PHYSICAL REVIEW A **THIRD SERIES, VOLUME 60, NUMBER 3** **SEPTEMBER 1999**

Dissipative dynamics of a vortex state in a trapped Bose-condensed gas R1779
P. O. Fedichev and G. V. Shlyapnikov
Measurement of Berry's phase using an atom interferometer R1783
C. L. Webb, R. M. Godun, G. S. Summy, M. K. Oberthaler, P. D. Featonby, C. J. Foot, and K. Burnett
Transitions in coherent oscillations between two trapped Bose-Einstein condensates R1787
S. Raghavan, A. Smerzi, and V. M. Kenkre

ARTICLES

Fundamental concepts

Semiclassical wave-packet propagation on potential surfaces coupled by ultrashort laser pulses 1791
Frank Grossmann
Classical-like states of spin $s=\frac{1}{2}$ 1797
D. Arsenović, N. Burić, and D. M. Davidović
Reciprocity between moduli and phases in time-dependent wave functions 1802
R. Englman and A. Yahalom
Faraday quantum clock and nonlocal photon pair correlations 1811
Y. Japha and G. Kurizki
Finite Kerr medium: Macroscopic quantum superposition states and Wigner functions on the sphere 1817
Sergey M. Chumakov, Alejandro Frank, and Kurt Bernardo Wolf
Spectra and magnetic properties of large spins in external fields 1824
V. A. Kalatsky and V. L. Pokrovsky
Resonances of the system of a particle in an oscillating spherical cavity 1845
K. Colanero and M.-C. Chu
Mobile flux line in an Aharonov-Bohm system 1850
Erik Sjöqvist and Marie Ericsson
Aharonov-Bohm scattering of charged particles and neutral atoms: The role of absorption 1854
Jürgen Audretsch and Vladimir D. Skarzhinsky
Variational approach to the tunneling-time problem 1864
Christian Bracher, Manfred Kleber, and Mustafa Riza
Complementarity and the uncertainty relations 1874
Gunnar Björk, Jonas Söderholm, Alexei Trifonov, Tedros Tsegaye, and Anders Karlsson
Creation of relativistic positronium. II. Photoproduction cross sections including Coulomb corrections 1883
Haakon A. Olsen

Quantum information

General teleportation channel, singlet fraction, and quasidistillation 1888
Michał Horodecki, Paweł Horodecki, and Ryszard Horodecki
Quantum cryptographic device using single-photon phase modulation 1899
Jean-Marc Mérolla, Yuri Mazurenko, Jean-Pierre Goedgebuer, Laurent Duraffourg, Henri Porte, and William T. Rhodes
Microscopic analogs of the Greenberger-Horne-Zeilinger experiment on an NMR quantum computer 1906
Ushio Sakaguchi, Hiroshi Ozawa, Chikara Amano, and Toshio Fukumi
Method of areas for manipulating the entanglement properties of one copy of a two-particle pure entangled state 1912
Lucien Hardy
Experimental realization of a two-bit phase damping quantum code 1924
Debbie Leung, Lieven Vandersypen, Xinlan Zhou, Mark Sherwood, Constantino Yannoni, Mark Kubinec, and Isaac Chuang

(Continued)