

## List of Publications

### Published Articles (excluding conference proceedings)

77. *Verifying multipartite mode entanglement of W states*, Lougovski P, van Enk SJ, Choi KS, et al., *New J. of Phys.*, **11**, 063029 (2009)
76. *Direct Measurements of Entanglement and Permutation Symmetry*, S.J. van Enk, *Phys. Rev. Lett.* **102**, 190503 (2009)
75. *Characterization of Multipartite Entanglement for One Photon Shared Among Four Optical Modes*, Papp SB, Choi KS, Deng H, et al., *Science*, 324, 764-768 (2009)
74. *Splitting the wavefunctions of two particles in two boxes*, S.J. van Enk *Am. J. Phys.* **77**, 140--143 (2009)
73. *Entanglement and purity of one- and two-photon states*, J.O.S. Yin and S.J. van Enk *Phys. Rev. A* **77**, 062333 (2008)
72. *Multicolor multipartite entanglement produced by vector four-wave mixing in a fiber*, C.J. McKinstrie, S.J. van Enk, M.G. Raymer, and S. Radic, *Optics Express* **16**, 2720--2739 (2008)
71. *Photons in polychromatic rotating modes*, S.J. van Enk and G. Nienhuis, *Phys. Rev. A* **76**, 053825 (2007)
70. *A toy model for quantum mechanics*, S.J. van Enk, *Found. Phys.* **37**, 1447--1460 (2007)
69. *On experimental entanglement verification protocols*, S.J. van Enk, N. Lutkenhaus, and H.J. Kimble, *Phys. Rev. A* **75**, 052318 (2007)
68. *Mesoscopic entanglement of atomic ensembles through non-resonant stimulated Raman scattering*, Wenhai Ji, Chunbai Wu, S.J. van Enk, M.G. Raymer, *Phys. Rev. A* **75**, 052305 (2007)
67. *Reply to "Comment on "Single-particle entanglement" "*, S.J. van Enk, *Phys. Rev. A* **74**, 026302 (2006)
66. *Quantum communication, reference frames, and gauge theory*, S.J. van Enk, *Phys. Rev. A* **73**, 042306 (2006)

65. *Single-particle entanglement*, S.J. van Enk, Phys. Rev. A **72**, 064306 (2005)
64. *Measurement-induced entanglement for excitation stored in remote atomic ensembles*, C.W. Chou, H. de Riedmatten, D. Felinto, S.V. Polyakov, S.J. van Enk, and H.J. Kimble, Nature **438**, 828—832 (2005)
63. *Comment on “Quantum state transfer between matter and light”*, S.J. van Enk and H.J. Kimble, Science **309**, 1187 (2005)
62. *Decoherence of multi-dimensional entangled coherent states*, S.J. van Enk, Phys. Rev. A **72**, 022308 (2005)
61. *Relations between cloning and the universal-NOT derived from conservation laws*, S.J. van Enk, Phys. Rev. Lett. **95**, 010502 (2005)
60. *The most robust entangled state of light*, S.J. van Enk and O. Hirota, Phys. Rev. A **71**, 062322 (2005)
59. *Quantifying the resource of sharing a reference frame*, S.J. van Enk, Phys. Rev. A **71**, 032339 (2005)
58. *Quantum information processing in cavity-QED*, S.J. van Enk, H.J. Kimble, and H. Mabuchi, Quantum Information Processing **3**, 75--90 (2004)
57. *Push-button teleportation*, H.J. Kimble and S.J. van Enk, Nature **429**, 712--713 (2004)
56. *Atoms, dipole waves, and strongly focused light beams*, S.J. van Enk, Phys. Rev. A **69**, 043813 (2004)
55. *Reduction theorems for optimal unambiguous state discrimination of density matrices*, P. Raynal, N. Lutkenhaus, and S.J. van Enk, Phys. Rev. A **68**, 022308 (2003)
54. *Quantum communication protocols with the vacuum*, S.J. van Enk and T. Rudolph, Quantum Information and Computation **3**, 423--430 (2003)
53. *Entanglement capabilities in infinite dimensions: multi-dimensional entangled coherent states*, S.J. van Enk, Phys. Rev. Lett. **91**, 017902 (2003)
52. *Odd numbers of photons and teleportation*, S.J. van Enk, Phys. Rev. A **67**, 022318 (2003)

51. *Local vs. joint measurements for the entanglement of assistance*, T. Laustsen, F. Verstraete, and S.J. van Enk, *Quantum Information and Computation* **3**, 64--83 (2003)
50. *Entanglement of electromagnetic fields*, S.J. van Enk, *Phys. Rev. A* **67**, 022303 (2003)
49. *Unambiguous state discrimination of coherent states with linear optics: application to quantum cryptography*, S.J. van Enk, *Phys. Rev. A* **66**, 042313 (2002)
48. *Phase measurements with weak reference pulses*, S.J. van Enk, *Phys. Rev. A* **66**, 042308 (2002)
47. *Quantum state of a propagating laser field*, S.J. van Enk and C.A Fuchs, *Quantum Information and Computation*, **2**, 151--165 (2002)
46. *On the classical character of control fields in quantum information processing*, S.J. van Enk and H.J. Kimble, *Quantum Information and Computation* **2**, 1--13 (2001)
45. *Classical rules and quantum games*, S.J. van Enk and R. Pike, *Phys. Rev. A* **66**, 024306 (2002)
44. *Quantum state of an ideal propagating laser field*, S.J. van Enk and C.A Fuchs, *Phys. Rev. Lett.* **88**, 027902 (2002)
43. *Quantum networks based on cavity QED*, H. Mabuchi, M. Armen, B. Lev, M. Loncar, J. Vuckovic, H.J. Kimble, J. Preskill, M. Roukes, A. Scherer, and S.J. van Enk, *Quantum Information and Computation* **1**, 7--12 (2001)
42. *The physical meaning of phase and its importance for teleportation*, S.J. van Enk, *J. Mod. Optics* **48**, 2049--2054 (2001)
41. *Entangled coherent states: Teleportation and decoherence*, S.J. van Enk and O. Hirota, *Phys. Rev. A* **64**, 022313 (2001)
40. *Cooling of a single atom in an optical trap inside a resonator*, S.J. van Enk, J. McKeever, H.J. Kimble, and J. Ye, *Phys. Rev. A* **64**, 013407 (2001)
39. *Strongly focused light beams interacting with single atoms in free space*, S.J. van Enk and H.J. Kimble, *Phys. Rev. A* **63**, 023809 (2001)
38. *Paradoxical behavior of an infinite ladder network of inductors and capacitors*, S.J. van Enk, *Am. J. Phys.* **68**, 854--856 (2000)

37. *Single atom in free space as a quantum aperture*, S.J. van Enk and H.J. Kimble, Phys. Rev. A **61**, 051802 (2000)
36. *Experimental proposal for achieving superadditive communication capacities with a binary quantum alphabet*, J.R. Buck, S.J. van Enk and C.A. Fuchs Phys. Rev. A **61**, 032309 (2000)
35. *Quantum and classical game strategies*, S.J. van Enk, Phys. Rev. Lett. **84**, 789 (2000)
34. *Discrete formulation of teleportation with continuous variables*, S.J. van Enk, Phys. Rev. A, **60**, 5095—5097 (1999)
33. *Physical implementations for quantum communication in quantum networks*, H.J. Briegel, J.I. Cirac, W. Dur, S.J. van Enk, H.J. Kimble, H. Mabuchi, and P. Zoller, Lecture Notes in Computer Science **1509**, 373--382 (1999)
32. *Quantum communication with dark photons*, S.J. van Enk, H.J. Kimble, J.I. Cirac and P. Zoller, Phys. Rev. A **59** , 2659—2664 (1999)
31. *Quantum communication in a quantum network*, J.I. Cirac, S.J. van Enk, P. Zoller, H.J. Kimble and H. Mabuchi, Physica Scripta **T76**, 223--232 (1998)
30. *Quantum communication and the creation of maximally entangled pairs of atoms over a noisy channel*, H.-J. Briegel, W. Dur, S.J. van Enk, J.I. Cirac and P. Zoller, Philos. T. Roy. Soc. A **356**, 1841--1851 (1998)
29. *Photonic channels for quantum communication*, S.J. van Enk, J.I. Cirac and P. Zoller, Science **279**, 205--208 (1998)
28. *Purifying two-bit quantum gates and joint measurements in cavity-QED*, S.J. van Enk, J.I. Cirac and P. Zoller, Phys. Rev. Lett. **79**, 5178--5181 (1997)
27. *Ideal quantum communication over noisy channels: a quantum optical implementation*, S.J. van Enk, J.I. Cirac and P. Zoller, Phys. Rev. Lett. **78**, 4293--4296 (1997)
26. *On the free-free dipole moment*, S.J. van Enk, Jian Zhang and P. Lambropoulos, J. Phys. B Lett. **30**, L17--21 (1997)
25. *Stimulated Raman scattering in helium with soft-X-ray laser radiation*, E.E. Fill, S.J. van Enk, Jian Zhang and P. Lambropoulos, Phys. Rev. A **54**, 5374--5377 (1996)

24. *Third harmonic generation through double resonances: a model in He*, S.J. van Enk, Jian Zhang and P. Lambropoulos, *J. Phys. B* **29**, 4041--4057 (1996)
23. *Is there a static magnetic field of the photon?*, S.J. van Enk, *Found. Phys. Lett.* **9**, 183--190 (1996)
22. *Calculation of  $\chi(3)$  in He including configuration interaction for XUV photons*, S.J. van Enk, Jian Zhang and P. Lambropoulos, *Z. Phys. D* **37**, 211--217 (1996)
21. *Propagation and amplification of short-wavelength radiation in an autoionizing medium*, Jian Zhang, S.J. van Enk and P. Lambropoulos, *Optics Commun.* **125**, 168--176 (1996)
20. *Excess photon ionization and harmonic generation through an autoionizing resonance*, Jian Zhang and S.J. van Enk, *Phys. Rev. A* **52**, 4640—4646 (1995)
19. *Calculation of  $\chi(3)$  in He for 25eV photons*, S.J. van Enk, Jian Zhang and P. Lambropoulos, *J. Phys. B.* **28**, 3453--3459 (1995)
18. *Casimir torque between dielectrics*, S.J. van Enk, *Phys. Rev. A* **52**, 2569--2575 (1995)
17. *Coherent effects through the continuum: Transparency, population trapping and amplification without inversion through autoionizing resonances*, S.J. van Enk, Jian Zhang and P. Lambropoulos, *Applied. Phys. B* **60**, S141--S152 (1995)
16. *The Casimir effect in dielectrics: A numerical approach*, S.J. van Enk, *J. Mod. Optics* **42**, 321--338 (1995)
15. *Angular momentum in evanescent waves*, S.J. van Enk and G. Nienhuis, *Optics Commun.* **112**, 225--234 (1994)
14. *Effect of the continuum on electromagnetically induced transparency with matched pulses*, S.J. van Enk, Jian Zhang and P. Lambropoulos, *Phys. Rev. A* **50**, 2777--2780 (1994)
13. *Selection rules and center-of-mass motion of ultracold atoms*, S.J. van Enk, *Quantum Optics* **6**, 445--457 (1994)
12. *Pump-induced transparency and enhanced third harmonic generation near an autoionizing state*, S.J. van Enk, Jian Zhang and P. Lambropoulos, *Phys. Rev. A* **50**, 3362--3365 (1994)

11. *Commutation rules and eigenvalues of spin and orbital angular momentum of radiation fields*, S.J. van Enk and G. Nienhuis, *J. Mod. Optics* **41**, 963--977 (1994)
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9. *Geometric phase, transformations of Gaussian light beams and angular momentum transfer*, S.J. van Enk, *Optics Commun.* **102**, 59--64 (1993)
8. *Spherical angle operators for quantum-mechanical angular momentum*, G. Nienhuis and S.J. van Enk, *Physica Scripta* **T48**, 87--93 (1993)
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4. *Inelastic collisions and gas-kinetic effects of light*, S.J. van Enk and G. Nienhuis, *Phys. Rev. A* **44**, 7615--7625 (1991)
3. *Macroscopic state of gases in a light field*, G. Nienhuis and S.J. van Enk, *Ann. Physik (Leipzig)* **48**, 169--184 (1991)
2. *Kinetic effects of light in binary gas mixtures*, S.J. van Enk and G. Nienhuis, *Phys. Rev. A* **42**, 3079--3089 (1990)
1. *Light-induced modifications of transport properties of single-component gases*, S.J. van Enk and G. Nienhuis, *Phys. Rev. A* **41**, 3757--3765 (1990)