIVE REGULARIZATION AND RENORMALIZATION:SIMPLE EXAMPLES FROM NONRELATIVISTIC QUANTUM MECHANICS, Daniel R. Phillips, Silas R. Beane and Thomas D. Cohen, to appear Ann. Phys. 263 (1998) 445.

29. RELATIONS AMONG CORRELATION FUNCTIONS IN THE HIGH TEMPERATURE PHASE OF QCD WITH BROKEN SU(3), Michael C. Birse, Thomas D. Cohen and Judith McGovern, Phys. Lett. **B399** (1997) 263.

30. CHIRAL MULTIPLETS OF HADRON CURRENTS, T. D. COHEN AND X. Ji, Phys. Rev. **D55** (1997) 6870.

31. NUCLEON-NUCLEON SCATTERING FROM AN EFFECTIVE FIELD THEORY WITHOUT CONTACT INTERACTIONS, Daniel Phillips, Kevin A. Scaldeferri, Thomas, D. Cohen and Chung-Weng Kao, Phys. Rev. **C 57** (1997) 679.

32. HOW SHORT IS TOO SHORT? CONSTRAINING CONTACT INTERACTIONS IN NUCLEON-NUCLEON SCATTERING, D. Phillips and Thomas D. Cohen, Phys. Lett. **B 390** (1997) 7.

33. REGULARIZATION, RENORMALIZATION AND RANGE: THE NUCLEON-NUCLEON INTERACTION FROM EFFECTIVE FIELDTHEORY, Thomas D. Cohen, Phys. Rev. **C 55** (1997) 67.

34. $U(1)_A$ SYMMETRY AND CORRELATION FUNCTIONS IN THE HIGH TEMPERATURE PHASE OF QCD, M. C. Birse, T. D. Cohen and J. A. McGovern Phys. Lett. **B 388** (1996) 137.

35. THE HIGH TEMPERATURE PHASE OF QCD AND $U(1)_A$ SYMMETRY, T. D. Cohen, Phys. Rev. **D54** (1996) 1867.

36. THE P P $\rightarrow$ P P π^0 REACTION NEAR THRESHOLD: A CHIRAL POWER COUNTING APPROACH, Thomas D. Cohen, James Friar, Gerald A. Miller and Ubirajara van Kolck, Phys. Rev. **C53** (1996) 2661.

37. ISOSPIN VIOLATION AND POSSIBLE SIGNATURES OF DISORIENTED CHIRAL CONDENSATES IN ULTRARELATIVISTIC HEAVY ION COLLISIONS, Thomas D. Cohen, Phys. Lett. **B372** (1996) 193.

38. NUCLEON ELECTRIC POLARIZABILITY IN SOLITON MODELS AND THE ROLE OF THE SEAGULL TERMS, Norberto N. Scoccola and Thomas D. Cohen, Nucl. Phys. **A596** (1996) 599.

39. BARYON ISOVECTOR ELECTRIC PROPERTIES IN THE LARGE N_c AND CHIRAL LIMITS, T. D. Cohen, Phys. Lett. **B359** (1995) 23.

40. RHO-OMEGA MIXING AND CHARGE SYMMETRY BREAKING IN THE N-N POTENTIAL, T. D. Cohen and G. A. Miller, Phys. Rev. **C 52** (1995) 3428.

41. PSEUDOGOLDSTONE MODES IN ISOSPIN ASYMMETRIC NUCLEAR MATTER, T. D. Cohen and W. Broniowski, Phys. Lett. **B348** (1995) 12.

42. QCD SUM RULES AND CHIRAL LOGARITHMS. S. H. Lee, S. Choe , T. D. Cohen, and David K. Griegel, Phys. Lett. **B348** (1995) 263.

43. VANISHING CONDENSATES AND ANOMALOUSLY LIGHT GOLDSTONE MODES IN MEDIUM, T. D. Cohen and W. Broniowski, Phys. Lett. **B342** (1995) 25.

44. RELATIONS AMONG ZERO MOMENTUM CORRELATORS FOR HEAVY-LIGHT SYSTEMS IN QCD, X. Jin and T. D. Cohen Phys. Rev. **D51** (1995) 5316.

45. QCD SUM RULES VS CHIRAL PERTURBATION THEORY, D. K. Griegel and T. D. Cohen, Phys. Lett. **B333** 1994 27.

46. STRANGER IN THE LIGHT: THE STRANGE VECTOR FORM FACTORS OF THE NUCLEON, H Forkel, M. Nielsen, X. Jin and T. D. Cohen, Phys. Rev. **C50** (1994) 3108.

47. DISOREINTED CHIRAL CONDENSATES AND QUANTUM MECHANICAL ISSOPIN CORRELATIONS, Thomas D. Cohen, Manoj K. Banerjee, M. Nielsen, X. Jin, Phys. Lett. **B333**, (1994) 161.

48. MODEL INDEPENENT EXTRACTION OF $|V_{bc}|$ WITHOUT HEAVY QUARK SYMMETRY, T. D. Cohen and J. Milana, Phys. Rev. **D50** (1994) 21.

49. QCD SUM RULES FOR NUCLEAR MATTER III, X. Jin, M. Nielsen, T. D. Cohen, R. J. Furnstahl, and D. K. Griegel, Phys. Rev C **49** (1994) 464.

50. UNQUENCHING THE ρ-MESON, Derek Leinweber and T.D. Cohen, Phys. Rev. **D49** (1994) 3512.

51. JUST HOW STRANGE: POLES, LOOPS AND THE STRANGENESS RADIUS OF THE NUCLEON, T. D. Cohen, H Forkel and M. Nielsen, Phys. Lett. **B316** (1993) 1.

52. RESPONSE OF NUCLEON TO EXTERNAL PROBES IN HEDGEHOG MODELS: II. GENERAL FORMALISM, W. Broniowski and T. D. Cohen, Phys. Rev. D **47** (1993) 313.

53. HEAVY QUARK SYMMETRY AND PAIR PRODUCTION OF HEAVY MESONS: A PERTURBATIVE QCD ESTIMATE, T. D. Cohen and J. Milana, Phys. Lett. **B306** (1993) 134.

54. RESPONSE OF NUCLEON TO EXTERNAL PROBES IN HEDGEHOG MODELS: I. ELECTROMAGNETIC POLARIZABILITIES, W. Broniowski and T. D. Cohen, Phys. Rev. D **47** (1993) 299.

55. THE STRUCTURE OF THE PION AND EFFECTIVE ELECTROWEAK CURRENTS IN SOLITON MODELS OF THE NUCLEON, W. Broniowski and T. D. Cohen, Phys. Rev. D **48** (1993) 2299.

56. THE ROLE OF THE DELTA ISOBAR IN CHIRAL PERTURBATION THEORY AND HEDGEHOG SOLITON MODELS, T. D. Cohen and W. Broniowski, Phys. Lett. **B292** (1992) 5.

57. THE PION CLOUD IN QUENCHED QCD, T. D. Cohen and D. B. Leinweber, Comm. Nucl. Part. Phys. **21** (1993) 137.

58. CHIRAL CORRECTIONS TO LATTICE GAUGE CALCULATIONS OF CHARGE RADII, Derek B. Leinweber and T. D. Cohen, Phys. Rev. D **47** (1993) 2147.

59. QCD SUM RULES FOR NUCLEAR MATTER II, X. Jin, T. D. Cohen, R. J. Furnstahl, and D. K. Griegel, Phys. Rev. C **47** (1993) 2882.

60. QCD SUM RULES FOR NUCLEAR MATTER I, R. J. Furnstahl, T. D. Cohen and D. K. Griegel, Phys. Rev. C **46** (1992) 1507.

61. PROBING VECTOR MESON PROPERTIES IN NUCLEI WITH PHOTOPRODUCTION OF THE NEUTRAL PION, E. M. Smith-Rowland and T. D. Cohen, Phys. Lett. **B285** (1992) 325.

62. SPLITTING OF THE PROTON AND NEUTRON ELECTRIC POLARIZABILITIES IN A HEDGEHOG MODEL, W. B. Broniowski, M. K. Banerjee and T. D. Cohen, Phys. Lett. **B283** (1992) 22.

63. COMPOSITE NUCLEONS AND THE DIRAC SEA, T. D. Cohen, Phys. Rev. C **45** (1992) 833.

64. IN MEDIUM QUARK AND GLUON CONDENSATES FROM THE SIGMA COMMUTATOR AND THE TRACE ANOMALY, T. D. Cohen, R. J. Furnstahl, and D. K. Griegel, Phys. Rev. C **43** (1991) 357.

65. FROM QCD SUM RULES TO RELATIVISTIC NUCLEAR PHYSICS T. D. Cohen, R. J. Furnstahl, and D. K. Griegel, Phys. Rev. Lett. **67** (1991) 1961.

66. EXOTIC HIGH ISOSPIN BARYONS IN THE SKYRME MODEL: EXPERIMENTAL OBSERVABLE OR LARGE N ARTIFACT?, T. D. Cohen and D. K. Griegel, Phys. Rev. D **43** (1991) 3809.

67. IN MEDIUM PROTON-NEUTRON MASS DIFFERENCE AND THE SYSTEMATICS OF THE NOLAN-SCHIFFER ANOMALY, T. D. Cohen, M. K. Banerjee, and R. J. Furnstahl, Phys. Rev. C **43** (1991) 357.

68. EXACT EFFECTIVE POTENTIAL FOR A SCALAR SOURCE COUPLED TO THE SINE-GORDON MODEL: A TEST OF EFFECTIVE POTENTIALS FOR COMPOSITE NUCLEONS, T. D. Cohen and M. Li, Phys. Rev. C **43** (1990) 970.

69. VACUUM EFFECTS OF NON-NUCLEONIC BARYONS IN NUCLEAR MATTER, D. K. Griegel and T. D. Cohen, Nucl. Phys. **A510** (1990) 671.

70. VECTOR MESONS, ANOMALIES, AND THE KSFR RELATION, T. D. Cohen, Phys. Lett. **B233** (1989) 469.

71. THE SPIN CONTENT OF THE NUCLEON: THE LARGE N AND CHIRAL LIMITS REVISITED, T. D. Cohen and M. K. Banerjee, Phys. Lett. **B230** (1989) 129.

72. LARGE N QCD, COMPOSITE NUCLEONS AND THE DIRAC SEA, T. D. Cohen, Phys. Rev. Lett. **62** (1989) 3027.

73. COLOR DIELECTRIC MODELS FROM A LATTICE POINT OF VIEW, S. H. Lee, T. D. Cohen and M. K. Banerjee, Phys. Rev. D **40** (1989) 3060.

74. THE FINITE DENSITY EFFECTIVE SIGMA MESON MASS IN CHIRAL MODELS, D. K. Griegel and T. D. Cohen, Phys. Rev. C **39** (1989) 1032.

75. QUANTUM LEVEL STATISTICS OF PSUEDO-INTEGRABLE BILLIARDS, T. Cheon and T. D. Cohen, Phys. Rev. Lett. **62** (1989) 2769.

76. MEAN-FIELD THEORY AND FINITE DENSITY SOLITONIC MATTER, T. D. Cohen, Nucl. Phys. **A495** (1989) 545.

77. NATURE OF THE EQUIVALENCE BETWEEN GAMMA INSTABILITY AND RIGID TRIAXIALITY FOR FINITE BOSON NUMBER, T. D. Cohen, Phys. Rev. C **38** (1988) 1038.

78. CUTOFF DEPENDENCE OF VACUUM PROPERTIES FOR NUCLEON-MESON QUANTUM FIELD THEORIES, T. D. Cohen, Phys. Lett. **B211** (1988) 384.

79. IS A GAMMA UNSTABLE ROTOR REALLY EQUIVALENT TO A TRIAXIAL ROTOR FOR FINITE BOSON SYSTEMS?, T. D. Cohen, Phys. Rev. C **37** (1988) 1038.

80. THE SIGMA MESON, TOPOLOGY AND THE LARGE N LIMIT OF THE SKYRME MODEL, T.D. Cohen, Phys. Rev. D **37** (1988) 3344.

81. REPLY TO 'COMMENT ON MEDIUM MODIFIED FORM FACTORS, RELATIVISTIC DYNAMICS, AND THE (e,e'p) REACTION', T. D. Cohen, J. W. Van Orden, A. Picklesimer, Phys. Rev. Lett. **61** (1988) 1427.

82. MEDIUM-MODIFIED FORM FACTORS, RELATIVISTIC DYNAMICS AND THE (e,e'p) REACTION, T. D. Cohen, J. W. Van Orden and A. Picklesimer, Phys. Rev. Lett. **59** (1987) 1267.

83. VACUUM INSTABILITY FOR MODEL FIELD THEORIES, T. D. Cohen, M. K. Banerjee and C. Y. Ren, Phys Rev C **36** (1987) 1653 (Rapid Communication).

84. COMMENT ON 'SIGNATURE OF g BOSON IN THE INTERACTING BOSON MODEL FROM g-FACTOR VARIATIONS', T. D. Cohen, Phys. Rev. Lett.**59** (1987) 605.

85. THE ROPER RESONANCE IN THE COLOR-DIELECTRIC MODEL, W. Broniowski, T. D. Cohen and M. K. Banerjee, Phys. Lett. **187B** (1987) 229.

86. AN EXOTIC ISOSCALAR DIPOLE RESONANCE IN THE WALECKA MODEL, R. B. Thayyullathil, T. D. Cohen and W. Broniowski, Phys. Rev. C **35** (1987) 1969 (Rapid Communication).

87. SEMI-CLASSICAL PROJECTION OF HEDGEHOG MODELS WITH QUARKS, T. D. Cohen and W. Broniowski, Phys. Rev. D **34** (1986) 3472.

88. THE πNN FORM FACTOR IN THE SKYRME MODEL, T. D. Cohen, Phys. Rev. D **34** (1986) 2187 (Rapid Communication).

89. RPA METHOD FOR QUARK-MESON SOLITONS, W. Broniowski and T. D. Cohen, Nucl. Phys. **A458** (1986) 652.

90. CRANKING IN HEDGEHOG MODELS WITH VECTOR MESONS, W. Broniowski and T. D. Cohen, Phys. Lett. **177**B (1986) 141.

91. THE NUCLEON-DELTA SPLITTING IN THE CHIRAL QUARK-MESON MODEL, T. D. Cohen and M. K. Banerjee, Phys. Lett. **167B** (1986) 21.

92. SELF-CONSISTENCY AND BOSON MAPPINGS FOR DEFORMED SYSTEMS, T. D. Cohen, Phys. Lett. **158B** (1985) 1.

93. THE IMPORTANCE OF ANGULAR-MOMENTUM-FOUR PAIRS IN THE DYNAMICS OF DEFORMED NUCLEI, T. D. Cohen, Nucl. Phys.**A431** (1985) 165.

94. MICROSCOPIC NUCLEAR COLLECTIVE MOTION STUDIED BY CLASSICAL EQUATIONS OF MOTION, T. D. Cohen, Nucl. Phys. **A431** (1984) 45.

95. STUDY OF A BOHR-MOTTELSON HAMILTONIAN OBTAINED FROM AN IBM HAMILTONIAN WITH THE SYMMETRY 0(6), T. D. Cohen, Phys. Lett. **125B** (1983) 432.

96. DERIVATION AND TEST OF ACCURACY OF AN IBM-LIKE HAMILTONIAN FOR A MODEL WITH SO(5)×SO(5) SYMMETRY, T. D. Cohen and A. Klein, Nuc. Phys. **A390** (1982) 1.

97. BOSON MAPPINGS FOR SCHEMATIC NUCLEAR MODELS WITH THE SYMMETRY OF SO(5), A.Klein, T. D. Cohen and C. T. Li, Ann. of Phys. **141** (1982) 382.

Solicited Review Articles In Refereed Journals

1. DOES ONE OBSERVE CHIRAL SYMMETRY RESTORATION IN BARYON SPECTRUM? T. D. Cohen L. Y. Glozman, Int. J. Mod. Phys. **A17** (2002) 1327.

2. THE LARGE N_c AND CHIRAL LIMITS OF QCD AND MODELS OF THE BARYON, Rev. Mod. Phys. **68**(1996) 599 (RMP Colloquium).

3. QCD SUM RULES AND APPLICATIONS TO NUCLEAR PHYSICS, T. D. Cohen, R. J. Furnstahl, D. K. Griegel and X. Jin, Prog. in Part. and Nucl. Phys. **35** (1995) 221.

4. A CHIRAL QUARK SOLITON MODEL, M. K. Banerjee, W. Broniowski and T. D. Cohen, in *Chiral Solitons*, ed. K. F. Liu, (World Scientific, Singapore, 1987).

5. PHENOMENOLOGICAL CONCEPTS OF NUCLEAR COLLECTIVE MOTION AND THEIR POSSIBLE MICROSCOPIC FOUNDATIONS, A. Klein, C. T. Li, T. D. Cohen and M. Vallieres, in *Progress in Particle and Nuclear Physics*, **Vol. 9**, ed. D. Wilkinson (Pergamon, Oxford, 1983).

Book Reviews

- Review of *Chiral Nuclear Dynamics*, by M. A. Nowak, M. Rho and I. Zahed in Physics Today, March 1998.

Invited Talks at International Conferences, Workshops and Schools

- Δ PROPERTIES IN THE LARGE N_c AND CHIRAL LIMITS, ECT* Workshop on the Structure of the Nucleon (Trento, Italy, September 2002)
- NN FORCES AND Large N_c CONSISTENCY, ETSIM workshop (Manchester, England, July 2002)
- LARGE N_c CONSISTENCY and NN FORCES, Join INT/JLAB Workshop on Large N_c Phenomenology.
- SYSTEMATIC EXPANSIONS OF QCD AND NN SCATTERING, INT Workshop on Theories of Nuclear Forces and Few-BOdy problems (Seattle, June 2001)
- CHIRAL SYMMETRY:ISSUES FOR THE NEXT FIVE YEARS, Workshop of the Future of Hadron Physics (Duck, North Carolina, Nov. 2000)
- SOLITONS, Large N_C QCD AND HEAVY BARYONS, Workshop on Few Quark Problems, (Bled, Slovenia, July 2000)
- THE CHIRAL EXPANSION IN NUCLEON-NUCLEON INTERACTIONS, Gordon Conference on QCD in Nuclear Physics, (Newport, RI, July 1999).
- PERTURBATIVE PIONS AND THE EFFECTIVE RANGE EXPANSION, INT Workshop on Effective Field Theory in Nuclear Physics (Seattle Feb. 1999)
- VIEWS OF A DEVIL'S ADVOCATE—FUNDAMENTAL CHALLENGES TO A SYSTEMATIC EFFECTIVE FIELD THEORY TREATMENT OF LOW ENERGY NUCLEAR PHYSICS, Joint Caltech–INT Workshop on Effective Field THeory and N-N interactions, Pasadena (Feb. 1998)
- THE SKYRME MODEL AND LARGE N_c QCD, lectures at the the HUGS at CEBAF summer school June 1998)
- QCD, Hadrons, PHASE TRANSITIONS AND ALL THAT, APCPT workshop "Properties of Hadrons in Matter" joint with the Korean Physical Society Seoul, Korea (October 1997)
- THE SPECTRAL DENSITY OF THE DIRAC OPERATOR ABOVE T_c APCPT workshop "Properties of Hadrons in Matter" Seoul, Korea (October 1997).
- LARGE N QCD, CHIRAL SYMMETRY, SKYRMIONS AND ALL THAT, Solitons—Properties, Dynamics, Interactions and Applications, Kingston, Ontario (July 1997)
- WHAT HAVE WE LEARNED FROM DEEP INELASTIC SCATTERING OFF NUCLEI, at International Workshop on the Deep Inelastic Structure Of Nuclei, Jefferson National Accelerator Facility, Newport News Virginia (December 1996).
- ISOSPIN VIOLATION AND DISORDERED CHIRAL CONDENSATES, International Workshop on DIsoreinted Chiral COndensates, ECT*, Trento , Italy (October 1996)

- THEORETICAL ISSUES IN η' PHYSICS AND $U_A(1)$ VIOLATION,Workshop on the Structure of the η' Meson, Las Cruces, New Mexico (March 1996).
- WHAT DO QCD SUM RULES TEACH US ABOUT DENSE MATTER, Hirshegg '95: Workshop on Properties of Hadrons in Nuclei, Hirshegg, Austria (January 1995).
- WHAT DO BARYON MODELS TEACH US? Workshop on Real And Virtual Compton Scattering, Crystal Mountain, Washington (September 1994).
- QUANTUM ISOSPIN CORRELATIONS AND DISOREINTED CHIRAL CONDENSATES, Symposium on the Harmony in Physics, Philadelpha, (May 1994).
- THE STRANGNESS RADIUS OF THE NUCLEON, International Workshop on the Quark Strucure of Nucleon, Trento Italy (October 1993).
- BARYONS IN NUCLEAR MATTER: A QCD SUM RULE APPROACH, Gordon Conference (July 1993).
- COMPLEMENTARITY OF πN, KN and γN REACTIONS IN BARYON SPECTROSCOPY, Workshop on Future Directions in Particle and Nuclear Physics at Multi-GeV Hadron Beam Facilities, Brookhaven (March 1993).
- THE PION CLOUD IN VARIOUS APPROACHES TO QCD, APS Nuclear Physics Divisional Meeting, Santa Fe, New Mexico, Oct. 1992.
- LOOKING FOR PIONS IN ALL THE WRONG PLACES, CEBAF workshop June 1992.
- BARYONS IN NUCLEAR MATTER: A QCD SUM RULE APPROACH, Baryons 92 Int'l. Conf. on the Structure of Baryons and Related Mesons, Yale University, New Haven, Connecticut (1992).
- QCD AND NUCLEAR PHYSICS, Symposium on Contemporary Physics, Philadelphia (1991).
- VACUUM EFFECTS FOR COMPOSITE NUCLEONS, Workshop on From Fundamental Field to Nuclear Phenomena, Boulder, Colorado (1990).
- QUANTUM FIELD THEORY AND SOLITON MATTER, Workshop on Relativistic Nuclear Physics, Columbus Ohio (1988), in *Relativistic Nuclear Many-Body Physics*, eds. B. C. Clark, R. J. Perry, and J. P. Vary (World Scientific, Singapore, 1989).
- VACUUM INSTABILITIES FOR MODEL FIELD THEORIES, Workshop on Mesonic Degrees of Freedom in Hadrons, Bled/Ljubljana Yugoslavia (1987), proceedings in Fizika **19** (1987) 4.
- SEMI-CLASSICAL PROJECTION OF HEDGEHOGS, Nuclear Theory Workshop, Manchester, U.K. (1986).

Honors, Awards and Fellowships:

NSF Presidential Young Investigator, 1990-1995
Fellow American Physical Society (2001)

Contracts and Grants

- DOE supported grant for quarks, hadrons and nuclei group. Present level of support $600,000 per year. Affiliated with this grant or preceding DOE grants to the group for entire professional career.
- NSF PYI grant, 1990-1995, $525,000
- NSF international exchange grant (US-Poland), 1994-1998, $20,00

Colloquia

"QCD and Nuclear Physics," University of Maryland (1991)

"QCD and Nuclear Physics," Rensselaer Polytechnic Institute (1991)

"What are Protons and Neutrons Made Of?" University of Maryland, Math Department (1993)

"Just How Strange is The Nucleon?" Drexel University (1994)

"Just How Strange is The Nucleon?" Catholic University (1994)

"Misaligning the QCD Vacuum", University of Washington (1995)

"Effective and Ineffective Field Theory in Nuclear Physics", University of Maryland (2000)

"Effective and Ineffective Field Theory in Nuclear Physics", College of Willam and Mary (2000)

Seminars

Seminars since 1999

University of Virginia (2000)
University of Kentucky (2000)
Argonne National Lab (2000)
University of Manchester (UK) (2001)
Jefferson Lab (2001)
University of Maryland (2001)
Brookhaven National LAb (2001)
Ohio University (2002)
Indiana University (2002)

Teaching

Courses Taught at the University of Maryland since 1997:

Course No.	Semester	Credit Hours	Enrollment
PHYS 273/273h	Spring 1998	3	20
PHYS 272/272h	Fall 1998	3	20
PHYS 606	Spring 1999	4	45
PHYS 272/272h	Fall 1999	3	20
PHYS 606	Spring 2000	4	45
PHYS 374	Fall 2000	4	40
PHYS 374	Spring 2001	4	30
PHYS 401	Fall 2001	4	30
PHYS 374	SPRING 2002	4	30
PHYS 401	Fall 2002	4	65
PHYS 402	Spring 2003	4	55

Teaching Innovation/Course Development:

- Development of UNIV 126A along with Professor Racusen of Plant Biology and Professor Perlis of Computer Science. This is a "World Course" —part of a program of interdisciplinary courses aimed at freshman not in the honors or College Park Scholars programs. UNIV 126A is one of the first two World Courses to be offered; it explores scientific treatments of the origins of life, the universe and intelligence. (Fall 1996)

- Development of PHYS 441. This advanced undergraduate course had not been offered in many years. The renewed version of the course covered selected topics in nuclear and particle physics. The topics were picked both for their intrinsic interest and importance and for their accessibility to students at this level.(Spring 1997)

- Development of PHYS 374. This "bridge course" on intermediate theoretical methods has in the past been taught mostly as a math methods course. I have completely reoriented the course to be based entirely on nontrivial physical applications with mathematic introduced as needed. This realignment is in the spirit of the original proposal for a bridge course that was adopted by the faculty. I have also added a major section on relativity using a 4-vector formalism. A major difficulty is that there is no book covering the material so I was forced to develop the course from scratch and to use my lecture notes as the principal student reference. From written and oral student responses I believe that this was a successful course and that the course should be taught in this way in the future. (Fall 2000)

Teaching Awards:

Dean's Award for Excellence in Teaching 1993
Dean's Award for Excellence in Teaching (Honorable Mention) 1999
Celebrating Teaching Award 1999
Celebrating Teaching Award 2000

Nonresearch advising:

- *Undergraduate—approximately 4/year as part of departmental advising system*
- *Other advising activity—Significant amounts of unofficial advising.*

Research Supervisor To Following Ph. D.Students:

David Griegel (Ph.D. 1991)
Edward Smith-Rowland (Ph. D. 1995)
Xuemin Jin (Ph.D. 1993)
Chung-Wen Kao (Ph. D. 2000)
Boris Gellman
Zohar Aziza Baccouche

Research Supervisior To Following Undergraduate Honors Students: Nellore, Abhinav

Professional Service since 1992

Significant level of reviewing grant proposals from DOE, NSF and other funding agencies; significant level of referee papers for Physical Review, Physical Review Letter, Nuclear Physics, Physical Letters and other Journals.

Program Committee, APS Division of Nuclear Physics (1992-1993)

Organizer, Miniworkshop on QCD Sum Rules for Finite Densities and Temperature at Institute for Nuclear Theory, Sept. 30-Oct. 1 1995

Panelist International Science Foundation: Panel for Grants for Nuclear and Particle Physics in Former Soviet Union (1994)

DNP Nominating Committee (1996)

Local Advisory Committee, International Workshop on the Deep Inelastic Structure Of Nuclei, Jefferson National Accelerator Facility (1996)

American Physical Society, Committee on Meetings (1999-2001)

Departmental, College and University Service Since 1992

Departmental:

Physics Representative to Math Department's Calculus Reform Committee (1990-93)

Numerious search and promotion committees committees

Physics Deptarment APT committee (1992-94)

Admissions Committee (1993-94)

Subcommitee On Undergraduate Education (1994)

Physics Deptarment APT committee (1995-1997)

Undergraduate Honors Program chairman (1995-1999)

Coordinator Physics 171,272,273 sequence (1996-)

Priorities Committee (1997-2000)

Salary Committee(1999-2000,chair 2001)

APT Committee (2001-, Chair 2002-)

Graduate Committee Chair(1999-)

College:

Physics Department Chairman Search Committee (1993)

Review Committee of CMPS Graduate Program (1996-1997)

Chen Scholarship Committee (1996)

Search Committee For Assitant to the Dean for Fellowships and Career Development (1996)

Dorfman Prize Committee (1997-)

Physics Department Chair Search Committee (1998)

Chen Scholarship Committee (1999)

University:

Campus Senate (1996-)

Graduate Council (1997-)

CQI Committee on Transfer Students(1998-1999)

Chair Educational Affairs Committee, Campus Senate(1998-1999)

Task Force on +/- grading (1999-2000)

Review Committee on Core (2000-2001)

Graduate Council (2002-)

Thomas D. Cohen

Date