### Curriculum Vita-Peter C. Tandy

### Present Position:

Professor, Department of Physics

Kent State University, Kent, Ohio, 44242

Telephone: (330)672-4027 Email: tandy@kent.edu

### Education:

B.Sc. (Physics) - 1968, University of Queensland, Australia.

B.Sc. (Hons, Physics) - 1969, University of Queensland, Australia.

Ph.D. (Physics) - 1972, Flinders University of South Australia.

## Professional Experience:

Acting Vice President for Research, KSU (2006-2007).

Chairman, Department of Physics, KSU (2001-2004).

Director of Center for Nuclear Research, KSU (1992-2000).

Professor of Physics, KSU (1989-).

Assoc. Prof. of Physics, KSU (1983-89).

Asst. Prof. of Physics, KSU (1979-83).

Visiting Scientist, Flinders University, Australia (1993, 1994, 1995).

Consultant/Visiting Scientist/Collaborator, Los Alamos Natl. Lab. (1982-94).

Visiting Scientist, University of Adelaide, Australia (Sum 1990).

Visiting Professor, University of Maryland (1987-88).

Visiting Scientist, TRIUMF Laboratory (Sum 1985).

Research Fellow in Theoretical Physics, Aust. National Univ. (1976-79).

Research Associate, University of Maryland (1974-76).

Research Fellow, University of Surrey, UK (1972-74).

### Honors:

Elected Fellow of the American Physical Society (1996).

Elected Fellow of the Australian Institute of Physics (1995).

Distinguished Scholar Award, Kent State University, (2001).

### Professional Memberships:

Division of Nuclear Physics, American Physical Society.

Division of Particle Physics, American Physical Society.

Sigma Xi, Sigma Pi Sigma.

### Research Grant Support:

Research program supported continuously by NSF single-PI grants: 1979-2012.

### Professional Service:

Referee for Journals—Annals of Physics, Physical Review C, Physical Review D, Physical Review A, Physical Review Letters, Physics Letters B, Journal of Physics G (IOP), European Physical Journal A, Australian Journal of Physics, Fizika B, Nuclear Physics A, Few-Body Systems, Reviews of Modern Physics

Reviewer of Grant Proposals—National Science Foundation, Department of Energy, U.S. Civilian Research and Development Foundation, The Ohio State Supercomputer Center

NSF Site Review Committee—Indiana University Cyclotron Facility (1981)

Program Advisory Committee—Indiana University Cyclotron Facility (1987-90)

International Advisory Committee—13<sup>th</sup> International Conference on Few-Body Problems in Physics (1992)

International Advisory Committee—14<sup>th</sup> International Conference on Few-Body Problems in Physics (1994)

External Reviewer—Research School of Physical Sciences & Engineering, Institute for Advanced Studies, ANU, Australia (1995)

International Advisory Committee—Erice International School on Nuclear Physics: Quarks in Hadrons and Nuclei, Italy, (September 2002)

Co-organizer—International Workshop on Lepton Scattering, Hadrons and QCD, University of Adelaide Center on the Sub-atomic Structure of Matter, Australia (March 2001)

International Advisory Committee—QCD Down Under Workshop, University of Adelaide Center on the Sub-atomic Structure of Matter, Australia (March 2004)

American Physical Society Committee—APS Fellowship Committee, Hadron Physics Topical Group (2005)

International Advisory Committee—International Workshop on Topical QCD, Australia, (July 2008)

International Advisory Committee—International Workshop on Topical QCD, Australia, (July 2010)

International Advisory Committee—International Workshop on Non-perturbative Aspects of Field Theories III, Morelia, Mexico (April 2011)

### MS Theses Directed:

Brian Horton, 1999

### PhD Dissertations Directed:

D.H. Wolfe, 1983; K. Maung, 1985; G. P. Latta, 1988; M. R. Frank, 1991; K. Mitchell, 1995; S. Banerjee, 1999; L. Qian, 1998; Dennis Jarecke, 2005; Mandar Bhagwat, 2005; Nicholas Souchlas, 2009; Trang Nguyen, 2010; Konstantin Khitrin, 2011 IP.

### Postdoctoral Research Associates Employed:

Ch. Elster; H. Uechi; V. Mishra; D. Kahana; P. Maris; M. Pichowsky; M. Bhagwat; O. Lakhina.

Graduate Faculty Status: Full Member

### Courses Taught:

Graduate: Classical Mechanics, Quantum Mechanics I, Quantum Mechanics II, Quantum Mechanics III (Many Body QM and Field Theory), Advanced Nuclear Physics, Mathematical Methods in Physics, Advanced Topics—Field Theory, Quantum Scattering Theory, Symmetry Groups and Particles

*Undergraduate*: Introductory Physics Seminar, General University Physics I and II (calculus sequence for majors), Mechanics I (junior majors), Quantum Mechanics, Seven Ideas that Shook the Universe (non-science majors)

# Research Proposals (since 2002):

<u>PI</u>	<u>Title</u>	Subm Date	$\underline{\mathrm{Agency}}$	<u>Period</u>	Amount
PCT	Studies in QCD Modeling of Hadron Physics	September 1999 April 2001 April 2002	NSF (Cont) (Cont)	08/01/00 - 07/31/03 08/01/01 - 07/31/02 08/01/02 - 07/31/03	\$275,506 \$74,000 \$76,000
PCT	US-Germany Cooperative Research: Quark Confinement and Hadronic Processes	June 2001	NSF	04/01/02 - 03/31/05	\$54,207
PCT	Hadron Physics From Covariant QCD Modeling	September 2002 April 2004 April 2005	NSF (Cont) (Cont)	07/01/03 - 06/30/06 07/01/04 - 06/30/05 07/01/05 - 06/30/06	\$305,731 \$91,408 \$93,086
PCT	Topics in QCD Modeling of Hadron Physics	November 2005 April 2007 April 2008	NSF (Cont) (Cont)	07/01/06 - 06/30/09 07/01/07 - 06/30/08 07/01/08 - 06/30/09	\$361,882 \$82,000 \$84,000
PCT	Theoretical Investigations in Hadron Physics	October 2008	NSF	07/01/09 - 06/30/12	\$311,849
PCT	Effects of Radiation on Macroscopic Physical Properties of Materials	April 2009	BNL	06/11/09 - 10/15/09	\$15,201
PCT	Effects of Radiation on Macroscopic Physical Properties of Materials	December 2009	BNL	10/16/09 - 01/15/10	\$9,500

# Research Grants:

<u>PI</u>	<u>Title</u>	No.	Source	Period	Amount
PCT	Interactions of Medium Energy Nucleons and Deuterons with Nuclei	PHY-7907511/01	NSF	06/01/80 - 05/31/81 06/01/79 - 05/31/80 Total Grant	\$15,569 \$12,000 \$27,569
PCT	Theory of Nuclear Reaction Mechanisms	PHY-7907511/02 (7911/3139)	NSF	06/01/82 - 05/31/83 06/01/81 - 05/31/82 Total Grant	\$20,250 \$20,250 \$40,500
PCT	Theoretical Studies of Nuclear Scattering and Reaction Mechanisms	PHY-8305745 (7302/2832)	NSF	06/01/84 - 05/31/85 06/01/83 - 05/31/84 Total Grant	\$25,000 \$25,000 \$50,000
PCT	Theoretical Studies of Nuclear Scattering and Reaction Mechanisms	PHY-8505736 (440189)	NSF	06/01/87 - 05/31/88 06/01/86 - 05/31/87 06/01/85 - 05/31/86 Total Grant	\$54,263 \$53,733 \$30,084 \$138,080
PCT	Intermediate Energy Nuclear Interactions and Scattering Mechanisms	PHY-8805633 (440719)	NSF	07/01/90 - 06/30/91 07/01/89 - 06/30/90 07/01/88 - 06/30/89 Total Grant	\$58,800 \$63,545 \$56,688 \$179,033
PCT	Studies of Nucleon Substructure and Interactions	PHY-9113117 (440273)	NSF	07/01/93 - 06/30/94 07/01/92 - 06/30/93 07/01/91 - 06/30/92 Total Grant	\$69,000 \$67,500 \$66,000 \$202,500
PCT	US-Australia Cooperative Research: Studies in Non-Perturbative QCD	INT-9215223 (440732)	NSF	02/01/93 - 07/31/95	\$24,084
	and Hadron Dynamics	()		Total Grant	\$24,084
PCT	QCD Based Field Theory Modeling of Nuclear Interactions	PHY-9414291 (440137)	NSF	08/01/96 - 07/31/97 08/01/95 - 07/31/96 08/01/94 - 07/31/95 Total Grant	\$48,500 \$48,500 \$53,300 \$150,300

# Research Grants (contd);

<u>PI</u>	<u>Title</u>	No.	Source	Period	Amount
PCT	US-Germany Cooperative Research: Hadron Observables at Finite Temperatures and Baryon Density	INT-9603385 (442381)	NSF	04/15/97- 01/31/00	\$23,800
				Total Grant	\$23,800
PCT	Nonperturbative QCD Modeling of Hadron Physics	PHY-9722429 (442411)	NSF	06/01/99 - 05/31/00 06/01/98 - 05/31/99 06/01/97 - 05/31/98 Total Grant	\$79,121 \$70,879 \$72,879 \$222,879
PCT	Studies in QCD Modeling of Hadron Physics	PHY-0071361 442139)	NSF	08/01/02 - 07/31/03 08/01/01 - 07/31/02 08/01/00 - 07/31/01 Total Grant	\$76,000 \$74,000 \$72,000 \$222,000
PCT	US-Germany Cooperative Research: Quark Confinement and Hadronic	INT-0129236 (442176)	NSF	04/01/02 - 03/31/04	\$19,600
	Processes			Total Grant	\$19,600
PCT	Hadron Physics From Covariant QCD Modeling	PHY-0301190 (442312)	NSF	07/01/03 - 06/30/04 07/01/04 - 06/30/05 07/01/05 - 06/30/06 Total Grant	\$70,500 \$91,408 \$93,086 \$254,994
PCT	Topics in QCD Modeling of Hadron Physics	PHY-0610129 (442215)	NSF	07/01/06 - 06/30/07 07/01/07 - 06/30/08 07/01/08 - 06/30/09 Total Grant	\$80,000 \$82,000 \$84,000 \$246,000
PCT	Effects of Radiation on Macroscopic Physical Properties of Materials	147966 (440657)	BNL	06/11/09 - 01/15/10	\$24,701
PCT	Theoretical Investigations in Hadron Physics	PHY-0903991 (442265)	NSF	08/01/09 - 07/31/10 08/01/10 - 07/31/11 08/01/11 - 07/31/12 Total Grant	\$110,000 \$95,000 \$95,000 \$300,000
				Total Funding =	\$2,126,040

### **International Collaborations:**

- Principal Investigator of an NSF-supported Cooperative research program that links U.S. scientists with Australian counterparts to tackle problems in non-perturbative QCD for hadron dynamics. (1993-1995)
- Principal Investigator of an NSF-supported Cooperative research program that links U.S. scientists with German counterparts to describe hadron observables at finite temperatures and baryon density. (1997-1999)
- Principal Investigator of an NSF-supported Cooperative research program that links U.S. scientists with German counterparts to investigate quark confinement in hadronic processes. (2002-2004)
- Co-Principal Investigator of the Collaborative Research Linkage Grant funded by the Australian Government to promote exchanges of research personnel to tackle key theoretical physics issues in strong interactions. (2008-2011)
- Principal Investigator of an NSF-supported bilateral research effort that links U.S. scientists with Mexican counterparts, based at the University of Morelia, to advance the field theory modeling of parton distribution functions in hadrons. (2009-2011)

# Citation analysis of author P. Tandy from SPIRES

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Well-known papers $(50-99)$ :	8	8
Known papers $(10-49)$ :	42	38
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Unknown papers (0):	3	3
Total eligible papers analyzed:	85	73
Total number of citations:	2416	2311
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Metric	All papers	Published only
h index:	29	29
Total of cites/authors:	940.93	887.13
Average of cites/authors:	11.07	12.15
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Average of (cites-to $+$ cites-from):	53.78	56.71
Total of (cites-to - self-cites):	2142	2049
Average of (cites-to - self-cites):	25.20	28.07

### Books Edited:

1. **Lepton Scattering, Hadrons and QCD**, Eds. W. Melnitchouk, A. W. Schreiber, A. W. Thomas and P. C. Tandy, (World Scientific, Singapore), 333pp, (2001).

### Refereed Publications:

- 1. The Off-Shell Spectator Model for d(p,2p)n, I.E. McCarthy and P.C. Tandy, Nucl. Phys. A178, 1-8 (1971).
- 2. Exact-Unitary Model Calculations of N-D Elastic Scattering, P.C. Tandy, R.T. Cahill, and I.E. McCarthy, Phys. Lett. B41, 241-243 (1972).
- 3. Coulomb Interference in the Half-Shell T-Matrix Derived from the Hamada-Johnston Potential, I.E. McCarthy and P.C. Tandy, Aust. J. Phys. 25, 237-246 (1972).
- 4. An Approximate Three Body Theory of Deuteron Stripping, R.C. Johnson and P.C. Tandy, Nucl. Phys. A235, 56-74 (1974).
- 5. Reactive Content of the Single-Scattering Optical Potential, P.C. Tandy, E.F. Redish, and D. Bolle, Phys. Rev. Lett. **35**, 921-924 (1975).
- 6. New Alternative to the Resonating Group Method, R.Raphael, P.C. Tandy, and W.Tobocman, Phys. Rev. C 14, 1355-1368 (1976); Erratum, Phys. Rev. C 15, 463 (1977).
- 7. A Heuristic Method for Determining Outgoing Waves in Many-Body Wave Functions, E.F. Redish, P.C. Tandy, and M. L'Huillier, Phys. Lett. **B61**, 413-416 (1976).
- 8. Class of Integral Equations for the N-Particle Transition Operators, Gy. Bencze and P.C. Tandy, Phys.Rev. C 16, 564-570 (1977).
- 9. Three-Body Approach to the Single Scattering Optical Potential, P.C. Tandy, E.F. Redish, and D. Bolle, Phys. Rev. C **16**, 1924-1944 (1977).
- 10. Proof of the Bencze-Redish-Sloan Equations, P. Benoist-Gueutal, M. L'Huillier, E.F. Redish, and P.C. Tandy, Phys. Rev. C 17, 1924-1928 (1978).
- 11. The Structure of the Many-Body Wave Function for Scattering, M. L'Huillier, E.F. Redish, and P.C. Tandy, J. Math. Phys. 19, 1276-1285 (1978).
- 12. Observation of a  $T_>$  Gamow-Teller State in  $^{48}Ca(p,n)^{48}Sc$  at 160 MeV, B.D. Anderson, J.N. Knudson, P.C. Tandy, J.W. Watson, R. Madey, and C.C. Foster, Phys. Rev. Lett. 45, 699-702 (1980).
- 13. The  $^{12}C(p,n)^{12}N$  Reaction at 99 MeV, J.N. Knudson, B.D. Anderson, P.C. Tandy, J.W. Watson, R. Madey, and C.C. Foster, Phys. Rev. C 22, 1826-1831 (1980).
- 14. Multiple Scattering Expansion with Distortion, P.C. Tandy and R.M. Thaler, Phys. Rev. C 22, 2321-2329 (1980).
- 15. 'Stretched' States Excited in the  ${}^{48}Ca(p,n){}^{48}Sc$  Reaction at 160 MeV, J.W. Watson, M.Ahmad, B.D. Anderson, A.R. Baldwin, A. Fazely, R. Madey, P.C. Tandy, and C.C. Foster, Phys. Rev. C 23, 2373-2376 (1981).
- 16. Analyzing Power for the  $^{16}O(p,n)^{16}F(4^-,6.37MeV)$  Reaction at 134 MeV, R. Madey, B.D. Anderson, A.R. Baldwin, A. Fazely, A.M. Kalenda, R.J. McCarthy, P.C. Tandy, J.W. Watson, W. Bertozzi, T. Buti, M. Finn, M. Kovash, B. Pugh, and C.C. Foster, Phys. Rev. C 25, 1715-1721 (1982).
- 17. Microscopic Distorted Wave Theory of Inelastic Scattering, A. Picklesimer, P.C. Tandy, and R.M. Thaler, Phys. Rev. C 25, 1215-1232 (1982).

- 18. Use of Distorted Waves in the Theory of Inelastic Scattering, A. Picklesimer, P.C. Tandy, and R.M. Thaler, Phys. Rev. C 25, 1233-1252 (1982).
- 19. Minimal Coupling Schemes in N-Body Reaction Theory, A. Picklesimer, P.C. Tandy, and R.M. Thaler, Phys. Rev. C 26, 315-319 (1982).
- 20. The Multiple Scattering and N-Body Approaches to Nuclear Reactions, A. Picklesimer, P.C. Tandy, and R.M. Thaler, Ann. Phys. (N.Y.) 145, 207-307 (1983).
- Total Inclusive Neutron Cross Sections and Multiplicities in Nucleus-Nucleus Collisions at Intermediate Energies, R. Madey, B.D. Anderson, R.A. Cecil, P.C. Tandy, and W. Schimmerling, Phys. Rev. C 28, 706-709 (1983).
- 22. Isovector Correction to the Kerman, McManus, and Thaler Formalism, L. Ray, P.C. Tandy, and R.M. Thaler, Phys. Rev. C 28, 506-512 (1983).
- 23. Gamow-Teller Strength in the  $^{18}O(p,n)^{18}F$  Reaction at 135 MeV, B.D. Anderson, A. Fazely, R.J. McCarthy, P.C. Tandy, J.W. Watson, R. Madey, W. Bertozzi, T.N. Buti, J.M. Finn, J. Kelley, M.A. Kovash, B. Pugh, B.H. Wildenthal, and C.C. Foster, Phys. Rev. C 27, 1387-1393 (1983).
- 24. Characteristic Dirac Signature in Elastic Proton Scattering at Intermediate Energies, M.V. Hynes, A. Picklesimer, P.C. Tandy, and R.M. Thaler, Phys. Rev. Lett. **52**, 978-981 (1984).
- 25. Off-Shell and Nonlocal Effects in Proton-Nucleus Elastic Scattering, A. Picklesimer, P.C. Tandy, R.M. Thaler and D.H. Wolfe, Phys. Rev. C 29, 1582-1585 (1984).
- 26. Momentum Space Approach to Microscopic Effects in Elastic Proton Scattering, A. Picklesimer, P.C. Tandy, R.M. Thaler and D.H. Wolfe, Phys. Rev. C 30, 1861-1879 (1984).
- 27. Relativistic (Dirac Equation) Effects in Microscopic Elastic Scattering Calculations, M.V. Hynes, A.Picklesimer, P.C. Tandy, and R.M. Thaler, Phys. Rev. C 31, 1438-1463 (1985).
- 28. Particle-hole Strength Excited in the <sup>48</sup>Ca(p, n)<sup>48</sup>Sc Reaction at 134 and 160 MeV: Gamow-Teller Strength, B.D. Anderson, T. Chittrakarn, A.R. Baldwin, C. Lebo, R. Madey, P.C. Tandy, J.W. Watson, B.A. Brown, and C.C. Foster, Phys. Rev. C 31, 1161-1172 (1985).
- 29. Spin Observables in Elastic Proton Scattering, B. Aas, M.V. Hynes, A. Picklesimer, P.C. Tandy and R.M. Thaler, Phys. Rev. C 32, 231-238, (1985).
- 30. Inclusive Neutron Spectra at Zero Degrees form the Reactions Pb(Ne,n)X and NaF(Ne,n)X at 390 and 790 MeV per Nucleon, R. Madey, J. Varga, A.R. Baldwin, B.D. Anderson, R.A. Cecil, G. Fai, P.C. Tandy, J.W. Watson, and G.D. Westfall, Phys. Rev. Lett. **55**, 1453-1456 (1985).
- 31. Cross Section and Analyzing Power for the Isovector 'Stretched' 6<sup>-</sup> State in the <sup>28</sup>Si(p, n)<sup>28</sup>P Reaction, A. Fazely, R. Madey, B.D. Anderson, A.R. Baldwin, C. Lebo, P.C. Tandy and J.W. Watson, W. Bertozzi, T. Buti, M. Finn, C. Hyde-Wright, J. Kelley, M.A. Kovash, B. Murdock, B. Pugh and C.C. Foster, Nucl. Phys. A443, 29-38 (1985).
- 32. Dynamical Models of  $\bar{p}$ -Nucleus Elastic Scattering, A. Picklesimer, P.C. Tandy and J.A.Tjon, Phys. Lett. **163B**, 311-316 (1985).
- 33. Relativistic Scattering Operators for Dirac Particles: Structure, Symmetries and Reconstruction, A. Picklesimer and P.C. Tandy, Phys. Rev. C34, 1860-1894 (1986).
- 34. Pauli Distortion Effect on the First-Order Optical Potential, K.M. Maung and P.C. Tandy, Phys. Rev. C **34**, 2008-2011 (1986).
- 35. Interpretation of Relativistic Dynamical Effects in Proton-Nucleus Scattering, A. Picklesimer and P.C. Tandy, Phys. Rev. C35, 1174-1177 (1987).

- 36. Gamow-Teller and M1 Strength in the  ${}^{32}S(p,n){}^{32}Cl$  Reaction at 135 MeV, B.D. Anderson, T. Chittrakarn, A.R. Baldwin, C. Lebo, R. Madey, P.C. Tandy, and J.W. Watson, Phys. Rev. C 36, 2195-2205 (1987).
- 37. Reply to Comment on 'Interpretation of Relativistic Dynamical Effects in Proton-Nucleus Scattering', A. Picklesimer and P.C. Tandy, Phys. Rev. C37, 1335-1337 (1988).
- 38. Separable Approximation Method for Two-Body Relativistic Scattering, P.C. Tandy and R.M. Thaler, Phys. Rev. C 37, 1142-1147 (1988).
- 39. Three-Body Dynamics in the  $\bar{N}NN$  System, G.P. Latta and P.C. Tandy, Phys. Lett. B**209**, 14-17 (1988).
- 40. Off-Shell Effects from Meson Exchange in the Nuclear Optical Potential, C. Elster and P.C. Tandy, Phys. Rev. C 40, 881-886 (1989).
- 41. Full Folding Optical Potentials in Elastic Proton Nucleus Scattering, C. Elster, T. Cheon, E.F. Redish and P.C. Tandy, Phys. Rev. C 41, 814-827 (1990).
- 42. Annihilation Shifts and Widths of the Atomic Levels, G.P. Latta and P.C. Tandy, Phys. Rev. C 42, 1207-1210 (1990).
- 43. Chiral Solitons with Quarks and Composite Mesons, M.R. Frank, P.C. Tandy and G. Fai, Phys. Rev. C 43, 2808-2820 (1991).
- 44. Composite Mesons in Self-Confining Chiral Solitons, P.C. Tandy and M.R. Frank, Aust. J. Phys. 44, 181-199 (1991).
- 45. Confining Quark Condensate Model of the Nucleon, M.R. Frank and P.C. Tandy, Phys. Rev. C 46, 338-346 (1992).
- 46. Nonlocal Field Theory Model for Nuclear Matter, V.K. Mishra, G. Fai, P.C. Tandy, and M.R. Frank, Phys. Rev. C 46, 1143-1146 (1992).
- 47. Gauge Invariance and the Electromagnetic Current of Composite Pions, M.R. Frank and P.C. Tandy, Phys. Rev. C 49, 478-488 (1994).
- 48. Charge Symmetry Breaking via  $\rho-\omega$  Mixing from Model Quark-Gluon Dynamics, K.L. Mitchell, P.C. Tandy, C.D. Roberts and R.T. Cahill, Phys. Lett. B **335**, 282-288 (1994).
- 49. The Off-Shell Axial Anomaly via the  $\gamma^*\pi^0 \to \gamma$  Transition, M.R. Frank, K.L. Mitchell, C.D. Roberts and P.C. Tandy, Phys. Lett. B**359**, 17-22 (1995).
- 50. Meson Transition Form Factors from a QCD Model Field Theory, P.C. Tandy, Prog. Nucl. Part. Phys. **36**, 97 (1996).
- 51. Separable Approximation to the Bethe-Salpeter Equation in QCD, C.J. Burden, L. Qian, C.D. Roberts, P.C. Tandy and M.J. Thomson, Nucl. Phys. B 47, 362-365 (1996).
- 52. Cross-section Measurements for the  ${}^2H(p,n)2p$  Reaction at 135 MeV, B.D. Anderson, A.R. Baldwin, W. Bertozzi, T.N. Buti, A. Fazely, J.M. Finn, C.C. Foster, W. Gloeckle, J. Golak, M.A. Kovash, R. Kurmanov, R. Madey, B. Murdock, P.C. Tandy, J.W. Watson, H. Witala, Phys. Rev. C **54**, 1531-1537 (1996).
- 53. Meson Spectrum from the Bethe-Salpeter Equation, C.J. Burden, L. Qian, C.D. Roberts, P.C. Tandy and M.J. Thomson, Aust. J. Phys. **50**, 95-102 (1997).
- 54. Pion Loop Contribution to  $\rho \omega$  Mixing and Mass Splitting, K.L. Mitchell and P.C. Tandy, Phys. Rev. C **55**, 1477-1491 (1997).
- 55. Ground State Spectrum of Light-quark Mesons, C.J. Burden, Lu Qian, C.D. Roberts, P.C. Tandy, M.J. Thomson, Phys. Rev. C 55, 2649-2664 (1997).

- 56. Hadron Physics from the Global Color Model of QCD, P.C. Tandy, Prog. Part. Nucl. Phys. 39, 117-199 (1997).
- 57. Pion Mass and Decay Constant, P. Maris, C.D. Roberts and P.C. Tandy, Phys. Lett. **B42**, 267-273 (1998).
- 58. Meson Substructure and the  $\rho NN$  and  $\omega NN$  Couplings, P.C. Tandy, Lu Qian and S. Banerjee, Nucl. Phys. **A631**, 482c-486c (1998).
- 59. Inside Mesons: Coupling Constants and Form Factors, P. C. Tandy, in Future Directions in Quark Nuclear Physics, Eds. A. W. Thomas and A. G. Williams, (World Scientific, Singapore), p. 62-71 (1999); nucl-th/9808029.
- 60. Electromagnetic Form Factors of Meson Transitions, P. C. Tandy, Fizika B8, 295-302 (1999).
- 61. Bethe-Salpeter Study of Vector Meson Masses and Decay Constants, P. Maris and P. C. Tandy, Phys. Rev. C60, 055214–1-15, (1999).
- 62. The Quark-Photon Vertex and the Pion Charge Radius, P. Maris and P. C. Tandy, Phys. Rev. C61, 045202–1-11, (2000).
- 63. The  $\pi$ ,  $K^+$ , and  $K^0$  electromagnetic form factors, P. Maris and P. C. Tandy, Phys. Rev. C62, 055204–1-8, (2000).
- 64. *T-Dependence of Pseudoscalar and Scalar Correlations*, P. Maris, C. D. Roberts, S. M. Schmidt and P. C. Tandy, Phys. Rev. **C63**, 25202–1-12, (2001).
- 65. Finite T Meson Correlations and Quark Deconfinement, D. Blaschke, G. Burau, Yu. L. Kalinovsky, P. Maris and P. C. Tandy, Int. J. Mod. Phys. A16, 2267-2291 (2001).
- 66. Electromagnetic Transition Form Factors of Light Mesons, P. Maris and P. C. Tandy, Phys. Rev. C65, 045211–1-13, (2002).
- 67. Nucleon Mass and Pion Loops, M. B. Hecht, M. Oettel, C. D. Roberts, S. M. Schmidt, P. C. Tandy and A. W. Thomas, Phys. Rev. C65, 055204–1-17, (2002).
- 68. Strong Decays of Light Vector Mesons, D. Jarecke, P. Maris and P. C. Tandy, Phys. Rev. C67, 035202–1-10, (2003).
- 69. Confinement Phenomenology in the Bethe-Salpeter Equation, M. S. Bhagwat, M. A. Pichowsky and P. C. Tandy, Phys. Rev. **D67**, 054019–1-10, (2003).
- 70. Covariant QCD Modeling of Light Meson Physics, P. C. Tandy, Prog. Part. Nucl. Phys. **50**, 305-315 (2003).
- 71. Analysis of a Quenched Lattice-QCD Dressed-quark Propagator, M.S. Bhagwat, M.A. Pichowsky, C.D. Roberts and P.C. Tandy, Phys. Rev. C68, 015203–1-9, (2003).
- 72. Aspects and Consequences of a Dressed-quark-gluon Vertex, M.S. Bhagwat, A. Höll, A. Krassnigg, C.D. Roberts and P.C. Tandy, Phys. Rev. C70, 035205, (2004).
- 73. Bethe–Salpeter Meson Masses Beyond Ladder Approximation, P. Watson, W. Cassing and P.C. Tandy, Few Body Sys., **35**, 129–153, (2004).
- 74. Quark-gluon Vertex Model and Lattice-QCD Data, M.S. Bhagwat and P.C. Tandy, Phys. Rev. **D70**, 094039, (2004).
- 75. Non-perturbative QCD Phenomenology and Light Quark Physics, P.C. Tandy, Nucl. Phys. **B141**, 9-14 (2005).
- 76. Chiral Extrapolation of Lattice Data for Heavy Meson Hyperfine Splittings, X.-H. Guo, P.C. Tandy, and A.W. Thomas, Few Body Systems, **38** 17-29, (2006).

- 77. QCD Modeling of Hadron Physics, P. Maris and P.C. Tandy, Nucl. Phys. **B161**, 136-152 (2006).
- 78. Quark-gluon Vertex Dressing and Meson Masses Beyond Ladder-rainbow Truncation, H. Matevosyan, A.W. Thomas and P.C. Tandy, Phys. Rev. C75, 045201 (2007).
- 79. Consequences of Fully Dressing Quark-Gluon Vertex Function with Two-point Gluon Lines, H. Matevosyan, A.W. Thomas and P.C. Tandy, J. Phys. G. **34**, 2153-2164 (2007).
- 80. Flavor Symmetry Breaking and Meson Masses, M.S. Bhagwat, L. Chang, Y.-X. Liu, C.D. Roberts and P.C. Tandy, Phys. Rev. C76, 045203 (2007).
- 81. Ian Ellery McCarthy 1930-2005, A. W. Thomas, I. R. Afnan and P. C. Tandy, Historical Records of Australian Science, AAS, 19, 161-189 (2008).
- 82. New Perspectives on the Quark Condensate, S.J. Brodsky, C.D. Roberts, R. Shrock and P.C. Tandy, Phys. Rev. C82, 022201 (2010).
- 83. Abelian Anomaly and Neutral Pion Production, H. L. L. Roberts, C. D. Roberts, A. Bashir, L. X. Gutiérrez-Guerrero and P. C. Tandy, Phys. Rev. C82, 065202 (2010).
- 84. Pion and kaon valence-quark parton distribution functions, T. Nguyen, A. Bashir, C. D. Roberts and P. C. Tandy, Phys. Rev. Cxx, submitted (2011).

### Published Articles in Conference Proceedings:

- 1. Exact-Unitary Model Calculations of Three-Particle Scattering, R.T. Cahill, I.E. McCarthy, and P.C. Tandy, Few Particle Problems in the Nuclear Interaction, edited by I. Slaus et al. Proceedings of the International Conference, Los Angeles; North Holland, 1972, pp. 372-375.
- 2. Coulomb Effects in the Near-on-Shell Nucleon-Nucleon T-Matrix, P.C. Tandy and I.E. Mc-Carthy, Few Particle Problems in the Nuclear Interaction, edited by I. Slaus et al. Proceedings of the International Conference, Los Angeles; North Holland, 1972, pp. 90-92.
- 3. A New Cluster Model of Nuclear Reactions, E.F. Redish and P.C. Tandy, in Clustering Phenomena in Nuclei. Proceedings of the Second International Conference, College Park, Maryland: U.S.E.R.D.A., ORO-4856-26, 1975, pp. 146-147.
- 4. Three-Body Approach to the Nucleon-Nucleus Optical Potential, P.C. Tandy, E.F. Redish, and D. Bollle, **Few Body Dynamics**, edited by A.N. Mitra et al. Proceedings of the VII International Conference on Few Body Problems in Nuclear and Particle Physics, Delhi; North Holland, 1976, pp. 405-407.
- The Relationship of Connected-Kernel Theory to the Schrodinger Equation and Implications for Reaction Models, P.C. Tandy, Gy. Bencze, M. L'Huillier, and E.F. Redish, in Reaction Models 1977, edited by L.P. Csernai. Budapest, Hungary: CRIP, 1978, pp. 93-97.
- The Structure of the Scattering Wave Function in the N-Body Problem, M. L'Huillier, E.F. Redish, and P.C. Tandy, Reaction Models 1977, edited by L.P. Csernai. CRIP, Budapest, Hungary, 1978, pp. 89-92.
- 7. Non-Relativistic and Relativistic Multiple Scattering, P.C. Tandy, Chapter 1 in Relativistic Dynamics and Quark-Nuclear Physics, Eds., M.B. Johnson and A. Picklesimer (John Wiley, New York, 1986), p. 3-70.
- 8. Meson Exchange Interactions and Off-Shell Effects in Proton-Nucleus Elastic Scattering, C. Elster and P.C. Tandy, in **Relativistic Nuclear Many-Body Physics**, Eds., B.C. Clark, R.J. Perry, and J.P. Vary (World Scientific, Singapore, 1989), p. 512-520.

- 9. Composite Meson Fields in Quark-Meson Solitons, M.R. Frank, P.C. Tandy and G. Fai, in From Fundamental Fields to Nuclear Phenomena, Eds., J.A. McNeil and C.E. Price, (World Scientific, Singapore, 1991) p. 252-258.
- 10. Non-local Condensates in a Simple Nucleon Model, P.C. Tandy in **QCD Vacuum Structure**, Eds. H.M. Fried and B. Müller, (World Scientific, Singapore, 1993) p. 164-169.
- 11. Nonperturbative QCD up to One-pion-loop for  $\rho \omega$  Mixing and Mass Splitting, K.L. Mitchell, P.C. Tandy, C.D. Roberts and R.T. Cahill, in **Few Body Dynamics**, ed. F. Gross, AIP Conf. Proc. **334**, (1995), p. 604-607.
- 12. Modeling Nonperturbative QCD for Mesons and Couplings, P. C. Tandy, in Quantum Chromodynamics, Eds. H.M. Fried and B. Müller, (World Scientific, Singapore), p. 162-170 (1999); nucl-th/9812005.
- 13. Mesonic Correlations and Quark Deconfinement, D. Blaschke and P. C. Tandy, in Understanding Deconfinement in QCD, Eds. D. Blaschke, F. Karsch and C. D. Roberts, (World Scientific, Singapore), p. 218-230 (1999); nucl-th/9905067.
- 14. The Quark-Photon Vertex and Meson Electromagnetic Form Factors, P. Maris and P. C. Tandy, Nucl. Phys. **A663,664**, 401c-404c, (2000).
- 15. Dyson-Schwinger Equation Approach to the QCD Deconfinement Transition and J/ψ Dissociation, D. Blaschke, G. Burau, M. I. Ivanov, Yu. L. Kalinovsky, and P. C. Tandy, in Progress in Nonequilibrium Green's functions, Ed. M. Bonitz, (World Scientific, Singapore, 2000), p. 392–402; hep-ph/0002047.
- 16. Soft QCD Modeling of Meson Electromagnetic Form Factors, P. C. Tandy, in Lepton Scattering, Hadrons and QCD, Eds. W. Melnitchouk, A. W. Schreiber, A. W. Thomas and P. C. Tandy, (World Scientific, Singapore), p. 192-200, (2001).
- 17. Workshop on Lepton Scattering, Hadrons and QCD, P. C. Tandy, Nuclear Physics News, 11, No. 4, 13-14, (2001).
- 18. QCD Modeling of Hadron Physics , P. Maris and P. C. Tandy, Nucl. Phys. Proc. Suppl. 161, 136-152 (2006).
- 19. Non-perturbative QCD Modeling and Meson Physics, T. Nguyen, N. A. Souchlas, and P. C. Tandy, XIII<sup>th</sup> School on Particles and Fields, AIP Conf. Proc. 1116, 327-333 (2009).
- 20. Soft and Hard Scale QCD Dynamics in Mesons, T. Nguyen, N. A. Souchlas, and P. C. Tandy, XII<sup>th</sup> Workshop on Particles and Fields, AIP Conf. Proc. xx, to be published (2010).
- 21. QCD Dynamics in Mesons at Soft and Hard Scales, T. Nguyen, N. A. Souchlas, and P. C. Tandy, Achievements and New Directions in Subatomic Physics, AIP Conf. Proc. 1261, 13-18 (2010).
- 22. Modeling QCD for Hadron Physics, P. C. Tandy, Meson-Nucleon Physics and the Structure of the Nucleon, AIP Conf. Proc. xxx, submitted (2010).

### Invited Papers by Tandy at Conferences:

- The Relationship of Connected-Kernel Theory to the Schrodinger Equation and Implications for Reaction Models, P.C. Tandy, Gy. Bencze, M. L'Huillier, and E.F. Redish, in Reaction Models 1977, edited by L.P. Csernai. Budapest, Hungary: CRIP, 1978, pp. 93-97.
- 2. Nuclear Reaction Theory with Two Continuum Nucleons: Effective Few-Body Models, Tri-State Nuclear Theory Conference, Ohio State University, Columbus, Ohio, April 4-5, 1980.

- 3. Multiple Scattering Aspects of Knock-out Reactions, Forum on Quasi-Free Knock-out and Scattering Reactions, Indiana University Cyclotron Facility, Bloomington, Indiana, October 1980.
- 4. Microscopic Effects in Multiple Scattering Above 100 MeV, Workshop on Microscopic Approaches to Nucleon-Nucleus Scattering, Asilomar, California, May 24-27, 1983.
- 5. Theory of Effective Interaction and Multiple Scattering, University of Alberta/TRIUMF Workshop on Studying Nuclei with Medium Energy Protons, Edmonton, Alberta, Canada, July 11-13, 1983.
- Nucleon and Anti-nucleon Scattering in the Relativistic Impulse Approximation, 1984 Meeting
  of the Division of Nuclear Physics, American Physical Society, Bull. Am. Phys. Soc. 29, 1053
  (1984).
- 7. Non-Relativistic and Relativistic Multiple Scattering, Series of 4 lectures presented at the Workshop on Relativistic Dynamics and Quark-Nuclear Physics, Los Alamos, New Mexico, June 1985, Eds., M.B. Johnson and A. Picklesimer, (John Wiley, New York, 1986), p. 3.
- 8. Composite Mesons in Self-Confining Chiral Solitons, P.C. Tandy and M.R. Frank, in Quantum Structures, a meeting in Honor of Ian E. McCarthy on his sixtieth birthday, Adelaide, Australia, July 13, 1990.
- 9. Ten Questions in Proton-Nucleus Scattering, Workshop on Proton-Nucleus Scattering at LAMPF, Los Alamos National Laboratory (July 9, 1991).
- Non-local Condensates in a Simple Nucleon Model, P.C. Tandy, in QCD Vacuum Structure, Eds. H.M. Fried and B. Müller, (World Scientific, Singapore, 1993) p. 164-169, Workshop on QCD Vacuum Structure, American University of Paris, June 1-5, 1992.
- 11. Nonlocal Nambu Modes and QCD Modelling of the Nucleon, Argonne National Laboratory Theory Institute on Nonperturbative QCD and QCD Modelling, Chicago, July 13-17, 1992.
- 12. Hadron Dynamics from a Quark Field Model, series of four invited lectures for the program of the Hampton University Graduate Summer School (HUGS) at CEBAF, July 1993.
- 13. The  $\gamma\pi\gamma$  Axial Anomaly Form Factor, Workshop on Non-Perturbative Methods in Field Theory, National Center for Theoretical Physics, ANU, Canberra, Australia, May 3, 1995.
- 14. Meson Transition Form Factors from a QCD Model Field Theory, 17th International School of Nuclear Physics: Quarks and Hadrons in Nuclei, Erice, Italy, September, 1995.
- 15. Estimating Hadron Coupling Constants from Approximate Bethe-Salpeter Meson Solutions, Argonne National Laboratory Theory Institute on QCD-based Studies of Hadron Spectroscopy & Interactions, Chicago, July 22-26, 1996.
- 16. Hadron Physics from Quarks, 1997 Burr Oak Workshop on Nuclear Physics, Burr Oak/Ohio University, May 3, 1997.
- 17. Spectrum and Form Factors of Light Mesons, 8th International Workshop on Light-Cone QCD and Non-perturbative Hadronic Physics, Lutsen, Minnesota, August 11-22, 1997.
- 18. Modeling QCD for Mesons and Form Factors, Series of 3 lectures at the Research Workshop on Deconfinement at Finite Temperature and Density, Dubna, Russia, October 1-29, 1997.
- 19. Inside Mesons: Coupling Constants and Form Factors, Workshop on Future Directions in Quark Nuclear Physics, Adelaide, March 9 March 20, 1998.
- 20. Modeling Nonperturbative QCD for Mesons and Couplings, 4<sup>th</sup> Workshop on Quantum Chromodynamics, American University of Paris, June 1-6, 1998.

- 21. Electromagnetic Form Factors of Meson Transitions, International Conference on Nuclear and Particle Physics with CEBAF at Jefferson Lab, Dubrovnik, Croatia, November 3-10, 1998.
- 22. Mesonic Correlations and Quark Deconfinement, International Workshop on Understanding Deconfinement in QCD, ECT\* Trento, Italy, March 1-13, 1999.
- 23. Mesonic Correlations and Quark Deconfinement, Workshop on Quark Matter in Particle and Astrophysics, Rostock, Germay, November 11-12, 1999.
- 24. Chiral Symmetry Restoration, Deconfinement, and Meson Correlations at Finite T, International Workshop on Confinement, The Erwin Schrodinger Institute for Mathematical Physics, Vienna, Austria, June 2000.
- 25. Continuum QCD Modeling of Light Meson Observables, Argonne National Laboratory Theory Institute on Perspectives in Continuum Strong QCD, Chicago, August 14-18, 2000.
- 26. Soft QCD Modeling of Meson Electromagnetic Form Factors, Workshop on Lepton Scattering, Hadrons and QCD, Adelaide, Australia, March 26–April 6, 2001.
- 27. QCD Modeling of Mesons and Form Factors, Workshop on Quarks and Hadrons in Continuum Strong QCD, Tuebingen, Germay, September 3-6, 2001.
- 28. Light Meson Physics Modeled on the Dyson-Schwinger Equations of QCD, International Workshop on The Structure of the Nucleon, ECT\* Trento, Italy, September 2002.
- 29. Covariant QCD Modeling of Light Meson Physics, 24<sup>th</sup> International School of Nuclear Physics: Quarks and Hadrons in Nuclei, Erice, Italy, September, 2002.
- 30. *Inside Mesons*, International Workshop on Aspects of Confinement and Nonperturbative QCD, ECT\* Trento, Italy, March 2003.
- 31. Inside Goldstone Bosons, U.S.-Japan Workshop on Chiral Dynamics, Hawaii, March 2003.
- 32. Non-perturbative QCD Phenomenology and Light Quark Physics, International Workshop, QCD Down Under, Adelaide, Australia, March 10–19, 2004.
- 33. QCD Modeling of Hadron Physics, P. Maris and P. C. Tandy, International Workshop, Light-Cone QCD and Non-perturbative Hadron Physics, Cairns, Australia, July 7-15, 2005.
- 34. Soft-QCD Modeling of Di-quark Correlations and Mesons for the Study of the Nucleon and its Resonances, Theory Institute Workshop, New Theoretical Tools for Nucleon Resonance Analysis, Argonne National Laboratory, August 29 September 2, 2005.
- 35. Beyond the Ladder, 2006 Light-Cone QCD Workshop, Minneapolis, May 15-19, 2006.
- 36. QCD Modeling of Hadron Physics,  $4^{th}$  International Conference on Quark Nuclear Physics, Madrid, Spain, June 2006.
- 37. Covariant Modeling of Hadrons, International Workshop on Relativistic Few-Body Physics, UNICSUL, Sao Paulo, Brazil, August 17-18, 2006.
- 38. Hadrons in QCD: Several Effective Degrees of Freedom, 18<sup>th</sup> International Conference on Few Body Problems in Physics, Santos–Sao Paulo, Brazil, August 21-26, 2006.
- 39. Covariant Modeling of QCD for Hadrons, International Workshop on QCD and the Strong Interactions, Adelaide, Australia, September 2006.
- 40. The Pion Form Factor: Theory, International Workshop on Hadron Form Factors, ECT\*, Trento, Italy, May 12-23, 2008.
- 41. Non-perturbative QCD Modeling and Meson Physics, International Workshop on Tropical QCD, Pt. Douglas, Australia, July 27-August 2, 2008.

- 42. Non-perturbative QCD Modeling and Meson Physics, XIII<sup>th</sup> Mexican School on Particles and Fields, San Carlos, Sonora, Mexico, October 6-11, 2008.
- 43. A Perspective on Meson Physics via DSEs, 2nd International Workshop on Non-perturbative Methods in Field Theory, Morelia, Mexico, March 30–April 5, 2009.
- 44. Quark Dressing Within Mesons: Light to Heavy, Argonne/University of Chicago Joint Theory Institute Workshop on Dynamics of Symmetry Breaking, Argonne National Laboratory, April 13-17, 2009.
- 45. How Much Meson Physics Can One Tie to Dynamical Chiral Symmetry Breaking?, International Workshop on QCD Green's Functions, Confinement, and Phenomenology, ECT\*, Trento, Italy, September 7-11, 2009.
- 46. Soft and Hard Scale QCD Dynamics in Mesons, XII<sup>th</sup> Mexican Workshop on Particles and Fields, Mazatlan, Sinaloa, Mexico, November 9-14, 2009.
- 47. Soft and Hard Scale QCD Dynamics in Mesons, International Workshop on Achievements and New Directions in Subatomic Physics, Adelaide, Australia, February 15-19, 2010.
- 48. Modeling QCD for Hadron Physics, 12<sup>th</sup> International Conference on Meson-Nucleon Physics and the Structure of the Nucleon, Williamsburg, Virginia, May 31-June 4, 2010.
- 49. Aspects of Meson Structure and Dynamics, International Workshop on QCD from the Bound State's Perspective, ECT\*, Trento, Italy, August 2-6, 2010.
- 50. Soft and Hard Scale QCD Dynamics in Mesons, International Workshop on AdS/CFT, Dyson-Schwinger Equations, and Other Approaches to QCD, Kavli Institute at the Chinese Academy of Science, Beijing, China, October -December, 2010.

### Contributed Papers at Scientific Conferences (since 2003):

- 1. Nonperturbative Model of the Quark-gluon Vertex, M. S. Bhagwat and P. C. Tandy, Bull. Am. Phys. Soc. 49, 28 (2004).
- 2. Selected oral presentation Analysis of Full-QCD and Quenched-QCD Lattice Propagators, M. S. Bhagwat and P. C. Tandy, AIP Conf, Proc. 842, 225-227 (2006).
- 3. Bethe-Salpeter Study of Heavy-light Pseudoscalar and Vector Meson Masses, N. Souchlas, P. Maris and P. C. Tandy, Bull. Am. Phys. Soc. **51**, 30 (2006).
- 4. Current-current correlators as a probe of the chirality-flip scale in QCD, T. Nguyen and P.C. Tandy, Bull. Am. Phys. Soc. **xx**, xx (2006).
- 5. Quark Dressing and Constituent Mass Behavior for Heavy Quark Mesons, N. Souchlas, P. Maris and P. C. Tandy, Bull. Am. Phys. Soc. **53**, 250 (2008).
- 6. Estimate of  $\langle \bar{q}q\bar{q}q \rangle$  from the V-A Current-Current Correlator, T. Nguyen and P.C. Tandy, Bull. Am. Phys. Soc. **53**, 250 (2008).

### Presentations by Tandy-Seminars and Colloquia (since 2003):

- 1. Ab Initio Calculations of Light Mesons, Seminar, Universität Rostock, Rostock, Germany (July 21, 2003).
- 2. QCD Modeling for Hadron Physics via DSEs and Lattice Propagators, Seminar, Universität Bielefeld, Germany, (July 22, 2004).
- 3. Between the Lattice and a Hard Place: Soft QCD for Hadron Physics, Seminar, Theory Group, Thomas Jefferson National Accelerator Facility, Newport News, Virginia (May 16, 2005).

- 4. Beyond the Rainbow, Seminar, Institute for Theoretical Physics, University of Graz, Austria (May 31, 2006).
- 5. Modeling Non-perturbative QCD for Hadron Physics, Seminar, Institute for Theoretical Physics, Peking University, China (October 25, 2007).
- 6. Modeling Non-perturbative QCD for Hadron Physics, Seminar, Department of Physics, Nanjing University, Nanjing, China (October 29, 2007).
- 7. Modeling Non-perturbative QCD for Hadron Physics, Seminar, Department of Physics, Nanjing Normal University, Nanjing, China (October 30, 2007).
- 8. Seeking Insight for NPQCD from Heavy Quark Mesons and Current Correlators, Seminar, Theory Group, Physics Division, Argonne National Laboratory (December 11, 2007).
- 9. Do We Know How QCD Works Inside Hadrons?, Colloquium, Department of Physics, University of Kansas, Lawrence, Kansas (March 31, 2008).
- 10. Non-perturbative QCD Modeling and Hadron Physics, Seminar, Nuclear Theory Center, Indiana University, Bloomington, Indiana (February 12, 2009).
- 11. Quarks and Gluons: Known Unknowns, and Unknown Knowns, Presentation at Akron Physics Club, Akron, Ohio (January 25, 2010).
- 12. QCD Dynamics and Meson Structure: Soft and Hard, Seminar, Theory Group, Physics Division, Argonne National Laboratory (September 9, 2010).
- 13. Soft and Hard Scale QCD Dynamics in Mesons, A series of three graduate program lectures, Department of Physics, Nanjing University, Nanjing, China (October 17, 2010).

### Selected KSU Service

## University Service:

- Dean Weber Review Committee (Fall 2009)
- Mathematics Program Review (Spring 2010)
- BSMD Admissions Committee (1986-1998)
- Provost's Promotion Advisory Board (1990-91)
- Working Group on RCM Budgeting for Research & Graduate Studies (2007)
- Steering Committee for the Celebration of Scholarship (2006-07)
- Working Group on Reform of Hiring and Appointment Policy for Post-Doctoral Researchers (2007)
- Review Committee for PhD Program in the Graduate School of Business Management (2005)
- Graduate College Council (1982-85; 91-92)
- Review Committee for Biology Undergraduate Program (1983)

# A&S College Service:

- College Advisory Committee (CAC) (1986-87; 95-96; 99-00)
- Salary Review Committee (1987)

### Departmental Service:

- Ad hoc RTP Committee (since 1985)
- Faculty Advisory Committee (FAC) (1985-86; 86-87; 88-89; 95-96; 99-00; 2001-01; 04-05; 09-10)
- Physics Chair Review Committee (1982-83; 85-86; 98-99 (Chair))
- Physics Chair Search Committee (1982-83)
- Faculty Search Committee (09-10)
- Graduate Program Committee (1980-92)