CURRICULUM VITAE

Wolfgang Peter S c h l e i c h

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Date of birth:	February 23, 1957	
Place of birth:	Mühldorf/Inn, Germany	

Education

1989 Dr. rer. nat. habil. (Ludwig-Maximilians-Universität München)
Title of the Habilitation thesis:
Interference in Phase Space

1984 Dr. rer. nat. (Ludwig-Maximilians-Universität München)
Title of the Ph.D. thesis:
Optische Tests der Allgemeinen Relativitätstheorie

1981 Dipl. Phys. (Ludwig-Maximilians-Universität München)
Title of the Diplom thesis:
Quantenfluktuationen in Ringlaser-Gyroskopen

Employment History

1991-present University of Ulm
Chair-Professor of Theoretical Physics (W3)

2019-2022 German Aerospace Center (DLR), Institute of Quantum Technologies, Ulm
Acting Director

1986-1991 Max-Planck-Institut für Quantenoptik, Garching,
Research Scientist (Prof. Dr. H. Walther)

1984-1986 Center for Theoretical Physics, Austin, TX, USA
Postdoctoral Research Associate (Prof. Dr. J. A. Wheeler)

1982-1983 Leave of absence from the Max-Planck-Institut für Quantenoptik, Garching
to the Institute of Modern Optics, Albuquerque, N.M., USA
Ph.D. student with Prof. Dr. M. O. Scully

1980-1984 Max-Planck-Institut für Quantenoptik, Garching
Diplom and Ph.D. student with Prof. Dr. M. O. Scully

Professional Activities

Organizer and co-organizer of about 35 international conferences on quantum optics

Referee for many scientific journals such as:
Applied Physics B, Foundations of Physics, Journal of Modern Optics, Journal of the Optical Society of America, Nature, Nature Physics, Optics Communications, Physical Review A, Physical Review B, Physical Review D, Physical Review Letters, and Science

Referee for many funding agencies such as:
Deutsche Forschungsgemeinschaft, Fond zur Förderung der Wissenschaften (Austria), Marsden Fund (New Zealand)

Chairman of the Quantum Optics Division of the German Physical Society, 1996-1998

Editor of the journal *Optics Communications*, 1996-2011

Co-Editor of the Journal *Fortschritte der Physik*, 1996-2019

Member and Vice-Chairman of the Selection Committee of the Alexander von Humboldt-Foundation, 1999-2008

Member of the Advisory Board of *New Journal of Physics*, 1999-2009

Vice-Chairman of the Hochschulrat of Ulm University, 2000-2003

Divisional Associate Editor for *Physical Review Letters*, 2000-2006

Member of the DFG Senate Subcommittee on Sonderforschungsbereiche, 2002-2005

Council Member of the *Doppler Institute* at Czech Technical University in Prague, 2006-2011

Member of the Fundamental Physics Advisory Group (FPAG) of the European Space Agency (ESA), 2007-2009

Member of the Selection Committee of the *Herbert Walther Prize* of the OSA and DPG, 2007-2011

Member of the Editorial Board of *Progress in Optics*, 2008-

Vice-President of the Heidelberg Academy of Sciences and Humanities, 2009-2012

Member of the Advisory Board of the Heraeus-Foundation, 2009-2022

Member of the DFG Selection Committee for the Leibniz-Prize, 2009-2011

Member of the Advisory Board of the Helmholtz-Zentrum Jena, 2009-2012

Member of the Wissenschaftlicher Beirat für Programmevaluation der Alexander von Humboldt-Stiftung, 2011-2013

Member of the Selection Committee of the *Wigner Medal*, 2009-
(Chair of the Selection Committee, 2011-2012)

Member of the Kuratorium Deutsches Museum (Munich), 2016-

Member of the Editorial Board of *Lecture Notes in Physics*, 2017-

Research Areas

Theoretical quantum optics, physics of cold atoms and analogies to solid state physics, fundamental questions of quantum mechanics, general relativity, number theory, statistical physics and non-linear dynamics

Awards

2021 Honorary Degree of the Faculty of Nuclear Sciences and Physical Engineering of Czech Technical University in Prague

2021 Herbert-Walther-Preis (Deutsche Physikalische Gesellschaft and Optical Society of America)

2019 Personal medal of Cardinal Duka, Archbishop of Prague

2019 Election as Honorary Member of the Hungarian Academy of Sciences

2018 Sackler Lecturer sponsored by The Mortimer and Raymond Sackler Institute of Advanced Studies, Tel Aviv University, Wintersemester 2018/2019

2018 Election to "Outstanding Reviewer for New Journal of Physics in 2017" by IOP Publishing

2016 Eminent Scholar in Residence and Visiting Professor in College of Agriculture and Life Sciences, Texas A&M University

2016 Equal Opportunity Award of Ulm University

2015 Medal of the Faculty of Nuclear Sciences and Physical Engineering of Czech Technical University in Prague

2013 Faculty Fellow at Hagler Institute for Advanced Study at Texas A&M University

2008 Election to Academia Europaea

2008 Election to "Outstanding Referee" by the American Physical Society

2008 Election to the Austrian Academy of Sciences (corresponding member)

2008 Willis E. Lamb Award 2008 for Laser Science and Quantum Optics

2007 Fellow of the European Optical Society

2007 Medal of Czech Technical University in Prague, First Class

2006 Election to Royal Danish Academy of Sciences and Letters (corresponding member)

2005 Silver Medal of the Faculty of Nuclear Sciences and Physical Engineering of the Czech Technical University in Prague

2005 Election to Heidelberger Akademie der Wissenschaften

2002 Max Planck Research Award

2002 Election to Deutsche Akademie der Naturforscher Leopoldina

2000 Fellow of the American Physical Society

1999 Fellow of the Institute of Physics

1997 Fellow of the Optical Society of America

1995 Gottfried-Wilhelm Leibniz-Preis (Deutsche Forschungsgemeinschaft)

1992 Ernst-Abbe-Medaille (International Commission for Optics)

1991 Preis der Deutschen Physikalischen Gesellschaft

1983 Otto-Hahn-Medaille (Max-Planck-Gesellschaft)

Teaching Experience

Repeatedly taught the standard courses of Theoretical Physics: Theoretical Mechanics, Quantum Mechanics I, Quantum Mechanics II (Quantum Electrodynamics), Classical Electrodynamics, Thermodynamics and Statistics, Quantum Optics I and II, Quantum Optics and Number Theory.

In the Institut für Quantenphysik we have awarded so far 170 Diplomas (Masters, Bachelors), 60 Doctorates (Ph.D.) and 6 Habilitations. Presently 4 students are working towards their Master/Bachelor and 8 students are working towards their Doctorate degree (Ph.D.).

Offers

2005 Texas A&M University, College Station (USA)
Munnerlyn/Heep Chair of Quantum Optics (turned down June 2005)

2005 University of Texas at Dallas (USA)

Professor of Physics with tenure (turned down June 2005)

1990 Universität Ulm
Chair of Theoretical Physics (C4) (accepted December 1990)

1990 Max-Planck-Gesellschaft
Associate Professor with tenure (C3) (accepted November 1990)

1990 Universität Konstanz
Associate Professor with tenure (C3) (turned down October 1990)

1990 Louisiana State University, Baton Rouge
Associate Professor with tenure (turned down March 1990)

Publications

More than 400 publications in journals and books
Moreover, 12 articles were reprinted in books on quantum optics

Three movies

Co-editor of the books:
Noise and Chaos in Nonlinear Dynamical Systems (Cambridge Press, 1993)
Ode to a Quantum Physicist: A Festschrift in Honor of Marlan O. Scully (Elsevier, Amsterdam, 2000)
100 Years Werner Heisenberg – Works and Impact (Wiley-VCH, Weinheim, 2002)
Elements of Quantum Information (Wiley-VCH, Weinheim, 2007)
Mathematical Analysis of Evolution, Information, and Complexity (Wiley-VCH, Weinheim, 2009)
Atom Optics and Space Physics, Proceedings of the International School of Physics "Enrico Fermi" (Elsevier, Amsterdam, 2009)
Foundations of Quantum Theory, Proceedings of the International School of Physics "Enrico Fermi" (Elsevier, Amsterdam, 2019)

Author of the text book:
Quantum Optics in Phase Space (VCH-Wiley, Weinheim, 2001; Russian translation 2005; Chinese edition 2010)

Editor of 11 special issues of the journals:
Applied Physics B, Fortschritte der Physik, International Journal of Modern Physics B, Journal of Modern Optics, New Journal of Physics, Optics Communications, Physica Scripta, and *Quantum and Semiclassical Optics*

Service

Chairman of the Physics Jury of "Jugend forscht", 2013-2015

Member of Grants Committee on Collaboration Research Centers (Ausschuss für die Belange der Sonderforschungsbereiche) at DFG, 2002-2005

Member and Vice-Chairman Central Selection Committee (Zentraler Auswahlausschuss) of the Alexander von Humboldt-Stiftung, 2000-2008

Elected member of Council of Ulm University (Universitätsrat), 2000-2003

Elected member of Senate (Kleiner Senat) of Ulm University, 1997-1999

Elected member of Larger Senate (Großer Senat) of Ulm University, 1992-1996

Chairman of Ph.D. committee of Ulm University, 1993-1995

Vice-Chairman of Ph.D. committee of Ulm University, 1991-1993

I. Internal Reports

1. Habilitation Thesis
   Interference in Phase Space
   Ludwig-Maximilians-Universität München (1989)

2. Ph.D. Thesis
   Optische Tests der Allgemeinen Relativitätstheorie
   Ludwig-Maximilians-Universität München (1984)
   [published as MPQ-laboratory report No. 89 (1984)]

3. Diplom Thesis
   Quantenfluktuationen in Ring-Laser-Gyroskopen
   Ludwig-Maximilians-Universität München (1982)
   [published as MPQ-laboratory report No. 54 (1981)]

II. Publications in journals and conference reports

Publications listed in chronological order

1. J.D. Cresser, W.H. Louisell, P. Meystre, W. Schleich, and M.O. Scully
   Quantum Noise in Ring-Laser Gyroscopes
   I. Theoretical Formulation of Problem
   Phys. Rev. A **25**, 2214-2225 (1982)

2. W. Schleich, M.O. Scully, and V. Sanders
   Quantum Noise in Ring-Laser Gyroscopes
   in: "Coherence and Quantum Optics V", Eds.: E. Wolf and L. Mandel
   (Plenum Press, New York, 1984) p. 915-922

3. W. Schleich and M.O. Scully
   General Relativity and Modern Optics
   in: "New Trends in Atomic Physics", Proceedings of the Les Houches Summer School, Session XXXVIII, 1982, Eds.: R. Stora and G. Grynberg
   (North Holland, Amsterdam, 1984) p. 995-1124

4. W. Schleich, C.-S. Cha, and J.D. Cresser
   Quantum Noise in a Dithered-Ring-Laser Gyroscope
   Phys. Rev. A **29**, 230-238 (1984)

5. W. Schleich and P. Dobiasch
   Noise Analysis of Ring-Laser Gyroscope with Arbitrary Dither
   Opt. Commun. **52**, 63-68 (1984)

6. W.W. Chow, J. Gea-Banacloche, L.M. Pedrotti, V.E. Sanders, W. Schleich, and M.O. Scully
   The Ring-Laser Gyro
   Rev. Mod. Phys. **57**, 61-104 (1985)

7. W. Schleich, P. Dobiasch, V. Sanders, and M.O. Scully
   Nonequilibrium Statistical Physics in a Dithered-Ring-Laser Gyroscope
   in: "Nonequilibrium Quantum Statistical Physics" Eds.: G. Moore and M.O. Scully (Plenum Press, New York, 1986) p. 385-408

8. L.M. Pedrotti, W. Schleich, and M.O. Scully
   Laser Probes of General Relativity

in: "Proceedings of the Southwest Conference on Optics", Albuquerque 1985, Ed.: S. Stotlar (SPIE Bellingham, 1986)

9. W. Schleich and J.A. Wheeler
Interference in Phase Space
in: "The Physics of Phase Space", Eds.: Y.S. Kim and W.W. Zachary
(Springer, New York, 1987) p. 200-204

10. K. Vogel, H. Risken, W. Schleich, M. James, F. Moss, and P.V.E. McClintock
Skewed Probability Densities in the Ring-Laser Gyroscope: A Colored Noise Effect
Phys. Rev. A **35**, 463-465 (1987)
(Rapid Communication)

11. T. Hellmuth, H. Walther, A. Zajonc, and W. Schleich
Delayed-Choice Experiments in Quantum Interference
Phys. Rev. A **35**, 2532-2541 (1987)

12. W. Schleich and H. Walther
Single Atom and Single Photon Experiments
in: "Proceedings of the Second International Symposium on Foundations of Quantum Mechanics", Ed.: K. Kamiyama (Phys. Soc. of Japan, Tokyo, 1987) p. 25-35

13. K. Vogel, Th. Leiber, H. Risken, P. Hänggi, and W. Schleich
Locking Equation with Colored Noise: Continued Fraction Solution versus Decoupling Theory
Phys. Rev. A **35**, 4882-4885 (1987)
(Rapid Communication)

14. W. Schleich and J.A. Wheeler
Oscillations in Photon Distribution of Squeezed States and Interference in Phase Space
Nature **326**, 574-577 (1987)
reprinted in: "Nonclassical Effects in Quantum Optics", Eds.: P. Meystre and D.F. Walls (American Institute of Physics, New York, 1991)
and: "Fundamentals of Quantum Optics", SPIE Milestone Series, Eds.: G.S. Agarwal (SPIE, Bellingham, 1994)

15. K. Vogel, H. Risken, W. Schleich, M. James, F. Moss, R. Mannella, and P.V.E. McClintock
Colored Noise in the Ring Laser Gyroscope: Theory and Simulation
J. Appl. Phys. **62**, 721-723 (1987)

16. W. Schleich and J.A. Wheeler
Oscillations in Photon Distribution of Squeezed States
J. Opt. Soc. Am. B **4**, 1715-1722 (1987)
reprinted in: "Photon Statistics and Coherence in Nonlinear Optics",
Ed.: J. Perina (SPIE, Bellingham, 1991)

17. W. Schleich and M.O. Scully
Quantum-Noise Quenching in the Correlated Spontaneous Emission Laser as a Multiplicative Noise Process: I. A Geometrical Argument
Phys. Rev. A **37**, 1261-1269 (1988)
reprinted in:"Fundamentals of Quantum Optics ", SPIE Milestone Series, Ed. G. S. Agarwal (SPIE, Billingham, 1994)

18. W. Schleich, M.O. Scully, and H.-G. von Garßen
Quantum Noise Quenching in the Correlated Spontaneous Emission Laser as a Multiplicative

Noise Process: II. Rigorous Analysis Including Amplitude Noise
Phys. Rev. A **37**, 3010-3017 (1988)

19. J. Gea-Banacloche, W. Schleich, and M.O. Scully
Tests of General Relativity and the Correlated Emission Laser
in: "Laser Spectroscopy VIII", Ed.: J. Svanberg (Springer, Berlin, 1988)

20. W. Schleich, H. Walther, and J.A. Wheeler
Area in Phase Space as Determiner of Transition Probability: Bohr-Sommerfeld Bands, Wigner Ripples and Fresnel Zones
Found. Phys. **18**, 953-968 (1988)

21. W. Schleich, D.F. Walls, and J.A. Wheeler
Area of Overlap and Interference in Phase Space versus Wigner Pseudo-Probabilities
Phys. Rev. A **38**, 1177-1186 (1988)

22. M. Orszag, J. Bergou, W. Schleich, and M.O. Scully
The Correlated Spontaneous Emission Laser: Theory and Recent Developments
in: "Squeezed and Non-Classical Light", Eds.: P. Tombesi and R. Pike (Plenum Press, New York, 1988) p. 278-299

23. W. Schleich
Phase Space, Correspondence Principle and Dynamical Phases: Photon Count Probabilities of Coherent and Squeezed States via Interfering Areas in Phase Space
in: "Squeezed and Non-Classical Light", Eds.: P. Tombesi and R. Pike (Plenum Press, New York, 1988) p. 129-149

24. R. Blümel, J.M. Chen, E. Peik, W. Quint, W. Schleich, Y.R. Shen, and H. Walther
Phase Transitions of Stored Laser-Cooled Ions
Nature **334**, 309-313 (1988)

25. K. Vogel, H. Risken, and W. Schleich
Noise in a Ring Laser Gyroscope
in: "Noise in Nonlinear Dynamical Systems", Eds.: F. Moss and P.V.E. McClintock (Cambridge Press, London, 1989) p. 271-292

26. R. Blümel, J.M. Chen, F. Diedrich, E. Peik, W. Quint, W. Schleich, Y.R. Shen, and H. Walther
Phase Transitions of Stored Laser-Cooled Ions
in: "Proceedings of the Eleventh International Conference on Atomic Physics", Eds.: S. Haroche, J.C. Gay and G. Grynberg, (World Scientific, Singapur, 1989) p. 243-259

27. C. Benkert, W. Schleich, and M.O. Scully
A Physical Picture of the Two-Photon Correlated Spontaneous Emission Laser
in: "Proceedings of the Eleventh International Conference on Atomic Physics", Eds.: p. Haroche, J.C. Gay and G. Grynberg, (World Scientific, Singapur, 1989) p. 457-465

28. W. Schleich, R.J. Horowicz, and S. Varro
Area of Overlap and Interference in Phase Space as a Guide to Phase Distribution and Wigner Function in Action-Angle Variables of a Squeezed State
in: "Quantum Optics V", Eds.: J. Harvey and D.F. Walls (Springer, Heidelberg, 1989) p. 133-142

29. W. Quint, W. Schleich, and H. Walther
Order and Chaos of Stored Laser-Cooled Ions
Phys. World **2** (8), 30-33 (1989)

30. W. Schleich and P.V.E. McClintock
From Humpty Dumpty to Moslem Art
Nature **339**, 257-258 (1989)

31. W. Schleich, R.J. Horowicz, and S. Varro
A Bifurcation in the Phase Probability of a Highly Squeezed State
Phys. Rev. A **40**, 7405-7408 (1989)

32. W. Quint, W. Schleich and H. Walther
Le piégeage des ions
La Recherche **20**, 1194-1203 (1989)

33. R.G.K. Habiger, H. Risken, M. James, F. Moss, and W. Schleich
Noise Color Induced Quenching of Fluctuations in a Correlated Spontaneous Emission Laser Model
Phys. Rev. A **41**, 3950-3959 (1990)

34. G. Rempe, W. Schleich, M.O. Scully, and H. Walther
Quantum Effects in Single Atom and Single Photon Experiments
in: "Proceedings of the Third International Symposium on Foundations of Quantum Mechanics", Ed.: Y. Murayama (Phys. Soc. of Japan, Tokyo, 1990) p. 294-304
see also: "Applied Laser Spectroscopy", Eds.: W. Demtröder and M. Inguscio (Plenum Press, New York, 1990) p. 13-30
reprinted in: "Selected Papers from the Proceedings of the 1st through 4th International Symposia on Foundations of Quantum Mechanics", Eds. S. Nakajima, Y. Murayama and A. Tonomura, Advanced Series in Applied Physics 4 (World Scientific, Singapore, 1996) p. 336-346

35. W. Schleich, J.P. Dowling, R.J. Horowicz, and S. Varro
Asymptotology in Quantum Optics
in: "New Frontiers in QED and Quantum Optics", Ed.: A. Barut, (Plenum Press, New York, 1990) p. 31-61

36. C. Benkert, W. Schleich, and M.O. Scully
A Heuristic Analysis of Quantum Noise Quenching in the Two-Photon Correlated Emission Laser
Ann. Physik (Leipzig) **47**, 649-658 (1990)

37. W. Schleich and H. Walther
1989 Nobel Prizes: Ion Traps, an Isolated Electron and Atomic Clocks
Europhysics News **21**(2), 31-33 (1990)

38. B. Yurke, W. Schleich, and D.F. Walls
Quantum Superpositions Generated by Quantum Non-Demolition Experiments
Phys. Rev. A **42**, 1703-1711 (1990)

39. W. Quint, W. Schleich, and H. Walther
Ordnung und Chaos in der Paul-Falle
Spektrum der Wissenschaft, p. 106 (March 1990)

40. C. Benkert, M.O. Scully, W. Schleich, and A.A. Rangwala
Quantum Noise Suppression in Lasers via Memory-Correlation Effects
Phys. Rev. A **42**, 1503-1514 (1990)

41. C.M. Caves, C. Zhu, G.J. Milburn, and W. Schleich
Photon Number Statistics for Two-Mode Squeezed States and Interference in Four-Dimensional Phase Space
Phys. Rev. A **43**, 3854-3861 (1991)

42. J.P. Dowling, W. Schleich, and J.A. Wheeler
Interference in Phase Space
Ann. Physik (Leipzig) **48**, 423-502 (1991)

43. W. Schleich, M. Pernigo, and Fam Le Kien
Nonclassical State from Two Pseudoclassical States
Phys. Rev. A **44**, 2172-2187 (1991)
reprinted in:"Fundamentals of Quantum Optics", SPIE Milestone Series, Ed. G. S. Agarwal (SPIE, Bellingham, 1994)

44. V.M. Akulin, Fam Le Kien, and W.P. Schleich
Deflection of Atoms by a Quantum Field
Phys. Rev. A **44**, R1462-1465 (1991)
(Rapid Communication)

45. W. Vogel and W.P. Schleich
Phase Distribution without Using Phase States
Phys. Rev. A **44**, 7642-7646 (1991)

46. M.O. Scully, H. Walther, G.S. Agarwal, Tran Quang, and W.P. Schleich
The Micromaser Spectrum
Phys. Rev. A **44**, 5992-5996 (1991)

47. W.P. Schleich, J.P. Dowling, and R.J. Horowicz
Exponential Decrease in Phase Uncertainty
Phys. Rev. A **44**, 3365-3368 (1991)

48. W.P. Schleich
Vom Ätherwind zu neuem Licht
Phys. Bl. **47**, 595-601 (1991)

49. W.P. Schleich and G. Süßmann
A Jump Shot at the Wigner Distribution
Phys. Today **44** (10), 146-148 (1991)

50. W.P. Schleich, J.P. Dowling, and R.J. Horowicz
A Gaussian Measure of Quantum Phase Noise
in: "'Proceedings of the Workshop on Squeezed States and Uncertainty Relations", Eds.: D. Han, Y.S. Kim and W.W. Zachary (Nasa Conference Publication, Goddard Space Flight Center, 1991) p. 299-309

51. H. Heitmann, W.P. Schleich, and M.O. Scully
New Laser Gyros for Tests of Metric Gravitation Theories
in: "Proceedings of the first William Fairbanks meeting on Relativity and Gravitational Experiments in Space", Ed.: R. Ruffini (World Scientific, Singapore, 1992)

52. K. Vogel and W.P. Schleich
More on Interference in Phase Space
in: "Fundamental Systems in Quantum Optics", Eds.: J. Dalibard, J.M. Raimond and J. Zinn-Justin (Elsevier, Amsterdam, 1992) p. 713-765

53. A. Mann, M. Revzen, and W. Schleich
A Unique Bell State
Phys. Rev. A **46**, 5363-5366 (1992)

54. W. Schleich, A. Bandilla, and H. Paul
Phase from the Q-Function via Linear Amplification
Phys. Rev. A **45**, 6652-6654 (1992)

55. J. Ben-Aryeh, Ch. Miller, H. Risken, and W. Schleich
Inhibition of Atomic Dipole Collapses by Squeezed Light: A Jaynes–Cummings Model Treatment
Opt. Commun. **90**, 259-264 (1992)

56. G.S. Agarwal, D. Home, and W. Schleich
Einstein-Podolsky-Rosen Correlation-Parallelism between the Wigner Function and the Local Hidden Variable Approaches
Phys. Lett. A **170**, 359-362 (1992)

57. K. Vogel, W.P. Schleich, G. Süßmann, and H. Walther
From the One-Atom Maser to Schrödinger Cats
in: "Proceedings of the 2nd Wigner Symposium", Eds.: H.D. Doebner, W. Scherer and F. Schroeck (World Scientific Singapur, 1992) p. 91-103

58. A.M. Herkommer, V.M. Akulin, and W.P. Schleich
Quantum Demolition Measurement of Photon Statistics via Atomic Beam Deflection
Phys. Rev. Lett. **69**, 3298-3301 (1992)

59. V.M. Akulin and W.P. Schleich
Landau-Zener Transition onto a Decaying Level
Phys. Rev. A **46**, 4110-4113 (1992)

60. M. Freyberger and W.P. Schleich
Photon Counting, Quantum Phase and Phase Space Distributions
Phys. Rev. A **47**, R30-R33 (1993)
(Rapid Communication)

61. M. Fleischhauer and W.P. Schleich
Revivals Made Simple: Poisson Summation Formula as a Key to the Revivals in the Jaynes-Cummings Model
Phys. Rev. A **47**, 4258-4269 (1993)

62. M. Freyberger, K. Vogel, and W.P. Schleich
Quantum Phase from Photon Counting and the Q-Function
Quantum Optics **5**, 65-67 (1993)

63. M.G. Benedict and W.P. Schleich
On the Correspondence of Semiclassical and Quantum Phase in Cyclic Evolution
Found. Phys. **23**, 389-397 (1993)

64. J. Bestle, V. M. Akulin, and W.P. Schleich
Classical and Quantum Stabilization of Atoms in Intense Laser Fields
Phys. Rev. A **48**, 746-751 (1993)

65. G.S. Agarwal, J.P. Dowling, and W.P. Schleich
Wigner Functions for Nonclassical States of a Collection of Two-Level Atoms
in: "Proceedings of the Second International Workshop on Squeezed States and Uncertainty Relations", Ed.: D. Han, Y.S. Kim and V.I. Man'ko (Nasa Conference Publication, Goddard Space Flight Center, 1993) p. 329-339

66. Tran Quang, G.S. Agarwal, J. Bergou, M.O. Scully, H. Walther, K. Vogel, and W.P. Schleich
Calculation of the Micromaser Spectrum I: Green's Function Approach and Approximate Analytical Techniques
Phys. Rev. A **48**, 803-812 (1993)

67. K. Vogel, W.P. Schleich, M.O. Scully, and H. Walther
Calculation of the Micromaser Spectrum II: Eigenvalue Approach
Phys. Rev. A **48**, 813-817 (1993)

68. M. Freyberger, K. Vogel, and W.P. Schleich
From Photon Counts to Quantum Phase
Phys. Lett. A**176**, 41-46 (1993)

69. I. Bialynicki-Birula, M. Freyberger, and W.P. Schleich
Various Measures of Quantum Phase Uncertainty: A Comparative Study
Physica Scripta T**48**, 113-118 (1993)

70. G. Schrade, V.M. Akulin, V.I. Man'ko, and W.P. Schleich
Photon Statistics of a Two-Mode Squeezed Vacuum
Phys. Rev. A **48**, 2398-2406 (1993)

71. K. Vogel, V.M. Akulin, and W.P. Schleich
Quantum State Engineering of the Radiation Field
Phys. Rev. Lett. **71**, 1816-1819 (1993)

72. M. Freyberger and W. Schleich
Die hohe Kunst der Zustandsmessung
Phys. Bl. **49** (12), 1109-1111 (1993)

73. K. Vogel, V.M. Akulin, and W. Schleich
Wie konstruiert man einen Quantenzustand
Phys. Bl. **49** (12), 1111-1112 (1993)

74. K. Vogel, V. M. Akulin, and W. Schleich
Quantum State Engineering
in: "Symposium on the Foundations of Modern Physics"
Eds.: P. Busch, P. Lahti and P. Mittelstaedt (World Scientific, Singapore, 1993) p. 369-377
This paper has been published in a slightly altered form in: " Proceedings of the Third International Workshop on Squeezed States and Uncertainty Relations", Eds: M. H. Rubin and Y.-H. Shih (NASA Conference Publication, Goddard Space Flight Center, 1994) p. 181-188

75. A.M. Herkommer, V.M. Akulin, and W.P. Schleich
Coherent Evolution after the Relaxation Time
Phys. Rev. A **49**, 3127-3130 (1994)

76. I. Averbukh, V.M. Akulin, and W.P. Schleich
A Quantum Lens for Atomic Waves
Phys. Rev. Lett. **72**, 437-441 (1994)

77. D. Krähmer, E. Mayr, K. Vogel, and W.P. Schleich
Meet a Squeezed State and Interfere in Phase Space
in: "Current Trends in Optics", Vol. II, Ed. J.C. Dainty
(Academic Press Boston, 1994) p. 37-50

78. M.O. Scully, H. Walther, and W.P. Schleich
Feynman's Approach to Negative Probability in Quantum Mechanics
Phys. Rev. A **49**, 1562-1566 (1994)

79. M. Freyberger and W. Schleich
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III. Reprints of publications

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4. W. Schleich, M. Pernigo and Fam Le Kien
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V. Movies

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2. G. Schrade, J. Bestle, P. Stifter, V.I. Manko, W.P. Schleich, and R.J. Glauber
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The Particle in the Box: Fractional Revivals, Quantum Carpets, and the Wigner Function
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