

PHYSICAL REVIEW A

For editorial and subscription correspondence,
please see inside front cover
(ISSN: 1050-2947)

PERIODICALS
Postmaster send address changes to:
American Institute of Physics
Suite 1NO1
2 Huntington Quadrangle
Melville, NY 11747-4502

THIRD SERIES, VOLUME 69, NUMBER 6

CONTENTS

JUNE 2004

RAPID COMMUNICATIONS

Atomic and molecular collisions and interactions

- Observation of interference effects in ejected electrons from 16.0-keV e^- -SF₆ collisions (*4 pages*) 060701(R)
S. Mondal and R. Shanker

Photon, electron, atom, and molecule interactions with solids and surfaces

- Ion-induced low-energy electron diffraction (*4 pages*) 060901(R)
T. Bernhard, Z. L. Fang, and H. Winter

Atomic and molecular processes in external fields

- Measurement of ¹²⁹Xe-Cs binary spin-exchange rate coefficient (*4 pages*) 061401(R)
Yuan-Yu Jau, Nicholas N. Kuzma, and William Happer

Matter waves

- Self-energy and critical temperature of weakly interacting bosons (*4 pages*) 061601(R)
Sascha Ledowski, Nils Hasselmann, and Peter Kopietz

Quantum optics, physics of lasers, nonlinear optics

- Scattering of dark-state polaritons in optical lattices and quantum phase gate for photons (*4 pages*) 061801(R)
M. Mašalas and M. Fleischhauer
- Dynamic optical bistability in resonantly enhanced Raman generation (*4 pages*) 061802(R)
I. Novikova, A. S. Zibrov, D. F. Phillips, A. André, and R. L. Walsworth
- Temporal characterization of ultrashort x-ray pulses using x-ray anomalous transmission (*4 pages*) 061803(R)
A. Nazarkin, A. Morak, I. Uschmann, E. Förster, and R. Sauerbrey

ARTICLES

Fundamental concepts

- Nonperturbative approach to Casimir interactions in periodic geometries (*18 pages*) 062101
Rauno Büscher and Thorsten Emig
- Correction to the Casimir force due to the anomalous skin effect (*12 pages*) 062102
R. Esquivel and V. B. Svetovoy



Copyright 2004 by The American Physical Society

(Continued)



1050-2947(200406)69:6;1-K

CONTENTS - *Continued*

PHYSICAL REVIEW A

THIRD SERIES, VOLUME 69, NUMBER 6

JUNE 2004

Hardy nonlocality via few-body fragmentation imaging (7 pages)	062103
James M. Feagin	
Simple model for the detection of a particle by a point detector (7 pages)	062104
Roy S. Bondurant	
Resonance poles in the complex-frequency domain for an oscillating barrier (7 pages)	062105
R. Lefebvre and N. Moiseyev	
Classical representation of wave functions for integrable systems (15 pages)	062106
Kenneth G. Kay	
Non-Markovian quantum trajectories versus master equations: Finite-temperature heat bath (9 pages)	062107
Ting Yu	
Consistency of the Shannon entropy in quantum experiments (12 pages)	062108
Piero G. Luca Mana	
“Quality” of a which-way detector (10 pages)	062109
Jesús Martínez-Linares and David A. Harmin	
Survival of quantum effects for observables after decoherence (6 pages)	062110
G. P. Berman, A. R. Bishop, F. Borgonovi, and D. A. R. Dalvit	
Active and passive quantum erasers for neutral kaons (8 pages)	062111
A. Bramon, G. Garbarino, and B. C. Hiesmayr	
Quantum information	
Quantum-cellular-automata pseudorandom maps (7 pages)	062301
Yaakov S. Weinstein and C. Stephen Hellberg	
Adiabatic quantum computation and quantum phase transitions (5 pages)	062302
José Ignacio Latorre and Román Orús	
Characterization of pure quantum states of multiple qubits using the Groverian entanglement measure (10 pages)	062303
Yishai Shimon, Daniel Shapira, and Ofer Biham	
Irreversibility of entanglement distillation for a class of symmetric states (5 pages)	062304
Karl Gerd H. Vollbrecht, Reinhard F. Werner, and Michael M. Wolf	
De Finetti representation theorem for quantum-process tomography (6 pages)	062305
Christopher A. Fuchs, Rüdiger Schack, and Petra F. Scudo	
Quantum logic gates using Stark-shifted Raman transitions in a cavity (5 pages)	062306
Asoka Biswas and G. S. Agarwal	
Additivity properties of a Gaussian channel (9 pages)	062307
Vittorio Giovannetti and Seth Lloyd	
Two-qubit entanglement dynamics in a symmetry-broken environment (8 pages)	062308
Marco Lucamarini, Simone Paganelli, and Stefano Mancini	
Short-time decoherence for general system-environment interactions (7 pages)	062309
Denis Tolkunov and Vladimir Privman	
When catalysis is useful for probabilistic entanglement transformation (5 pages)	062310
Yuan Feng, Runyao Duan, and Mingsheng Ying	

(Continued)

CONTENTS - Continued

PHYSICAL REVIEW A

THIRD SERIES, VOLUME 69, NUMBER 6

JUNE 2004

Multiparty entanglement in graph states (20 pages)	062311
M. Hein, J. Eisert, and H. J. Briegel	
Nuclear spin qubits in a pseudospin quantum chain (6 pages)	062312
E. Novais and A. H. Castro Neto	
Quantum error correction against correlated noise (9 pages)	062313
James P. Clemens, Shabnam Siddiqui, and Julio Gea-Banacloche	
Localizable entanglement in antiferromagnetic spin chains (9 pages)	062314
B.-Q. Jin and V. E. Korepin	
Correcting quantum errors with the Zeno effect (5 pages)	062315
Noam Erez, Yakir Aharonov, Benni Reznik, and Lev Vaidman	
Characterization of low-cost one-to-two qubit cloning (10 pages)	062316
Thomas Durt and Jiangfeng Du	
Simulating noisy quantum protocols with quantum trajectories (11 pages)	062317
Gabriel G. Carlo, Giuliano Benenti, Giulio Casati, and Carlos Mejía-Monasterio	
Optimal quantum detectors for unambiguous detection of mixed states (9 pages)	062318
Yonina C. Eldar, Mihailo Stojnic, and Babak Hassibi	
Quantum entangling power of adiabatically connected Hamiltonians (5 pages)	062319
Alioscia Hamma and Paolo Zanardi	
Cavity quantum electrodynamics for superconducting electrical circuits: An architecture for quantum computation (14 pages)	062320
Alexandre Blais, Ren-Shou Huang, Andreas Wallraff, S. M. Girvin, and R. J. Schoelkopf	
Minimal universal two-qubit controlled-NOT-based circuits (8 pages)	062321
Vivek V. Shende, Igor L. Markov, and Stephen S. Bullock	
Atomic and molecular structure and dynamics	
Nonzero total-angular-momentum three-body dynamics using hyperspherical elliptic coordinates: Application to muon transfer from muonic hydrogen to atomic oxygen and neon (8 pages)	062501
Arnaud Dupays, Bruno Lepetit, J. Alberto Beswick, Carlo Rizzo, and Dimitar Bakalov	
Nonvanishing $J=1 \leftrightarrow 0$ equal-frequency two-photon decay: $E1M2$ decay of the He-like 2^3S_1 state (5 pages)	062502
R. W. Dunford	
Relativistic many-body perturbation calculations on extreme ultraviolet and soft-x-ray transition energies in siliconlike iron (15 pages)	062503
Marius J. Vilkas and Yasuyuki Ishikawa	
Stability and structure of two coupled boson systems in an external field (5 pages)	062504
T. Sogo, O. Sørensen, A. S. Jensen, and D. V. Fedorov	
Calculation of quasidegenerate energy levels of two-electron ions (17 pages)	062505
O. Yu. Andreev, L. N. Labzowsky, G. Plunien, and G. Soff	
Interelectronic-interaction effect on the transition probability in high- Z He-like ions (9 pages)	062506
P. Indelicato, V. M. Shabaev, and A. V. Volotka	

(Continued)

Final-state probabilities for the hydrogen atom arising after (e^-, e^+) -pair annihilation in the positronium hydride PsH (5 pages)	062507
Alexei M. Frolov	
Semiclassical quantization of bound and quasistationary states beyond the adiabatic approximation (20 pages)	062508
V. A. Benderskii, E. V. Vetoshkin, and E. I. Kats	
Atomic and molecular collisions and interactions	
Collision-induced dissociation and dissociative capture of H_2^+ in Ar and Kr (5 pages)	062701
H. Martínez and F. B. Yousif	
Vibrationally resolved charge transfer of O^{3+} with molecular hydrogen (12 pages)	062702
J. G. Wang, P. C. Stancil, A. R. Turner, and D. L. Cooper	
Comparison of hyperspherical versus common-reaction-coordinate close-coupling methods for ion-atom collisions at low energies (10 pages)	062703
Anh-Thu Le, C. D. Lin, L. F. Errea, L. Méndez, A. Riera, and B. Pons	
Multipolar polarizations of methane from isotropic and anisotropic collision-induced light scattering (8 pages)	062704
T. Bancewicz, K. Nowicka, J.-L. Godet, and Y. Le Duff	
Dynamics of formation of K -hole fractions of sulfur projectiles inside a carbon foil (10 pages)	062705
J. Braziewicz, U. Majewska, K. Słabkowska, M. Polasik, I. Fijał, M. Jaskóła, A. Korman, W. Czarnacki, S. Chojnacki, and W. Kretschmer	
Close-coupling and distorted-wave calculations for electron-impact excitation of the $(5p^56p)$ states of xenon (6 pages)	062706
K. Bartschat, A. Dasgupta, and D. H. Madison	
Triple-differential cross sections for inner-shell electron-impact ionization of carbon (5 pages)	062707
Xiang-Fu Jia, Ming-Hai Liu, Shi-Yan Sun, and Yuan Wu	
Experimental study of coherence and correlation in the anisotropy of Ne KL - LLL satellite Auger decay (6 pages)	062708
László Tóth, Sándor Ricz, Endre Takács, Béla Sulik, János Végh, and Imre Kádár	
Double-to-single photoionization ratio of lithium at medium energies (6 pages)	062709
R. Wehlitz, M. M. Martinez, J. B. Bluett, D. Lukić, and S. B. Whitfield	
Spectator-electron behavior during cascade decay in krypton (12 pages)	062710
G. B. Armen, E. P. Kanter, B. Krässig, J. C. Levin, S. H. Southworth, and L. Young	
Low-energy electron scattering of NO : <i>Ab initio</i> analysis of the $^3\Sigma^-$, $^1\Delta$, and $^1\Sigma^+$ shape resonances in the local complex potential model (11 pages)	062711
Zhiyong Zhang, Wim Vanroose, C. W. McCurdy, A. E. Orel, and T. N. Rescigno	
Cross-section and asymmetry-parameter calculations for the outer- and inner-valence photoionization of ethane (9 pages)	062712
Daniele Toffoli, Mary J. Simpson, and Robert R. Lucchese	
Complex potential surface for the $^2B_1$ metastable state of the water anion (11 pages)	062713
Daniel J. Haxton, Zhiyong Zhang, C. W. McCurdy, and T. N. Rescigno	

Dynamics of dissociative attachment of electrons to water through the $^2B_1$ metastable state of the anion (16 pages)	062714
Daniel J. Haxton, Zhiyong Zhang, H-D. Meyer, T. N. Rescigno, and C. W. McCurdy	
Electron capture and excitation in collisions of $O^+(^4S, ^2D, ^2P)$ with H_2 molecules (10 pages)	062715
Lukáš Pichl, Yan Li, Heinz-Peter Liebermann, Robert J. Buenker, and Mineo Kimura	
Differential cross sections for elastic electron scattering in argon over the angular range 130° – 180° (8 pages)	062716
Brygida Mielewska, Ireneusz Linert, George C. King, and Mariusz Zubek	
Upper limits for stereoselective photodissociation of free amino acids in the vacuum ultraviolet region and at the C 1s edge (7 pages)	062717
Georg Prümper, Jens Viefhaus, Slobodan Cvejanović, Daniel Rolles, Oliver Geßner, Toralf Lischke, Rainer Hentges, Christian Wienberg, Willy Mahler, Uwe Becker, Burkhard Langer, Tommaso Prosperi, Nicola Zema, Stefano Turchini, Birgitt Zada, and Fred Senf	
Multiple ionization of noble gases by swift H_2^+ ions in breakup and nonbreakup collisions (11 pages)	062718
G. M. Sigaud, M. M. Sant'Anna, H. Luna, A. C. F. Santos, C. McGrath, M. B. Shah, E. G. Cavalcanti, and E. C. Montenegro	
Photon, electron, atom, and molecule interactions with solids and surfaces	
Four-wave mixing spectroscopy of gas-surface scattering (9 pages)	062901
V. G. Bordo	
Dynamics of alkali-metal atom photodesorption from polymer thin films (7 pages)	062902
J. Brewer, V. G. Bordo, M. J. Kasprowicz, and H.-G. Rubahn	
Energy loss of helium ions in zinc (6 pages)	062903
G. H. Lantschner, J. C. Eckardt, A. F. Lifschitz, N. R. Arista, L. L. Araujo, P. F. Duarte, J. H. R. dos Santos, M. Behar, J. F. Dias, P. L. Grande, C. C. Montanari, and J. E. Miraglia	
Coulomb-explosion imaging of CH_2^+ : Target-polarization effects and bond-angle distribution (10 pages) . . .	062904
L. Lammich, H. Buhr, H. Kreckel, S. Krohn, M. Lange, D. Schwalm, R. Wester, A. Wolf, D. Strasser, D. Zajfman, Z. Vager, I. Abril, S. Heredia-Avalos, and R. Garcia-Molina	
Alkali-metal adsorbate polarization on conducting and insulating surfaces probed with Bose-Einstein condensates (6 pages)	062905
J. M. McGuirk, D. M. Harber, J. M. Obrecht, and E. A. Cornell	
Clusters (including fullerenes)	
Energy distributions of ions emitted from argon clusters Coulomb-exploded by intense femtosecond laser pulses (4 pages)	063201
M. Hirokane, S. Shimizu, M. Hashida, S. Okada, S. Okihara, F. Sato, T. Iida, and S. Sakabe	
Atomic and molecular processes in external fields	
Ground-state properties of artificial bosonic atoms, Bose interaction blockade, and the single-atom pipette (16 pages)	063401
Eugene B. Kolomeisky, Joseph P. Straley, and Ryan M. Kalas	
l dependence of dielectronic recombination from a continuum of finite bandwidth in a static electric field (8 pages)	063402
E. S. Shuman, C. M. Evans, and T. F. Gallagher	

Laser collimation of a continuous beam of cold atoms using Zeeman-shift degenerate-Raman-sideband cooling (9 pages)	063403
G. Di Domenico, N. Castagna, G. Mileti, P. Thomann, A. V. Taichenachev, and V. I. Yudin	
Laser collimation of an atomic gallium beam (5 pages)	063404
Steven J. Rehse, Karen M. Bockel, and Siu Au Lee	
Cold-Rydberg-gas dynamics (9 pages)	063405
A. Walz-Flannigan, J. R. Guest, J.-H. Choi, and G. Raithel	
Dynamics of neutral molecules stored in a ring (5 pages)	063406
Floris M. H. Crompvoets, Hendrick L. Bethlem, Jochen Küpper, André J. A. van Roij, and Gerard Meijer	
Relativistic electronic dressing in laser-assisted electron-hydrogen elastic collisions (6 pages)	063407
Y. Attaourti, B. Manaut, and A. Makhoute	
Isotopic difference in the heteronuclear loss rate in a two-species surface trap (4 pages)	063408
M. E. Holmes, M. Tschernack, P. A. Quinto-Su, and N. P. Bigelow	
Semiclassical analysis of long-wavelength multiphoton processes: The Rydberg atom (13 pages)	063409
Luz V. Vela-Arevalo and Ronald F. Fox	
General method for complete population transfer in degenerate systems (9 pages)	063410
Jiangbin Gong and Stuart A. Rice	
Relativistic electronic dressing in laser-assisted ionization of atomic hydrogen by electron impact (8 pages)	063411
Y. Attaourti and S. Taj	
Laser-field-induced modifications of electron-transfer processes in ion-atom collisions (7 pages)	063412
Tom Kirchner	
Revivals of coherence in chaotic atom-optics billiards (8 pages)	063413
M. F. Andersen, T. Grünzweig, A. Kaplan, and N. Davidson	
Evaluation of nuclear excitation by electronic transition in ^{235}U plasma at local thermodynamic equilibrium (14 pages)	063414
P. Morel, V. Méot, G. Gosselin, D. Gogny, and W. Younes	
Asymmetry of above-threshold ionization of metal clusters in two-color laser fields: A time-dependent density-functional study (8 pages)	063415
H. S. Nguyen, A. D. Bandrauk, and C. A. Ullrich	
Intrinsic chirp of attosecond pulses: Single-atom model versus experiment (6 pages)	063416
S. Kazamias and Ph. Balcou	
Matter waves	
Precessional motion of a vortex in a finite-temperature Bose-Einstein condensate (6 pages)	063601
Tomoya Isoshima, Jukka Huhtamäki, and Martti M. Salomaa	
Cold asymmetrical fermion superfluids (12 pages)	063602
Heron Caldas	
Phase separation of atomic Bose-Fermi mixtures in an optical lattice (7 pages)	063603
H. P. Büchler and G. Blatter	

CONTENTS - Continued

PHYSICAL REVIEW A

THIRD SERIES, VOLUME 69, NUMBER 6

JUNE 2004

Magnetic field dependence of the dynamics of ^{87}Rb spin-2 Bose-Einstein condensates (6 pages)	063604
T. Kuwamoto, K. Araki, T. Eno, and T. Hirano	
Dissipationless shock waves in Bose-Einstein condensates with repulsive interaction between atoms (4 pages)	063605
A. M. Kamchatnov, A. Gammal, and R. A. Kraenkel	
Vortex creation in a trapped Bose-Einstein condensate by stimulated Raman adiabatic passage (8 pages)	063606
G. Nandi, R. Walser, and W. P. Schleich	
Effect of soliton and vortex geometry on the transport of Bose-Einstein condensates in optical lattices (6 pages)	063607
R. G. Scott, A. M. Martin, and T. M. Fromhold	
Analytical solutions of the Bogoliubov-de Gennes equations for excitations of a trapped Bose-Einstein-condensed gas (4 pages)	063608
Bambi Hu, Guoxiang Huang, and Yong-li Ma	
Double-layer Bose-Einstein condensates with a large number of vortices (12 pages)	063609
Hui Zhai, Qi Zhou, Rong Lü, and Lee Chang	
Nature of superfluidity in ultracold Fermi gases near Feshbach resonances (4 pages)	063610
Jelena Stajic, J. N. Milstein, Qijin Chen, M. L. Chiofalo, M. J. Holland, and K. Levin	
Decrease in the visibility of the interference fringes in a cold-atom accelerometer (7 pages)	063611
James A. Stickney and Alex A. Zozulya	
Dynamics of the formation of bright solitary waves of Bose-Einstein condensates in optical lattices (8 pages)	063612
L. Plaja and J. San Román	
Stabilization of bright solitons and vortex solitons in a trapless three-dimensional Bose-Einstein condensate by temporal modulation of the scattering length (6 pages)	063613
Sadhan K. Adhikari	
Intensity interferometry with anyons (5 pages)	063614
Thomas D. Gutierrez	
Phase transition of interacting Bose gases in general power-law potentials (10 pages)	063615
O. Zobay, G. Metikas, and G. Alber	
Quantum optics, physics of lasers, nonlinear optics	
Transient behaviors of photon switching by quantum interference (6 pages)	063801
Yong-Fan Chen, Guan-Chi Pan, and Ite A. Yu	
Sub-Doppler and subnatural narrowing of an absorption line induced by interacting dark resonances in a tripod system (5 pages)	063802
C. Goren, A. D. Wilson-Gordon, M. Rosenbluh, and H. Friedmann	
Preparation of multiparty entangled states using pairwise perfectly efficient single-probe photon four-wave mixing (6 pages)	063803
Ying Wu, M. G. Payne, E. W. Hagley, and L. Deng	
Coupled-resonator-induced transparency (6 pages)	063804
David D. Smith, Hongrok Chang, Kirk A. Fuller, A. T. Rosenberger, and Robert W. Boyd	

(Continued)

CONTENTS - Continued

PHYSICAL REVIEW A

THIRD SERIES, VOLUME 69, NUMBER 6

JUNE 2004

Coherent hole burning and Mollow absorption effects in the cycling transition $F_e=0 \leftrightarrow F_g=1$ subject to a magnetic field (6 pages)	063805
Ying Gu, Qingqing Sun, and Qihuang Gong	
Validity of rate equations for Zeeman coherences for analysis of nonlinear interaction of atoms with broadband laser radiation (9 pages)	063806
Kaspars Blushs and Marcis Auzinsh	
Twin polaritons in semiconductor microcavities (12 pages)	063807
J. Ph. Karr, A. Baas, and E. Giacobino	
Large negative and positive delay of optical pulses in coherently prepared dense Rb vapor with buffer gas (5 pages)	063808
Eugeniy E. Mikhailov, Vladimir A. Sautenkov, Irina Novikova, and George R. Welch	
Propagation of two-dimensional pulses in electromagnetically induced transparency media (8 pages)	063809
Per Arve, Peter Jänes, and Lars Thylén	
Single-photon scattering and quantum-state transformations in cavity QED (6 pages)	063810
T. W. Chen, C. K. Law, and P. T. Leung	
Efficiency of tunable band-gap structures for single-photon emission (9 pages)	063811
Ho Trung Dung, Ludwig Knöll, and Dirk-Gunnar Welsch	
Aspects of the dynamics of a two-level atom dispersively coupled to a damped and driven field mode (11 pages)	063812
J. G. Peixoto de Faria and M. C. Nemes	
Effect of a transient light shift on the propagation of an ultrashort pulse in a resonant atomic medium (5 pages)	063813
J. C. Delagnes and M. A. Bouchene	
Photon-exchange effects on photon-pair transmission (5 pages)	063814
K. J. Resch, G. G. Lapaire, J. S. Lundeen, J. E. Sipe, and A. M. Steinberg	
Complete electromagnetically induced transparency in sodium atoms excited by a multimode dye laser (9 pages)	063815
G. Alzetta, S. Gozzini, A. Lucchesini, S. Cartaleva, T. Karaulanov, C. Marinelli, and L. Moi	
Effective photon-photon interaction in a two-dimensional "photon fluid" (20 pages)	063816
R. Y. Chiao, T. H. Hansson, J. M. Leinaas, and S. Viefers	
Quantum-trajectory analysis of an optical Stern-Gerlach experiment (11 pages)	063817
Young-Tak Chough and Kyungwon An	

BRIEF REPORTS

Fundamental concepts

Exchange potential via functional differentiation of the Dirac idempotent density matrix (4 pages)	064101
N. H. March and I. A. Howard	
Analytic representation of the Efimov effect in the helium trimer (4 pages)	064102
Lawrence L. Lohr and S. M. Blinder	
Electron self-energy for higher excited S levels (2 pages)	064103
Ulrich D. Jentschura and Peter J. Mohr	

(Continued)

CONTENTS - Continued

PHYSICAL REVIEW A

THIRD SERIES, VOLUME 69, NUMBER 6

JUNE 2004

Quantum dynamics of magnetic and electric dipoles and the geometric phase (4 pages)	064104
Claudio Furtado and Carlos Alberto de Lima Ribeiro	

Quantum information

Representation of the SO(3) group by a maximally entangled state (4 pages)	064301
W. LiMing, Z. L. Tang, and C. J. Liao	
Scheme for approximate conditional teleportation of an unknown atomic state without the Bell-state measurement (3 pages)	064302
Shi-Biao Zheng	

Atomic and molecular structure and dynamics

Variational calculation for the doubly excited state $(2p^2)^3P^e$ of helium (3 pages)	064501
Tapan K. Mukherjee and Prasanta K. Mukherjee	
Density-functional study of lanthanum, ytterbium, and lutetium dimers (4 pages)	064502
Z. J. Wu, J. S. Shi, S. Y. Zhang, and H. J. Zhang	

Atomic and molecular collisions and interactions

Exact analytical scattering lengths for a class of long-range potentials with r^{-4} asymptotics (4 pages)	064701
Radosław Szmytkowski and Krzysztof Mielewczyk	
Breakup dynamics and isotope effects in D_2H^+ and H_2D^+ dissociative recombination (4 pages)	064702
D. Strasser, L. Lammich, H. Kreckel, M. Lange, S. Krohn, D. Schwalm, A. Wolf, and D. Zajfman	

Atomic and molecular processes in external fields

Ne^+ and Ne^{2+} ion formation in circularly polarized laser fields: Comparison between theory and experiment (2 pages)	065401
Alexey S. Kornev, Elena B. Tulenko, and Boris A. Zon	

Matter waves

Second-harmonic generation of Bogoliubov excitations in a two-component Bose-Einstein condensate (4 pages)	065601
Guoxiang Huang, Xin-qi Li, and Jacob Szeftel	

Quantum optics, physics of lasers, nonlinear optics

Quantum shifts for qubits in heterostructures (4 pages)	065801
M. Al-Amri and M. Babiker	
Spectroscopy in an extremely thin vapor cell: Comparing the cell-length dependence in fluorescence and in absorption techniques (4 pages)	065802
D. Sarkisyan, T. Varzhapetyan, A. Sarkisyan, Yu. Malakyan, A. Papoyan, A. Lezama, D. Bloch, and M. Ducloy	

ERRATA

Publisher's Note: Squeezing in semiconductor microcavities in the strong-coupling regime [Phys. Rev. A 69 , 031802 (2004)] (1 page)	069901(E)
J. Ph. Karr, A. Baas, R. Houdré, and E. Giacobino	

(Continued)

CONTENTS - *Continued*

PHYSICAL REVIEW A

THIRD SERIES, VOLUME 69, NUMBER 6

JUNE 2004

Publisher's Note: Optical bistability in sideband output modes induced by a squeezed vacuum [Phys. Rev. A 69 , 053802 (2004)] (<i>page</i>)	069902(E)
L. P. Maia, G. A. Prata, and S. S. Mizrahi	
Cumulative Author Index	i