

Curriculum Vita

September 2002

James J. Griffin
Professor of Physics

I. Education:

B.S.	Villanova College	1952
M.S.	Princeton University	1955
Ph.D.	Princeton University	1956

II. Experience in Higher Education:

1955-56	Institute for Theoretical Physics	Fulbright Scholar
1959-60	National Science Foundation Fellow, U. of Birmingham, England	Postdoctoral Scholar
1965-66	University of Wisconsin, Madison, WI	Visiting Lecturer
1966-68	University of Maryland, College Park, MD	Assistant Professor
1968-73	University of Maryland, College Park, MD	Associate Professor
1968-69	Department of Physics & Astronomy, U. of Maryland	Associate Chairman
1973-	Department of Physics & Astronomy, U. of Maryland	Professor

III. Experience Other than Higher Education:

1956-65	Los Alamos Scientific Laboratory (LASL), Los Alamos, NM	Theoretical Physicist
1965	Special Summer Lecture Series on Nuclear Fission Oak Ridge National Laboratories (ORNL), Oak Ridge, TN	Summer Lecturer
1970	University of California, Lawrence Berkeley Laboratory (LBL), Berkeley, CA	Vis. Summer Scientist
1972-73	John Simon Guggenheim Foundation University of California, LBL, Berkeley, CA	Fellow and Vis. Scientist
1975-76	Alexander von Humboldt Foundation Award, W. Germany	Senior U.S. Scientist
1975	BNL, Brookhaven, NY	Vis. Summer Lecturer
1980	People's Republic of China	Guest Scientist
1981	LASL, Los Alamos, NM	Vis. Summer Scientist
1981	Gesellschaft f. Schwerionenforschung (GSI), Darmstadt, W. Germany	Visiting Scientist
1981	Weizman Inst., Rehovot, Israel	Guest Lecturer
1984	CNRS, France	Guest Scientist
1985	Los Alamos National Laboratory (LANL), Los Alamos, NM	Visiting Scientist
1987	ORNL, Oak Ridge, TN	Visiting Scientist
1987-88	LANL, Los Alamos, NM	Visiting Scientist
1988	Inst. des Sciences Nucleaires (ISN), Grenoble, France	Visiting Professor
1988	GSI, Darmstadt, West Germany	Visiting Scientist
1988	Inst. f. Theor. Physik & T. H. Darmstadt, W. Germany	Visiting Scientist
1989	Centre d'Etudes Nucleaire (CEN), Bordeaux-Gradignan, France	Visiting Professor
1991	CEN, Bordeaux-Gradignan, France	Visiting Professor

IV. Professional Activities:

Oak Ridge Nat'l. Labs., Visiting Com. for Physics and Electronuclear Divisions
 Correspondent Editor, *Comments on Nuclear and Particle Physics* (Gordon and Breach, London, England)
 Organizing Com., Second I.A.E.A. Symp. on the Chemistry and Physics of Fission (July, 1969)
 Vienna, Austria
 Consultant, Los Alamos Scientific Lab., Los Alamos, NM
 Consultant, Argonne Nat'l. Lab., Argonne, IL
 Consultant, Gulf General Atomic Corporation, La Jolla, CA
 Referee of scientific papers for *Physical Review*, *Physical Review Letters*, *Nuclear Physics*, *Journal of Mathematical Physics and Science*
 Referee for National Science Foundation and U.S. Dept. of Energy
 Gordon Research Conferences on Nuclear Chemistry; Chairman 1974, Vice-Chairman, 1973
 Organizing Com., 2nd Int'l. Conf. on Clustering Phenomena in Nuclei (April 1975) College Park, MD
 American Physical Society, Division of Nuclear Physics
 American Physical Society, Division of Science and Society
 American Physical Society, Division of Nuclear Chemistry
 American Association of University Professors
 American Association of Physics Teachers
 American Association for the Advancement of Science
 National Education Association
 Maryland State Teacher's Assoc., Member, Executive Board for Council on Higher Education
 A.P.S. Committee on International Freedom of Scientists
 Consultant, The Oak Ridge Nat'l. Lab., Oak Ridge, TN
 Organizing Com., IIIrd Int'l. Workshop on Nuclear Dynamics, Copper Mountain, CO, April, 1984
 Organizing Com. XIII Int'l. Conf. on Group Theoretical Methods in Physics, College Park, MD, May, 1984
 Organizing Com. IV Int'l. Winter Workshop on Nuclear Dynamics, Copper Mountain, CO, March, 1986
 Organizing Com., Int. Conf. on Physics of Phase Space, College Park, MD, May, 1986
 Advisory Com. for "Fifty Years with Fission", Int'l. Conf., Washington, DC, and Gaithersburg, MD,
 April 1989

V. Publications and Scholarly Works

*Dr. Griffin's complete publications/seminar/lecture list comprises more than 25 pages.
 We replace it here by a numerical summary of his scholarly works, and a selection of six
 of his most significant published papers.

<u>Role</u>	<u>Type of Work</u>	<u>Title</u>	<u>Year</u>	<u>Award</u>	<u>Year</u>
Author	Scientific Paper	<i>Phys.Rev.Lett.</i> 17, p. 478	1966	Current Contents Citation Classic	1985
Author/Co-Author	76 Scientific Papers	Phys. Rev.; Phys. Rev. Lett; Nucl. Phys; etc.	1957-pres.		
Speaker	77 Invited Lectures	Various Int'l. Scientific Mtgs.	1959-pres.		
Contributing Author	61 Articles	In Edited Sci. Books/Proc.	1960-pres.		
Lecturer	5 Intl. Res. Phys. Schools	Poland, Puerto Rico, Japan, Israel, Romania	1978-pres.		
Translator	Book by E. P. Wigner	<i>Group Theory and Its Applications to Quantum Mechanics</i>	1959		

Six Selected Most Significant Publications

1. J. J. Griffin, "The Sharp Lepton Problem and the $C(Q_0)$ Scenario," *International Journal of Modern Physics A* **6**, 1985 (1991), and in *Topics in Atomic and Nuclear Collisions*, Predeal, Romania, 1992, eds. A. Calboreanu and V. Zoran, p. 419, New York: Plenum Press (1994).
2. J. J. Griffin, P. C. Lichtner, and M. Dworzecka, "The Time-Dependent S-Matrix Hartree-Fock Theory of Complex Reactions," *Physical Review C* **21**, 1351 (1980).
3. J. J. Griffin, "Statistical Model of Intermediate Structure," *Physical Review Letters* **17**, 478 (1966). [This paper became a "Citation Classic" in *Current Contents, Physical Chemistry and Earth Science* **25**, 18 (1985).]
4. K.-K. Kan, J. J. Griffin, P. C. Lichtner, and M. Dworzecka, "TDHF Eigenstates: Gauge Invariant Periodic Solutions," *Nuclear Physics A* **332**, 109 (1979).
5. J. J. Griffin, "Beta Decay and Delayed Gammas from Fission Fragments," *Physical Review* **134 B**, 817 (1964).
6. J. J. Griffin and J. A. Wheeler, "Collective Motion in Nuclei by the Method of Generator Coordinates," *Physical Review* **108**, 311 (1957).

VI. Research Grants:

- USAEC Contract #AT-(40-1)3491, "Theoretical Studies in Nuclear Reactions and Nuclear Structure," January 1-December 31, 1968, \$160,000, Co-Principal Investigator with W. M. MacDonald.
- USAEC Contract #AT-(40-1)3765, "Theoretical Studies in Nuclear Reactions and Nuclear Structure," January 1-December 31, 1969, \$172,500, Co-Principal Investigator with W. M. MacDonald.
- USAEC Contract #AT-(40-1)3765, "Theoretical Studies in Nuclear Reactions and Nuclear Structure," January 1-December 31, 1970, \$180,000, Principal Investigator.
- USAEC Contract #AT-(40-1)3765, "Theoretical Studies in Nuclear Reactions and Nuclear Structure," January 1-December 31, 1971, \$185,000, Senior Investigator.
- USAEC Contract #AT-(40-1)3765, "Theoretical Studies in Nuclear Reactions and Nuclear Structure," January 1-December 31, 1972, \$200,000, Senior Investigator.
- USAEC Contract #AT-(40-1)3765, "Theoretical Studies in Nuclear Reactions and Nuclear Structure," January 1-December 31, 1973, \$214,865, Co-Principal Investigator with W. M. MacDonald and M. K. Banerjee.
- USAEC Contract #AT-(40-1)4317, "Theoretical Studies in Nuclear Reactions and Nuclear Structure," January 1-December 31, 1974, \$220,000, Co-Principal Investigator with W. M. MacDonald.
- USAEC Contract #AT-(40-1)4856, "Theoretical Studies in Nuclear Reactions and Nuclear Structure," January 1, 1975-May 31, 1976, \$396,000, Co-Principal Investigator with M. K. Banerjee and W. M. MacDonald.
- USERDA Contract #AT-(40-1)5126, "Theoretical Studies in Nuclear Reactions and Nuclear Structure," June 1, 1976-October 31, 1977, \$454,000, Principal Investigator with M. K. Banerjee.
- USDOE Contract #EY-76-S-05-5126-A003, "Theoretical Studies in Nuclear Reactions and Nuclear Structure," November 1, 1977-October 31, 1978, \$345,000, Co-Principal Investigator with W. M. MacDonald.
- USDOE Contract #EY-76-S-05-5126-A003, "Theoretical Studies in Nuclear Reactions and Nuclear Structure," November 1, 1978-October 31, 1979, \$370,000, Senior Investigator.
- USDOE Contract #EY-76-S-05-5126-A003, "Theoretical Studies in Nuclear Reactions and Nuclear Structure," November 1, 1979-October 31, 1980, \$405,000, Senior Investigator.
- USDOE Contract #EY-76-S-05-5126-A003, "Theoretical Studies in Nuclear Reactions and Nuclear Structure," November 1, 1980-October 31, 1981, \$440,000, Senior Investigator.

USDOE Contract #EY-76-S-05-5126-A003, "Theoretical Studies in Nuclear Reactions and Nuclear Structure," November 1, 1981-November 31, 1982, \$448,000, Principal Investigator with M. K. Banerjee.

USDOE Contract #EY-76-S-05-5126-A003, "Theoretical Studies in Nuclear Reactions and Nuclear Structure," December 1, 1982-November 30, 1983, \$493,000, Senior Investigator.

USDOE Contract #DE-ASO5-76-5126-A003, "Theoretical Studies in Nuclear Reactions and Nuclear Structure," December 1, 1983-November 30, 1984, \$530,000, Senior Investigator.

USDOE Contract #DE-ASO5-76-5126-A003, "Theoretical Studies in Nuclear Reactions and Nuclear Structure," December 1, 1984-November 30, 1985, \$557,000, Co-Principal Investigator with S. J. Wallace.

USDOE Contract #DE-ASO5-76-5126-A003, "Theoretical Studies in Nuclear Reactions and Nuclear Structure," December 1, 1985-November 30, 1986, \$530,000, Principal Investigator.

USDOE Grant #DE-FG05-87ER-40322, "Theoretical Studies in Nuclear Reactions and Nuclear Structure," December 1, 1986-November 30, 1987, \$490,000, Senior Investigator.

USDOE Grant #DE-FG05-87ER-40322, "Theoretical Studies in Nuclear Reactions and Nuclear Structure," December 1, 1987-November 30, 1988, \$540,000, Senior Investigator.

USDOE Grant #DE-FG05-87ER-40322, "Theoretical Studies in Nuclear Reactions and Nuclear Structure", December 1, 1988-November 30, 1989, \$561,000, Principal Investigator.

USDOE Grant #DE-FG05-87ER-40322, "Theoretical Studies in Nuclear Reactions and Nuclear Structure", December 1, 1989-November 30, 1990, \$586,000, Co-Principal Investigator with S. J. Wallace.

USDOE Grant #DE-FG05-87ER-40322, "Theoretical Studies in Nuclear Reactions and Nuclear Structure", December 1, 1990-November 30, 1991, \$585,000, Senior Investigator.

USDOE Grant #DE-FG05-87ER-40322, "Theoretical Studies in Nuclear Reactions and Nuclear Structure", December 1, 1991-November 30, 1992, \$595,000, Co-Principle Investigator with T. D. Cohen.

USDOE Grant #DE-FG02-93ER-40762, "Theoretical Studies in Hadronic and Nuclear Physics," December 1, 1992-November 30, 1993, \$620,000, Principal Investigator.

USDOE Grant #DE-FG02-93ER-40762, "Theoretical Studies in Hadronic and Nuclear Physics," December 1, 1993-November 30, 1994, \$620,000, Senior Investigator.

USDOE Grant #DE-FG02-93ER-40762, "Theoretical Studies in Hadronic and Nuclear Physics," December 1, 1994-November 30, 1995, \$580,000, Co-Principal Investigator with M. K. Banerjee.

USDOE Grant #DE-FG02-93ER-40762, "Theoretical Studies in Hadronic and Nuclear Physics," December 1, 1995-November 30, 1996, \$560,000, Principal Investigator.

USDOE Grant #DE-FG02-93ER-40762, "Theoretical Studies in Hadronic and Nuclear Physics," December 1, 1996-November 30, 1997, \$585,000, Co-Principal Investigator.

USDOE Grant #DE-FG02-93ER-40762, "Theoretical Studies in Hadronic and Nuclear Physics," December 1, 1997-November 30, 1998, \$585,000, Principal Investigator.

VII. Ph.D. Theses Directed:

1. James N. P. Lawrence, Ph.D. 1967, Vanderbilt University, Nashville, Tennessee
2. Brij Lal Gambhir, Ph.D. 1971, University of Maryland, College Park, Maryland
3. Pierre Amiot, Ph.D. 1972, University of Maryland, College Park, Maryland
4. Kit-Keung Kan, Ph.D. 1975, University of Maryland, College Park, Maryland
5. Constantine Yannouleas, Ph.D. 1982, University of Maryland, College Park, Maryland

M.S. Thesis Directed:

1. E. V. Lee, M.S. 1972, University of Maryland, College Park, Maryland

VIII. Honors, Awards and Grants:

A. Honors and Awards:

Fulbright Scholar, Inst. for Theoretical Physics, Copenhagen, Denmark, 1955-56
U.S. Nat'l. Science Foundation Postdoctoral Research Fellow, Univ. of Birmingham, England, 1959-60
John Simon Guggenheim Foundation Fellow, Lawrence Berkeley Lab., Univ. of California, Berkeley, CA, 1972-73
Alexander von Humboldt Foundation Senior Scientist Fellowship, Justus Liebig Univ., Geissen and Hahn-Meitner-Institute, Berlin, Germany, 1975-76
Distinguished Visiting Lecturer, Univ. of Toronto, Canada, March, 1978 (three lectures)
Invited Lecturer, Organization of American States Summer School, July, 1978 (three lectures)
Invited Lecturer, XI Annual Polish Summer School, Mikolajki, Poland, September, 1978 (three lectures)
Distinguished Invited Guest Lecturer of the People's Republic of China, April-May, 1980
Invited Lecturer in select Winter Inst. on Nuclear Heavy Ion Dynamics, Weizmann Inst., Rehovot, Israel, Nov.-Dec., 1981
Joint U. of Maryland I.P.S.T./Physics Department Research Professor, 1981-83.
Invited Lecturer at the RCNP-Kikuchi Summer School of Physics, Kyoto, Japan, May, 1983
Guest Scientist of the C.N.R.S., France, May, 1984
Author of Citation Classic cited by *Current Contents*, Vol. 16, No. 31, August, 1985
Invited to Review *Fifty Years of Fission Theory* at Memorial Conf. on 50 Years with Nuclear Fission, April 1989
Semester Research Award from the Graduate School UMCP, Fall 1989
Invited Lecturer at the Romanian Summer School on Topics in Atomic and Nuclear Physics, Predeal, Romania, Aug. 1992
Representative of APS Forum on Int'l. Physics, and Outward Travel Awardee, Aug., 1992
Listed in: *American Men of Science*, *World Who's Who in Science*, *Leaders in American Science*, *Who's Who in the East*, *Who's Who in America*

B. Honored Positions in Profesional Organizations and Activities:

Visiting Scientist, Los Alamos Scientific Lab., 1966-; Oak Ridge Nat'l. Labs., 1965-; Lawrence Berkeley Lab., 1972-; Brookhaven Nat'l. Lab., 1975-; Gesellschaft f. Schwerionen (G.S.I.), Darmstadt, W. Germany, 1981, 1983, 1988; Inst. des Sciences Nucleaire (ISN) Grenoble, France, 1988; C.E.N. Bordeaux, France, 1989, 1991
Committee on the International Freedom of Scientists, 1979-82
Advisory Com. for the Summer Workshop on Time-Dependent Hartree-Fock Methods, C.E.N., Saclay, France, May, 1979
Advisory Com. for the Topical Research Inst. of Theoretical Physics, Univ. of Washington, Seattle, WA, Summer, 1979
Advisory Com. for the Int'l. Conference on Band Structure in Nuclear Dynamics, New Orleans, LA, February, 1980
Organizing Com. of the Winter Meeting on Nuclear Dynamics, Granlibakken, CA, February, 1982
Member, Physics Division External Review Com., Oak Ridge Nat'l. Labs., 1969-1970
Organizing Com. of the Third Winter Meeting on Nuclear Dynamics, Copper Mountain, CO, February 1984
Organizing Com., XIII Int'l. Conf. on Group Theoretical Methods in Physics, College Park, MD, May, 1984
Organizing Com. of the Fourth Winter Meeting on Nuclear Dynamics, Copper Mountain, CO, March, 1986
Organizing Com. for the First Int'l. Conf. on Phase Space, College Park, MD, May, 1986
Advisory Com. for "Fifty Years With Fission" Conf. Washington, DC, and Gaithersburg, MD, April 1989

Publication List

September 24, 2001

Papers published (or accepted for publication) in refereed journals

1. Physics research:

1. COLLECTIVE MOTION IN NUCLEI BY THE METHOD OF GENERATOR COORDINATES, J. J. Griffin and J. A. Wheeler, Phys. Rev. **108** (1957), 311-327.
2. 0^{16} BY THE METHOD OF GENERATOR COORDINATES, J. J. Griffin, Phys. Rev. **108** (1957), 328-335.
3. ENERGY DEPENDENCE OF FISSION FRAGMENT ANISOTROPY, J. J. Griffin, Phys. Rev. **116** (1959), 107-118.
4. MOMENTS OF INERTIA OF EVEN-EVEN RARE EARTH NUCLEI, M. Rich and J. J. Griffin, Phys. Rev. Lett. **3** (1959), 342-343.
5. MOMENTS OF INERTIA OF EVEN-EVEN RARE EARTH NUCLEI, J. J. Griffin and M. Rich, Phys. Rev. **118** (1960), 850-854.
6. FISSION FRAGMENT ANGULAR DISTRIBUTIONS BY EXACT POWER SERIES, J. J. Griffin, Phys. Rev. **127** (1962), 1248-1252.
7. STATISTICAL BEHAVIOR OF FINITE ISOLATED SUPERFLUIDS, M. Rich and J. J. Griffin, Phys. Rev. Lett. **11** (1963), 19-21.
8. NUCLEAR SUPERFLUIDITY AND STATISTICAL EFFECTS IN NUCLEAR FISSION, J. J. Griffin, Phys. Rev. **132** (1963), 2204-2211.
9. EVIDENCE FOR NUCLEAR PAIRING EFFECTS AT THE FISSION BARRIER, H. C. Britt, R. Stokes, W. R. Gibbs, and J. J. Griffin, Phys. Rev. Lett. **11** (1963), 343-346.
10. BETA DECAY AND DELAYED GAMMA FROM FISSION FRAGMENTS, J. J. Griffin, Phys. Rev. **134B** (1964), 817-823.
11. SPIN-ORBIT INTERACTION AND FISSION ANISOTROPY, W. R. Gibbs and J. J. Griffin, Phys. Rev. **137** (1965), B807-B808.
12. (d,p-f) ANGULAR CORRELATION STUDY OF FISSION-BARRIER TRANSITIONS STATES: ENERGY GAP OF A HIGHLY DEFORMED NUCLEUS, H. C. Britt, W. R. Gibbs, J. J. Griffin and R. H. Stokes, Phys. Rev. **139** (1965), B354-B361.
13. STATISTICAL MODEL OF INTERMEDIATE STRUCTURE, J. J. Griffin, Phys. Rev. Lett. **17** (1966), 478-480.
14. ENERGY DEPENDENCE OF AVERAGE DIRECT REACTION CROSS SECTIONS AND PARTIAL NUCLEAR LEVEL DENSITIES, J. J. Griffin, Phys. Lett. **24B** (1967), 5-7.
15. REFLECTION SYMMETRY AND FISSION MASS RATIOS, J. J. Griffin, Phys. Rev. Lett. **21** (1968), 826-828.
16. COLLECTIVE INERTIAE LEVEL CROSSINGS AND PAIRING J. J. Griffin, Nucl. Phys. **A170** (1971), 395-400.
17. PAULI BREAK-UP IN DEUTERON REACTIONS, B. L. Gambhir and J. J. Griffin, Phys. Rev. C **5** (1972), 1856-1860.
18. EVEN-ODD EFFECTS IN PRECOMPOUND EMISSION, E. V. Lee and J. J. Griffin, Phys. Rev. C **5** (1972), 1713-1717.
19. RIGOROUS SOLUTIONS FOR THREE-BODY REARRANGEMENT REACTIONS AND VALIDITY OF DWBA, B. L. Gambhir and J. J. Griffin, Phys. Rev. C **7** (1973), 1006-1009.
20. PAULI EXCLUSION EFFECTS IN REACTIONS INVOLVING MULTINUCLEON SYSTEMS, B. L. Gambhir and J. J. Griffin, Phys. Rev. C **7** (1973), 590-610.

21. QUANTIZED FRICTION AND THE CORRESPONDENCE PRINCIPLE: SINGLE PARTICLE WITH FRICTION, K.-K. Kan and J. J. Griffin, *Phys. Lett.* **50B** (1974), 241-243.
22. QUALITATIVE FEATURES OF PAULI BREAK-UP FROM THE CONFIGURATION SPACE VIEWPOINT, B. L. Gambhir and J. J. Griffin, *Phys. Lett.* **50B** (1974), 407-410.
23. SPECIAL EXAMPLES OF QUANTIZED FRICTION, J. D. Immele, K.-K. Kan and J. J. Griffin, *Nucl. Phys.* **A241** (1975), 47-60.
24. CONSTRAINTS IN QUANTUM MECHANICS VIA LAGRANGIANS, HAMILTONIANS AND CANONICAL EQUATIONS OF MOTION, P. Amiot and J. J. Griffin, *Ann. of Phys.* **95** (1975), 295-307.
25. COLLIDING HEAVY IONS: NUCLEI AS DYNAMICAL FLUIDS, J. J. Griffin and K.-K. Kan, *Rev. Mod. Phys.* **48** (1976) 467.
26. EVOLUTION OF A QUANTUM SYSTEM: LIFETIME OF A DETERMINANT, P. C. Lichtner and J. J. Griffin, *Phys. Rev. Lett.* **37** (1976) 1521-1524.
27. SINGLE PARTICLE SCHRÖDINGER FLUID I: FORMULATION, K.-K. Kan and J. J. Griffin, *Phys. Rev. C* **15** (1977), 1126.
28. NUCLEAR MATTER FLOW: FLUID DYNAMICS OF SMALL, FINITE SYSTEMS, J. J. Griffin, P. C. Lichtner and M. Dworzecka, *FIZIKA (Zagreb)* **9** (1977) 415-440.
29. INDEPENDENT PARTICLE SCHRÖDINGER FLUID: MOMENTS OF INERTIA, K.-K. Kan and J. J. Griffin, *Nucl. Phys.* **A301** (1978) 258.
30. THE SINGLE-PARTICLE SCHRÖDINGER FLUID: THE SHELL MODEL BASIS FOR NUCLEAR FLUID DYNAMICS, J. J. Griffin, K.-K. Kan, *Nucleonika (Warsaw)* **24** (1979) 309.
31. FERMIDYNAMICS AND COMMENSURABILITY; TDHF RESTRUCTURED INTO TD-S-HF, J. J. Griffin, P. C. Lichtner and M. Dworzecka, *Nucleonika (Warsaw)* **24** (1979) 343.
32. THE TIME-DEPENDENT PHASES OF TDHF SOLUTIONS AND THE TDHF VARIATIONAL PRINCIPLE, P. C. Lichtner, J. J. Griffin, H. Schultheis, R. Schultheis and A. B. Volkov, *Nucleonika (Warsaw)* **24** (1979) 359.
33. TDHF EIGENSTATES: GAUGE INVARIANT PERIODIC SOLUTIONS, K.-K. Kan, J. J. Griffin, P. C. Lichtner and M. Dworzecka, *Nucl. Phys.* **A332** (1979), 109.
34. TIME-DEPENDENT HARTREE-FOCK PHASE: UNIQUE IMPLICATION OF VARIATIONAL PRINCIPLE, P. C. Lichtner, J. J. Griffin, H. Schultheis, R. Schultheis and A. B. Volkov, *Phys. Lett.* **88B** (1979) 221.
35. VARIATIONAL DERIVATION OF A TIME-DEPENDENT HARTREE-FOCK HAMILTONIAN, P. C. Lichtner, J. J. Griffin, H. Schultheis, R. Schultheis and A. B. Volkov, *Phys. Rev. C* **20** (1979) 845.
36. TIME-DEPENDENT HARTREE-FOCK DYNAMICS AND PHASE TRANSITION IN LIPKIN-MESHKOV-GLICK MODEL, K.-K. Kan, P. C. Lichtner, M. Dworzecka and J. J. Griffin, *Phys. Rev. C* **21** (1980) 1098.
37. TAYLOR SERIES COMPARISON OF TDHF APPROXIMATION AND EXACT SCHRÖDINGER DYNAMICS, K.-K. Kan, P. C. Lichtner and J. J. Griffin, *Nucl. Phys.* **A334** (1980), 198.
38. THE TIME-DEPENDENT S-MATRIX HARTREE-FOCK THEORY OF COMPLEX REACTIONS, J. J. Griffin, P. C. Lichtner and M. Dworzecka, *Phys. Rev. C* **21** (1980) 1351.
39. TD-S-HF SINGLE DETERMINANTAL REACTION THEORY AND THE DESCRIPTION OF MANY-BODY PROCESSES, INCLUDING FISSION, with P. C. Lichtner, M. Dworzecka and K.-K. Kan, *Physics and Chemistry of Fission 1979 (IAEA, Vienna, 1980), Vol. II*, pp. 445-455.
40. THE SUPERFLUID WALL FORMULA AND NUCLEAR DISSIPATION, C. Yannouleas, M. Dworzecka and J. J. Griffin, *Nucl. Phys.* **A339** (1980) 219.
41. REACTION THEORY FOR A NONLINEAR DYNAMICS: THE S-MATRIX TIME-DEPENDENT HARTREE-FOCK THEORY, J. J. Griffin, M. Dworzecka, P. C. Lichtner and K.-K. Kan, *Phys. Lett.* **93B** (1980) 235.

42. MEAN FREE PATH OF NUCLEONS IN A FERMI GAS AT FINITE TEMPERATURE, M. T. Collins and J. J. Griffin, Nucl. Phys. **A348** (1980) 63-74.
43. COMMENT ON "BOHR-SOMMERFELD QUANTIZATION OF PSEUDOSPIN HAMILTONIAN, K.-K. Kan, J. J. Griffin and M. Dworzecka, Phys. Rev. Lett. **46** (1981) 1249.
44. TWO-DIMENSIONAL RANDOM WALK ON THE GROUND STATE ENERGY SURFACE: THE N-Z DISTRIBUTIONS FROM NUCLEAR HEAVY ION COLLISIONS, J. J. Griffin, Y. Boneh, K.-K. Kan and M. Dworzecka, Nucl. Phys. **A369** (1981) 181.
45. GENERALIZATION OF FLUIDIC ROTATIONAL CRANKING FORMULA TO INTERACTING SYSTEMS, K.-K. Kan and J. J. Griffin, Journal of Physics G: Nucl. Phys. **8** (1982) 511.
46. QUALITATIVE PROPERTIES OF THE DISCRETE RANDOM WALK EVOLUTION OF PROJECTILE-LIKE (N,Z)-VALUES ON THE DINUCLEAR LIQUID DROP SURFACE, J. J. Griffin, Y. Boneh, M. Dworzecka and K.-K. Kan, Nucl. Phys. **A382** (1982) 159.
47. NUCLEAR DISSIPATION AS DAMPING OF COLLECTIVE MOTION IN RPA, I: THE MICROSCOPIC MODEL, C. Yannouleas, M. Dworzecka and J. J. Griffin, Nucl. Phys. **A379** (1982) 256.
48. GAUGE INVARIANT PERIODIC SOLUTIONS OF THE EXACT TIME-DEPENDENT SCHRÖDINGER EQUATION, AND THEIR TIME AVERAGES, K.-K. Kan, J. J. Griffin, T. W. Atwater, and M. Dworzecka, Phys. Rev. **A27** (1983) 12.
49. MICROSCOPIC NUCLEAR DISSIPATION II: DAMPING OF COLLECTIVE STATES IN SUBSPACES WHICH INCLUDE 2P-2H STATES, C. Yannouleas, M. Dworzecka and J. J. Griffin, Nucl. Phys. **A397** (1983) 239.
50. RANDOM WALK vs. DISCRETE MASTER EQUATION FOR NUCLEAR HEAVY IONS: THEORETICAL AND EXPERIMENTAL DISTINCTIONS, B. Hiller, A. Blin, M. Dworzecka and J. J. Griffin, Nucl. Phys. **A424** (1984) 335.
51. OPEN QUESTIONS: THERMALIZATION AND FLOW, KINETIC OR POTENTIAL DRIVEN?, J. J. Griffin and W. Broniowski, Nucl. Phys. **A428** (1984) 145c.
52. PHYSICAL ASYMPTOTICITY IN NONLINEAR COLLISION THEORIES, J. J. Griffin and M. Dworzecka, Nucl. Phys. **A435** (1985) 205.
53. MACROSCOPIC IMPLICATIONS OF (N,Z) DISTRIBUTIONS FOR REACTION MECHANISMS IN ION-ION COLLISIONS, A. Gökmen, M. Dworzecka and J. J. Griffin, Nucl. Phys. **A440** (1985) 586.
54. QUANTAL ONE-BODY DISSIPATION: LIMITATIONS OF THE CLASSICAL WALL FORMULA, J. J. Griffin and M. Dworzecka, Phys. Lett. **156B** (1985) 139.
55. TIME-DEPENDENT EXCITATION OF THE LMG NUCLEUS IN SCHRÖDINGER AND TDSHF THEORIES, A. H. Blin, B. Hiller, M. Dworzecka and J. J. Griffin, Nucl. Phys. **A440** (1985) 62.
56. CLASSICAL WALL FORMULA AND QUANTAL ONE-BODY DISSIPATION, J. J. Griffin and M. Dworzecka, Nucl. Phys. **A455** (1986) 61.
57. THE QUANTAL PERMEATION CURRENT AND THE DISCREPANT INITIAL STAGE N- AND Z-DRIFTS IN NUCLEAR HEAVY ION COLLISIONS, J. J. Griffin, M. Dworzecka, and A. Lukasiak, Jour. de Physique, Colloq. C2, Supp. 6, **48** (1987) 259.
58. QUANTAL PERMEATION CURRENTS IN NUCLEAR HEAVY ION REACTIONS, J. J. Griffin, A. Lukasiak and M. Dworzecka, Zeit. f. Physik **A326** (1987) 51.
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4. CITATION CLASSIC: STATISTICAL MODEL OF INTERMEDIATE STRUCTURE, J. J. Griffin in *Current Contents* (Physical, Chemical and Earth Sciences) **25** (1985) No. 31, p. 18.
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12. COLLECTIVE KINETIC ENERGY AND THE PATH TO SCISSION, Gordon Research Conf. on Nuclear Chemistry (New London, NH, June, 1970).
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14. PRE-EQUILIBRIUM NUCLEAR REACTIONS--THE THEORETICAL DEVELOPMENTS, European Nuclear Physics Conf. (Villars, Switzerland, January, 1972).
15. PRE-EQUILIBRIUM NUCLEAR REACTIONS--COMPARISON WITH ACCUMULATING DATA, European Nuclear Physics Conf. (Villars, Switzerland, January, 1972).
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23. THEORETICAL COMMENSURABILITY AND THE TIME-DEPENDENT HARTREE-FOCK CALCULATIONS, 1976 Canadian Theoretical Physics Conf. (Kingston, Ontario, Canada, September, 1976).
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 - (b) TD-S-HF: RESTRUCTURING A COMMENSURABLE THEORY
 - (c) NUCLEAR FERMIDYNAMICS
29. NUCLEAR FERMIDYNAMICS AND TD-S-HF, *Third Int. Conf. on Cluster Aspects of Nuclear Structure and Nuclear Reactions* (Winnipeg, Manitoba, Canada, June 19-23, 1978), AIP Conf. Proc. No. 47 (American Inst. of Physics, NY, 1978), p. 114.
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 - (a) THE SINGLE PARTICLE SCHRÖDINGER FLUID: THE SHELL MODEL BASIS FOR NUCLEAR FLUID DYNAMICS
 - (b) FERMIDYNAMICS AND COMMENSURABILITY: TDHF RESTRUCTURES INTO TD-S-HF
 - (c) THE TIME-DEPENDENT PHASES OF TDHF SOLUTIONS AND THE TDHF VARIATIONAL PRINCIPLE
31. THREE LECTURES ON NUCLEAR FERMIDYNAMICS, at the XI Mazurian Summer School of Nuclear Physics, U. of Warsaw, Mikowajki, Poland (August-September, 1978), as follows:
 - (a) THE SINGLE PARTICLE SCHRÖDINGER FLUID: THE SHELL MODEL BASIS FOR NUCLEAR FLUID DYNAMICS
 - (b) FERMIDYNAMICS AND COMMENSURABILITY: TDHF RESTRUCTURED INTO TD-S-HF
 - (c) THE TIME-DEPENDENT PHASES OF TDHF SOLUTIONS AND THE TDHF VARIATIONAL PRINCIPLE
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38. TD-S-HF, A COMPLETE STRUCTURAL ANALOG OF THE SCHRÖDINGER REACTION THEORY, Topical Research Inst. on Nucleus-Nuclear Interactions (U. of Washington, Seattle, WA, July-August, 1979).
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 - (a) REACTION THEORY: T.D.-S-H. F. AND "CHANNEL EIGENSTATES"
 - (b) TIME-DEPENDENT PHASES FROM THE VARIATIONAL PRINCIPAL

- (c) BOUND STATES: GAUGES INVARIANT PERIODIC QUANTIZATION OF T.D.H.F., AND GENERALIZATION TO ARBITRARY SUBMANIFOLDS
- (d) EXACT SCHRÖDINGER THEORY AND GAUGE INVARIANT PERIODIC QUANTIZATION
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 52. EXACT QUANTAL MODEL OF DINUCLEAR FLOW: IMPORTANCE OF KINETIC PRESSURE, III Workshop on Nuclear Dynamics (Copper Mountain, CO, March, 1984).
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 56. QUANTAL DISSIPATION AND THE CLASSICAL WALL FORMULA, at the Summer Institute in Theoretical Physics, Kingston, Canada, July, 1984).
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 58. THE HIDDEN DYNAMICS OF HEAVY ION EVOLUTION: IS IT MORE INTERESTING THAN OUR PHENOMENOLOGIES ASSUME?, XIIIth Int. Workshop on Gross Properties (Hirschegg Austria, Jan. 1985).
 59. QUANTAL ONE-BODY DISSIPATION AND THE WALL FORMULA, 4th Int. Conf. on Nuclear Reaction Mechanisms (Varenna, Italy, June 1985).
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70. SPONTANEOUS CREATION OF QUADRONIUM IN A STRONG COULOMB FIELD, *Workshop on Microscopic Models in Nuclear Structure Physics*, Oak Ridge, TN, Oct. 1988, ed. by M. W. Guidry et al. (World Scientific, Singapore, 1989), p. 409.
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77. SHARP (e^+e^-) PAIRS FROM (β^+ +ATOM) AND FROM HEAVY ION COLLISIONS, J. J. Griffin, *Proc. Tenth Winter Workshop on Nuclear Dynamics*, Snowbird, UT, Jan. 1994, ed. W. Bauer (World Scientific, London, 1994).
78. THE DOPPLER PARADIGM AND THE APEX-EPOS-ORANGE QUANDARY, J. J. Griffin, XXIV Masurian School of Physics, Piaski, Poland, Aug. 1995, in *Acta Physica Polonica* B27 (1996) 2087.
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80. THE SHARP LEPTON QUANDARY: REASONABLE CAUTIONS, J. J. Griffin, *Proc. 12th Winter Workshop on Nuclear Dynamics*, Snowbird, UT, Feb. 1996, eds. W. Bauer and G. D. Westfall (Plenum Pub., 1996), p. 317.

81. APEX: WEAK EVIDENCE FOR 800 keV SHARP Pairs, J. J. Griffin, *Proc. 13th Winter Workshop on Nuclear Dynamics*, Marathon, FL, Feb. 1997, eds. W. Bauer and A. Mignerey (Plenum Press, New York, 1997), p. 137.
82. THE APEX/EPOS QUANDARY: THE WAY OUT VIA LOSS ENERGY STUDIES, J. J. Griffin, *Proc. 8th Intl. Conf. on Nuclear Reaction Mechanisms*, Varenna, Italy, June 1997, ed. E. Gadioli (U. of Milano, Oct. 1997), RSeEP Suppl. No. 111, p. 493.
83. AN ALTERNATIVE WINDOW UPON THE GSI SHARP LEPTON PROBLEM, J. J. Griffin, *Proc. Intl. Conf. in Memory of C. S. Wu*, Nanjing, PRC, Aug. 1997, Fan Wang (World Scientific Press, New Jersey), p. xxx.
84. SHARP (e^+e^-) PAIRS: ALTERNATIVE PATHS TO BREAK THE HEAVY ION IMPASSE, J. J. Griffin, *Proc. 14th Winter Workshop on Nuclear Dynamics*, Snowbird, Utah, Feb. 1998, eds. W. Bauer and H. G. Ritter (Plenum Press, New York, 1998), p. xxx.

Colloquia, seminars, and special lectures:

[Note: Previous to 1/1/77, the author kept no systematic record of his colloquia and seminar appearances. This list has therefore been reconstructed back to August, 1975 and is probably fairly complete over that period. The earlier record would be more difficult to obtain.]

<u>Title</u>	<u>Place(s)</u>	<u>Date(s)</u>
"Nuclear Heavy Ion Collisions: Hydrodynamics?"	Brookhaven Nat. Lab.	8/8/75
	Inst. f. Physik, U. of Mainz, W. Germany	10/29/75
	Inst. f. Theor. Physik, U. of Giessen, W. Germany	11/7/75
	Inst. Kernphysik, Jülich, W. Germany	11/17/75
	Lab. Nucleaire, Orsay, France	11/21/75
	Inst. f. Physique, Bruyere la Chatel, France	12/1/75
	Inst. f. Physik, U. of Heidelberg, W. Germany	12/15/75
	Inst. f. Kernphysik, Tech. U. Munich, W. Germany	1/9/76
During the course of time, this lecture changed little by little, and its title changed accordingly. Finally by Fall 1976, it had become: "Nuclear Dynamics and Theoretical Commensurability".	Inst. f. Theor. Physik, U. of Tübingen, W. Germany	2/4/76
	Inst. f. Kernphysik, Karlova U., Prague, Yugoslavia	5/5/76
	Inst. f. Theor. Physik, U. Karlova, Prague, Yugoslavia	5/26/75
	Physics Dept., Rensselaer Polytech. Inst.	10/6/76
	Dept. of Physics & Astronomy, U. of Maryland	11/16/76
	Physics Dept., McMaster U., Canada	12/1/76
	Physics Dept., Rutgers U.	12/15/76
	"Vibrational Instability in Droplet Collisions: A Test of Nuclear Hydrodynamics?"	Inst. f. Kernphysik, T.H. Darmstadt W. Germany	10/2/75
Hahn-Meitner Inst., Berlin, W. Germany		10/22/75
Inst. f. Theor. Physik, U. of Giessen, W. Germany		11/12/75
Lab. Nucleaire, Saclay, France		11/24/75
Inst. f. Theor. Physik, U. of Munich, W. Germany		1/8/76
XIV Int. Conf. on Nuclear Physics, Bormio, Italy		1/25/76
Max-Planck Inst., Heidelberg, W. Germany		2/11/76
Inst. f. Theor. Physik, U. of Mainz, W. Germany		5/7/76
"Vibrational Instability in Droplet Collisions: A Test of Nuclear Hydrodynamics?"	Nuclear Physics Inst., Rez., Czechoslovakia	5/27/76
	Dept. of Physics & Astronomy, U. of Maryland	9/8/76
"Open Questions on Numerical Time-Dependent Hartree-Fock Models"	Vth Int. Conf. on Gross Properties of Nuclei, Hirschegg, Austria	1/15/76
	Canadian Theor. Phys. Conf., Hamilton, Ontario, Canada	9/3/76
	Dept. of Physics & Astronomy, U. of Maryland	11/24/76
"The Single-Particle Schrödinger Fluid"	Lab. Nucleaire, Orsay, France	11/26/75
	Hahn-Meitner Inst., Berlin, W. Germany	5/12/76
"Collective Motion by Constraints in LaGrangians and Hamiltonians"	Lab. Nucleaire, Saclay, France	11/28/75
"Nuclear Heavy Ion Dynamics"	Los Alamos Scientific Labs.	2/14/77
	U. of Texas, Austin	2/17/77
"Nuclear Heavy Ion Physics" "Science in the Shadows"	5th Jubilee Meeting of Moscow,	4/19/77
	Dept. of Physics & Astronomy, U. of Maryland	5/13/77
	Physics Dept., U. of Washington	5/21/77
	Lawrence Berkeley Lab., U. of California	5/25/77
	Sem. on Collective Behaviour	

<u>Title</u>	<u>Place(s)</u>	<u>Date(s)</u>
"Nuclear Heavy Ion Collisions: Fermi Dynamics"	Physics Dept., U. of Washington	5/19/77
	Lawrence Berkeley Lab., U. of California	5/23/77
	Bartol Research Foundation, U. of Delaware	11/30/77
"Open Questions in TD-S-HF"	Lawrence Livermore Lab., U. of California	5/24/77
"Nuclear Fermi Dynamics: Physical Content vs. Theoretical Approach"	Fall Creek Falls Conf. on Heavy Ion Physics, Fall Creek Falls, TN	6/13/77
"Nuclear Matter Flow, Fluid Dynamics of Small, Finite Systems"	Int. Symp. on Nuclear Collisions and Their Microscopic Description, Bled, Yugoslavia	9/28/77
"Vibrational Instability in Droplet Collisions: A Test of Nuclear Hydrodynamics"	Short presentation at Int. Symp. on Nuclear Collisions and Their Microscopic Description, Bled, Yugoslavia	9/29/77
"Changing Careers in Physics"	Dept. of Physics & Astronomy, U. of Maryland	11/6/77
"Survey of Theoretical Models for Close Heavy Ion Collisions"	American Physical Society, Rochester, NY	10/29/77
Three Distinguished Lectures-Colloquia on Nuclear Heavy Ion Physics:	Physics Dept., U. of Toronto, Canada	
(a) "The Single Particle Schrödinger Fluid"	.....	3/20/78
(b) "The TD-S-HF: Restruc- turing a Commensurable Theory"	.....	3/22/78
(c) "Nuclear Fermi Dynamics"	.....	3/23/78
"Nuclear Fermi Dynamics"	National Bureau of Standards	2/15/78
	Drexel Inst. of Technology	3/30/78
	Physics Dept., U. of Indiana	4/5/78
"Nuclear Heavy Ions as a Statistical Process"	I.P.S.T., U. of Maryland	5/9/78
Lecture and Panel Discussion: "Nuclear Technology: Promises and Risks" (to Int'l. Society Newspaper Editors)	Physics Dept., Northern Illinois U.	6/12/78
"Nuclear Fermidynamics"	III Int. Conf. on Clustering Phenomena in Nuclei, Winnipeg, Manitoba, Canada	6/19-23/78

<u>Title</u>	<u>Place(s)</u>	<u>Date(s)</u>
Three Lectures on Nuclear Heavy Ion Physics:	0.A.S. Summer School on Nuclear Physics, Mayaguez, Puerto Rico	7/17-8/5/78
(I) "The Single-Particle Schrödinger Fluid: The Shell Model Basis for Nuclear Fluid Dynamics"	XI Annual Polish Summer School, Mikolajki, Poland	8/28-9/10/78
(II) "Fermidynamics and Commensurability: TDHF Restructured into TD-S-HF"		
(III) "The Time-Dependent Phase of TDHF Solutions and the TDHF Variational Principle"		
"Nuclear Matter Flow: Why of Interest to Statistical Physics?"	Physics Dept., Catholic U., Washington, DC	10/26/78
"The Time-Dependent S-Matrix Reformulation of Single Determinantal Scattering Theory"	VII Annual Workshop on Gross Properties of Nuclei, Hirschegg, Austria	1/18/79
"Nuclear Fermidynamics: The Physics of Nuclear Matter Flow"	Physics Dept., Brooklyn College, Brooklyn, NY	2/14/79
"Microscopic Origins of Dissipation and Irreversibility in Nuclear Phenomena"	U. of Maryland Cyclotron Research Retreat, Fort Deposit, MD	8/2/79
"Two Grand Ideas for the Next Fifty Years"	Conf. Gen. Int. Talk, VIIIth Ann. Wkshp. on Gross Properties of Nuclei, Hirschegg, Austria	1/18/80
"Nuclear Heavy Ion Physics and Non-Linear Quantal Reaction Theory"	Physics Dept., College of William & Mary, Williamsburg, VA	1/25/80
"TD-S-HF: A Quantal Theory for a Non-Linear Dynamics"	Brookhaven Nat'l. Lab., Brookhaven, NY	2/8/80
Seven Lectures as Distinguished Guest	Inst. of Atomic Energy of Academia Sinica, Peking, P.R.China	
"Pre-Equilibrium Reactions"	.....	5/3/80
"T.D.-S-H.F.: Reaction Theory for Non-Linear Dynamics"	.....	5/5/80
"Fermidynamics of Nuclear Heavy Ion Collisions"	.....	5/7/80
"Single Particle Schrödinger Fluid"	.....	5/8/80
"Time Dependent-S- Matrix Hartree-Fock Theory"	Inst. of Atomic Energy of Academia Sinica, Peking, P.R.China	5/9/80

<u>Title</u>	<u>Place(s)</u>	<u>Date(s)</u>
"T.D.-S-H.F.: Reaction Theory for Non-Linear Dynamics"	Fudan University Shanghai, P.R.China	5/13/80
	Inst. of Atomic Energy Shanghai, P.R.China	5/14/80
	University of Hong Kong	5/23/80
	Brookhaven Nat'l. Labs	10/3/80
	Oak Ridge Nat'l. Laboratory	10/24/80
"Energy Surface Domination of (N,Z) Distributions from Deep Inelastic Collisions"	Gross Properties of Nuclei IV, Hirschegg, Austria	1/23/81
	G.S.I., Darmstadt, W. Germany	2/5/81
	Hahn-Meitner Inst., W. Berlin, W. Germany	2/9/81
	U. of Manchester, England	2/11/81
	Daresbury Lab., England	2/12/81
	U. of Texas, Austin, TX	3/21/81
	Texas A&M U., College Station, TX	3/23/81
	Los Alamos Sci. Lab., NM	3/27/81
U. of Pennsylvania, Philadelphia, PA	4/8/81	
U. of Notre Dame, IN	4/14/81	
"The Flow of Nuclear Matter through the Heavy Ion Neck: (N,Z) Evolution on the Dinuclear Liquid Drop Surface"	Int. Symp. on Clustering Phenomena in Nuclei, Tübingen, W. Germany	9/11/81
"Structuring a Reaction Theory for TDHF: Channel States and Time Averaging"	The Niels-Bohr Inst. for Theoretical Physics, Copenhagen, Denmark	9/14/81
"Bound States: Gauge Invariant Periodic Quantization of TDHF, and Generalization to Arbitrary Submanifolds"	The Weizmann Inst. of Science	11/29/81
	First Winter Inst., Rehovot, Israel	
"Exact Schrödinger Theory and Gauge Invariant Periodic Quantization"	.....	11/29/81
"Reaction Theory:T.D.-S-H.F. and 'Channel Eigenstates'"	.....	11/29/81
"Time-Dependent Phases from the Variational Principal"	.....	11/19/81
"Structuring a Reaction Theory for TDHF: Channel States and Time Averaging"	The Hebrew University, Jersusalem, Israel	12/15/81
"Implications of Diverse Mechanisms for Dinuclear (N,Z) Evolution"	Inst. for Theoretical Physics, T.-H. Darmstadt, W. Germany	1/31/83
"Nonlinear Many-Body Reaction Theories from Nuclear Mean Field Approximations"	Research Center for Nuclear Physics' Summer School, Kyoto, Japan	5/24,26/83

<u>Title</u>	<u>Place(s)</u>	<u>Date(s)</u>
"Physical Asymptoticity in Nonlinear Collisions Theories"	Inst. of Nuclear Studies, U. of Tokyo, Tokyo, Japan	5/30/83
"Macroscopic Implications of Diverse Reaction Mechanisms in Heavy Ion Collisions"	Inst. for Physics and Chemistry Research, Wako, Tokyo, Japan	5/30/83
"Quantal Dissipation and the Swiatecki Wall Formula"	I.S.N. Laboratories, Grenoble, France	6/14/84
"Kinetic Pressure Dominance of Early (N,Z) Transfer in Dinuclei"	Hahn-Meitner Inst., W. Berlin, Germany	6/20/84
"Quantal Dissipation and the Swiatecki Wall Formula"	Hahn-Meitner Inst. W. Berlin, Germany	6/21/84
"Quantal Dissipation: Limitations of the Wall Formula"	Inst. of Physics, Krakow U., Krakow, Poland	6/22/84
"Quantal Dissipation and the Classical Wall Formula"	Queen's Univ., Summer Inst. of Theoretical Physics, Kingston, Canada	7/18/84
	Univ. of Milano, Italy	6/27/85
"Nuclear Dissipation: Classical vs. Quantal"	Lewes Center for Physics, Lewes, Delaware	7/25/85
"Quantal Permeation Currents in Nuclear Heavy Ion Reactions"	Inst. of Modern Physics, U. of Lanzhou, Lanzhou, P.R.China	6/3/86
"Dissipation in Nuclear Many-Body Systems from the Microscopic Quantal Viewpoint"	College of William & Mary, Williamsburg, VA	10/17/86
	C.E.N. Bordeaux, France	3/11/88
"Quadronium: Rosetta Stone for the (e^+e^-) Puzzle"	I.S.N., Grenoble, France	7/5/88
	C.E.N., Saclay, France	7/6/88
	KVI, Groningen, The Netherlands	7/8/88
	Niels Bohr Inst. Copenhagen, Denmark	7/11/88
	T.U. Muncheon, and the U. of Muncheon, W. Germany	7/15/88
	Hahn-Meitner Inst. Berlin, W. Germany	7/18/88
	G.S.I, Darmstadt, W. Germany	7/20/88
	Nuclear Theory Seminar	9/21/88
	U. of Maryland, College Park, MD	
	The Univ. of Maryland Physics Colloquium, College Park, MD	2/21/89
	Johns Hopkins U. Applied Physics Lab, Laurel, MD	5/19/89
"50 Years of Fission Theory"	Nuclear Engineering Dept., Univ. of Maryland, College Park, MD	4/24/90
"Quantitative Quadronium"	The Hahn-Meitner Inst., Berlin, W. Germany	1/11/90

<u>Title</u>	<u>Place(s)</u>	<u>Date(s)</u>
Phenomenology of the (e^+e^-) Puzzle and Prediction of New Sharp Annihilative Positrons"	Drexel U., Philadelphia, PA Louisiana State U., Baton Rouge	9/20/90 11/1/90
"Quadronium: Unravelling the (e^+e^-) Puzzle"	The Max-Planck Inst., Heidelberg, Germany The GSI Heavy Ion Labs, Darmstadt, Germany The KVI Nuclear Labs, Groningen, The Netherlands The Univ. of Washington, Physics Dept., Seattle, WA	7/16/91 7/18/91 7/24/91 8/18/92
"The Quadronium Phenomen- ology of the e^+e^- Puzzle"	Three lecture hours at the Predeal, Romania Summer School on "Topics in Atomic and Nuclear Physics"	9/2/92
"The Quadronium Scenario and the Sharp Leptons from (β^+ +Atom)	Inst. of Nuclear Theory, Univ. of Washington Seattle, WA	11/23/93
"Positron+Atom: New Window on (e^+e^-) Puzzle	Inst. Laue-Langevin, Grenoble, France Centre Etudes Nucl. Bordeaux-Gradignan, France	6/7/94 6/10/94
"APEX vs. EPOS: No Real Conflict"	Lawrence Livermore Labs, Livermore, CA	7/26/96

Contributed papers:

1. THE VARIATIONAL APPROACH TO COLLECTIVE NUCLEAR BEHAVIOR, *Phys. Rev.* **99** (1955), 648.
2. THE ENERGY DEPENDENCE OF FISSION FRAGMENT ANISOTROPY, *Proc. Int. Conf. on Nuclear Structure* (Paris, 1958), p. 749.
3. ENERGY DEPENDENCE OF FISSION ANISOTROPY, *APS Bull.* **3** (1958), 337.
4. MOMENTS OF INERTIA OF EVEN-EVEN NUCLEI IN THE RARE EARTH REGION, with M. Rich, *APS Bull.* **4** (1959), 255.
5. FRAGMENT ANISOTROPY FOR FISSION INDUCED BY THE (d,p) REACTION, with H. C. Britt, W. R. Gibbs and R. H. Stokes, *APS Bull.* **8** (1963), 525.
6. LEVEL STRUCTURE AT THE FISSION BARRIER, with M. Rich, *APS Bull.* **8** (1963), 526.
7. FOURTH ORDER CORRECTIONS TO THE ROTATIONAL SPECTRA OF EVEN-EVEN RARE EARTH NUCLEI, with M. Rich. *APS Bull.* **11** (1966), 103.
8. IMAGINARY POTENTIAL FOR COUPLED CHANNEL CALCULATIONS, with B. Kohr, *APS Bull.* **12** (1967), 1172.
9. "WALK-RUN" FISSION AND MASS ASYMMETRY, *Nuclear Structure* (Dubna, USSR, 1968) (IAEA Vienna, 1968), p. 459.
10. PAULI BREAK-UP IN DEUTERON REACTIONS, with B. Gambhir, *APS Bull.* **15** (1970), 504.
11. INERTIAL DISTORTION OF FISSION TRAJECTORIES, with P. Amiot, *APS Bull.* **15** (1970), 646.
12. PAULI BREAK-UP OF DEUTERONS ON 0^{16} : EXPLICIT RESULTS FOR A SIMPLE MODEL, with B. Gambhir, *APS Bull.* **16** (1971), 580.
13. ADIABATICITY OF POTENTIAL BARRIER PENETRATION, with K. Kan, *APS Bull.* **17** (1972), 581.
14. COLLECTIVE MOTION AND KINETIC CONSTRAINT, with P. Amiot, *APS Bull.* **17** (1972), 507.
15. COMPRESSIBILITY OF SINGLE PARTICLE DENSITY DISTRIBUTION AND THE CRANKING FORMULA, with K. Kan, *APS Bull.* **18** (1973), 647.
16. COMPRESSIBILITY IN NUCLEAR COLLECTIVE DYNAMICS, *Proc. III Symp. on Chemistry and Physics of Fission* (Rochester, NY, 1973) (IAEA, Vienna, 1974), p. 533.
17. A HEURISTIC NON-LINEAR SCHRÖDINGER EQUATION FOR FRICTION, AND AN EXACT CLOSED-FORM SOLUTION, with K.-K. Kan, *Proc. Int. Conf. on Reactions between Complex Nuclei* (Nashville, TN, 1974), ed. by R. Robinson, et al. (North-Holland, Amsterdam, 1974), Vol. I, p. 127.
18. A RESOLUTION OF THE ROTATIONAL-IRROTATIONAL FLOW PARADOX FOR NUCLEI, with K. Kan, *APS Bull.* **19** (1974), 526.
19. SPECIAL EXAMPLES OF QUANTIZED FRICTION, with J. Immele, T. Wells and K. Kan, *APS Bull.* **19** (1974), 527.
20. QUANTIZED FRICTION: HEURISTIC FORMULATION AND EXACT SOLUTION, with K. Kan, *APS Bull.* **19** (1974), 527.
21. DUAL VELOCITY FIELDS AND THE ADIABATIC NUCLEAR FLUID, with K.-K. Kan, *APS Bull.* **19** (1974), 996.
22. DENSITY AS $A \rightarrow \infty$: THE SEPARATION OF EDGE AND CENTRAL RIPPLES, AND THE APPROACH TO NUCLEAR MATTER, with T. B. Wells and M. Mustafa, *APS Bull.* **19** (1974), 1017.
23. PROPOSED MEASURE OF DEVIATIONS FROM IDEAL FLUID FLOW OF NUCLEAR SINGLE PARTICLE DENSITY, with K.-K. Kan, *APS Bull.* **20** (1975), 581.
24. VIBRATIONAL INSTABILITY IN DROPLETS (AND NUCLEI), with C. Y. Wong, *APS Bull.* **20** (1975), 1158.
25. "INSTANT DISSIPATION" IN HEAVY ION COLLISIONS, with D. H. Gross, *APS Bull.* **21** (1976), 973.

26. RIGID BODY MOMENTS AND MANY INDEPENDENT PARTICLE SYSTEMS, with K.-K. Kan, APS Bull. **22** (1977), 529.
27. THE CONSTANT- \hbar RESOLUTION OF TIME-DEPENDENT HARTREE-FOCK PHASE AMBIGUITY, with P. C. Lichtner, H. Schultheis, R. Schultheis and A. B. Volkov, APS Bull. **23** (1978), 537.
28. TIME-DEPENDENT SCHRÖDINGER CALCULATION OF INDEPENDENT PARTICLE MATTER FLOW IN A ONE-DIMENSIONAL BOX, with C. P. Yannouleas, APS Bull. **23** (1978), 537.
29. THE TIME-DEPENDENT S-MATRIX HARTREE-FOCK THEORY OF REACTIONS, with P. C. Lichtner and M. Dworzecka, APS Bull. **23** (1978).
30. LIMITATION OF DISPERSION OF MASS TRANSFER IN HEAVY ION REACTIONS WITHIN THE TIME-DEPENDENT HARTREE-FOCK APPROXIMATION, with P. C. Lichtner, M. Dworzecka and K.-K. Kan, APS Bull. **24** (1979), 592.
31. TAYLOR SERIES COMPARISON OF TDHF APPROXIMATION AND EXACT SCHRÖDINGER DYNAMICS, with K.-K. Kan and P. C. Lichtner, APS Bull. **24** (1979), 626.
32. PERIODIC SOLUTIONS OF THE TDHF EQUATIONS AS ANALOGS OF STATIONARY SCHRÖDINGER EIGENSTATES, with K.-K. Kan, P. C. Lichtner and M. Dworzecka, APS Bull. **24** (1979), 627.
33. THE COMPLEX PHASE OF THE TDHF SOLUTION AS IMPLIED BY THE VARIATIONAL PRINCIPLE, with A. Volkov, P. C. Lichtner, H. Schultheis and R. Schultheis, APS Bull. **24** (1979), 627.
34. SIMPLEST APPLICATION OF TD-S-HF, with M. Dworzecka, P. C. Lichtner and K.-K. Kan, APS Bull. **24** (1979), 627.
35. TDHF DYNAMICS AND PHASE TRANSITION IN LIPKIN-MESHKOV-GLICK MODEL, with P. Lichtner, M. Dworzecka and K.-K. Kan, APS Bull. **24** (1979), 847.
36. EXPLICIT AGREEMENT OF FLUIDIC CRANKING FORMULA WITH IRROTATIONAL STRONG PAIRING LIMIT, with K.-K. Kan, APS Bull. **24** (1979), 848.
37. GENERALIZATION OF TDHF PROPERTIES TO LESS RESTRICTIVE VARIATIONAL THEORIES, with M. Dworzecka and K.-K. Kan, APS Bull. **24** (1979), 848.
38. MEAN FREE PATH OF NUCLEONS IN FINITE TEMPERATURE FERMI GAS, with M. Collins, APS Bull. **24** (1979), 848.
39. GIANT COLLECTIVE VIBRATIONS AS TDHF EIGENSOLUTIONS, with M. Dworzecka and K.-K. Kan, Int. Symp. on Continuum Spectra of Heavy Ion Reactions (San Antonio, TX, December, 1979).
40. REACTION THEORY FOR A NON-LINEAR DYNAMICS: THE S-MATRIX TIME-DEPENDENT HARTREE-FOCK THEORY, with M. Dworzecka, P. Lichtner and K.-K. Kan, VIIIth Annual Workshop on Gross Properties of Nuclei (Hirschegg, Austria, January, 1980).
41. GIANT COLLECTIVE VIBRATIONS AS TDHF EIGENSOLUTIONS, with M. Dworzecka and K.-K. Kan, VIIIth Annual Workshop on Gross Properties of Nuclei (Hirschegg, Austria, January, 1980).
42. GAUGE INVARIANT PERIODICITY-A GENERAL METHOD FOR QUANTIZING NON-LINEAR APPROXIMATE THEORIES, with K.-K. Kan and M. Dworzecka, VIIIth Annual Workshop on Gross Properties of Nuclei (Hirschegg, Austria, January, 1980).
43. GAUGE INVARIANT TDHF EIGENSTATES FOR COLLECTIVE MODES, with M. Dworzecka and K.-K. Kan, APS Bull. **25** (1980), 574.
44. GAUGE INVARIANT PERIODIC QUANTIZATION METHOD, K.-K. Kan, J. J. Griffin and M. Dworzecka, Int. Conf. on Nuclear Physics, Berkeley, California (1980).
45. T.D.-S-H.F. REACTION THEORY AND THE LMG TWO LEVEL MODEL, F. J. Pineda, M. Dworzecka, J. J. Griffin, and K.-K. Kan, Bull. A.P.S. **26** (1981) 592.
46. EARLY ENERGY LOSS MECHANISM IN DEEP INELASTIC COLLISIONS, J. J. Griffin, K.-K. Kan, M. Dworzecka and Y. Boneh, Bull. A.P.S. **26** (1981) 592.

47. THE DEEP INELASTIC COLLISION AS A RANDOM WALK ON THE N-Z SURFACE, Bull. A.P.S. **26** (1981) 592.
48. TIME AVERAGED INTERPRETATION OF GAUGE INVARIANT PERIODIC TDHF SOLUTIONS, T. Atwater, K.-K. Kan, J. J. Griffin and M. Dworzecka, Bull. A.P.S. **26** (1981) 609.
49. MICROSCOPIC DERIVATION OF THE WALL FORMULA, C. Yannouleas, M. Dworzecka and J. J. Griffin, Bull. A.P.S. **26** (1981) 592.
50. GIANT MONOPOLE AND QUADRUPOLE VIBRATIONS AS TDHF EIGENSOLUTIONS, M. Dworzecka, Bull. A.P.S. **26** (1981) 1145.
51. GIANT MONOPOLE AND QUADRUPOLE VIBRATIONS OF ^{16}O and ^{40}Ca AS TDHF EIGEN-SOLUTIONS, M. Dworzecka, J. J. Griffin and J. Blocki, Bull. A.P.S. **26** (1981) 1145.
52. MICROSCOPIC ONE-BODY DISSIPATION MECHANISM AS A DAMPING OF COLLECTIVE MOTION IN R.P.A., M. Dworzecka, C. Yannouleas and J. J. Griffin, *Proc. Xth Int'l Workshop on Gross Properties* (Hirschegg, Austria, Jan. 1982) (Inst. f. Theor. Kernphysik, T. H. Darmstadt, W. Germany.)
53. EVOLUTIONARY PRE-EQUILIBRIUM LEVEL DENSITY IN DISCRETE (N-Z) RANDOM WALK, A. Gökmen, M. Dworzecka, J. J. Griffin and Y. Boneh, supplementary session, Washington, D.C. APS Meeting, April, 1982.
54. TWO-DIMENSIONAL RANDOM WALKS ON A FINITE INHOMOGENEOUS LATTICE AND ITS CONNECTION TO DIC, B. Hiller, M. Dworzecka and J. J. Griffin, Bull. A.P.S. **27** (1982) 550.
55. GAUGE INVARIANT PERIODIC SOLUTIONS OF THE EXACT SCHRÖDINGER EQUATION, AND TIME AVERAGING, J. J. Griffin, K.-K. Kan, T. W. Atwater and M. Dworzecka, Bull. A.P.S. **27** (1982) 575.
56. NUCLEAR DISSIPATION AS DAMPING ON THE ONE-PHONON COLLECTIVE STATE IN THE SECOND RPA, C. Yannouleas, M. Dworzecka and J. J. Griffin, Bull. A.P.S. **27** (1982), 575.
57. NONLINEAR QUANTAL FRICTION FROM A MICROSCOPIC MODEL, M. Dworzecka, C. Yannouleas and J. J. Griffin, Bull. A.P.S. **27** (1982) 576.
58. DERIVATION OF NONLINEAR QUANTAL FRICTION FROM A MICROSCOPIC MODEL OF ONE-BODY DISSIPATION, C. Yannouleas, M. Dworzecka and J. J. Griffin, *Proc. XI Int. Workshop on Gross Properties* (Hirschegg, Austria, Austria, Jan. 1983) (Inst. f. Kernphysik, T. H. Darmstadt, W. Germany).
59. MACROSCOPIC IMPLICATIONS OF DIVERSE MECHANISMS FOR DINUCLEAR (N-Z) EVOLUTION, A. Gokmen, M. Dworzecka and J. J. Griffin, *Proc. XI Int. Workshop on Gross Properties of Nuclei* (Hirschegg, Austria, Jan. 1983) (Inst. f. Kernphysik, T. H. Darmstadt, W. Germany).
60. SCATTERING OF THE LMG NUCLEUS IN SCHRÖDINGER AND TD-S-HF THEORIES, A. H. Blin, B. Hiller, J. J. Griffin and M. Dworzecka, Bull. A.P.S. **28** (1983) 744.
61. DISCRETE RANDOM WALK vs. THE CONTINUOUS TIME, DISCRETE LATTICE INDEX MASTER EQUATION IN THE CALCULATION OF THE MOMENTS OF NUCLEON DISTRIBUTIONS, B. Hiller, A. Blin, M. Dworzecka and J. J. Griffin, Bull. A.P.S. **28** (1983) 744.
62. THE DISCRETE MASTER EQUATIONS vs. THE CONTINUOUS MASTER EQUATION IN THE CALCULATION OF THE MOMENTS OF THE NUCLEON DISTRIBUTIONS, M. Dworzecka, B. Hiller, A. Blin and J. J. Griffin, Bull. A.P.S. **28** (1983) 744.
63. PHYSICAL ASYMPTOTICITY IN NONLINEAR QUANTUM REACTION THEORIES, J. J. Griffin and M. Dworzecka, Bull. A.P.S. **28** (1983) 744.
64. MACROSCOPIC vs. MICROSCOPIC FEATURES OF DINUCLEAR (N-Z) EVOLUTION, A. Gökmen, M. Dworzecka and J. J. Griffin, Bull. A.P.S. **28** (1983) 744.
65. WALL FORMULA AS SPECIAL CASE OF RPA DISSIPATION, C. Yannouleas, M. Dworzecka and J. J. Griffin, Bull. A.P.S. **28** (1983) 668.

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67. SPREADING WIDTHS BY EXTENDED TDHF AND RPA, S. Ayik, M. Dworzecka and J. J. Griffin, *Bull. A.P.S.* **29** (1984) 695.
68. MACROSCOPIC IMPLICATIONS OF DIVERSE TRANSFER MECHANISMS IN HEAVY ION COLLISIONS, M. Dworzecka, A. Gökmen and J. J. Griffin, Winter Workshop on Nuclear Dynamics III (Copper Mountain, CO, 1984).
69. NUCLEON EXCHANGE STUDIES WITH BEAMS FAR FROM STABILITY, with A. C. Mignerey and H. Breuer, *Prospects for Research with Radioactive Beams from Heavy Ion Accelerators* (LBL #18187, Lawrence Berkeley Labs, Berkeley, California (1984), p. 80.
70. KINETIC EQUILIBRIUM CHANNELLED DRIFT AGAINST THE TOTAL ENERGY GRADIENTS, J. J. Griffin and W. Broniowski, *Bull. A.P.S.* **30** (1985) 705.
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