

CONTENTS - *Continued*

PHYSICAL REVIEW A

THIRD SERIES, VOLUME 112, NUMBER 3

SEPTEMBER 2025

Controllable single-photon scattering in a Rydberg-atom–waveguide system via van der Waals interactions (<i>9 pages</i>)	033723
Peng-Fei Wang, Lei Huang, Yi-Long-Yue Guo, Jing Wang, Han-Xiao Zhang, Hong Yang, and Dong Yan	
Single-photon routing induced by giant atoms in a synthetic frequency dimension (<i>11 pages</i>)	033724
Ruolin Chai, Guoqing Cai, Qiongtao Xie, Huaizhi Wu, and Yong Li	

ERRATA

Erratum: Linear Gaussian quantum state smoothing: Understanding the optimal unravelings for Alice to estimate Bob’s state [Phys. Rev. A 103 , 012213 (2021)] (<i>1 page</i>)	039901(E)
Kiarn T. Laverick, Areeya Chantasri, and Howard M. Wiseman	
Erratum: Non-Markovian frequency conversion between optical and microwave photons with magnetomechanical transduction [Phys. Rev. A 110 , 043706 (2024)] (<i>1 page</i>)	039902(E)
Jia Tang and Hong-Zhi Shen	
Erratum: Tunable negative permeability in a quantum plasmonic metamaterial [Phys. Rev. A 89 , 013822 (2014)] (<i>1 page</i>)	039903(E)
K. R. McEnery, M. S. Tame, S. A. Maier, and M. S. Kim	
Erratum: Gauge-invariant theory of truncated quantum light-matter interactions in arbitrary media [Phys. Rev. A 107 , 013722 (2023)] (<i>2 pages</i>)	039904(E)
Chris Gustin, Sebastian Franke, and Stephen Hughes	
Erratum: Solid-state ²²⁹ Th nuclear laser with two-photon pumping [Phys. Rev. A 108 , L021502 (2023)] (<i>1 page</i>)	039905(E)
Haowei Xu, Hao Tang, Guoqing Wang, Changhao Li, Boning Li, Paola Cappellaro, and Ju Li	

CONTENTS - *Continued*

PHYSICAL REVIEW A

THIRD SERIES, VOLUME 112, NUMBER 3

SEPTEMBER 2025

Isoenergetic model for optical down-conversion and error-specific limits of the parametric approximation (<i>15 pages</i>)	033706
D. B. Horoshko and V. S. Shchesnovich	
Enantiomer selectivity and energy transfer in imperfect chiral cavities (<i>12 pages</i>)	033707
David Dams and Carsten Rockstuhl	
Time crystals and nonequilibrium dissipative phase transitions mediated by squeezed bath (<i>10 pages</i>)	033708
Zhenghao Zhang, Qingtian Miao, and G. S. Agarwal	
Quantum phase transitions in the multiphoton Jaynes-Cummings-Hubbard model (<i>7 pages</i>)	033709
Hiroo Azuma, William J. Munro, and Kae Nemoto	
Dynamical transition of the generalized Jaynes-Cummings model: Multiparticle and interparticle interaction effects (<i>12 pages</i>)	033710
Wen Liang and Zhenhua Yu	
Enhancement of single-photon purity and brightness via bound states in the continuum (<i>18 pages</i>)	033711
Yating Deng, Yaqi Fan, and Jiahua Li	
Spectral densities of a dispersive dielectric sphere in the modified Langevin noise formalism (<i>13 pages</i>)	033712
Giovanni Miano, Loris Maria Cangemi, and Carlo Forestiere	
Controlling chiral atom-photon bound states and spatial adiabatic passage in a photonic topological cold-atom system (<i>16 pages</i>)	033713
Yi-Xin Wang, Yan Zhang, Xiao Liu, and Jin-Hui Wu	
Two-dimensional platforms for entanglement engineering via nonreciprocal dipole interactions (<i>15 pages</i>)	033714
Wei Fang, Peng-tao Du, Gao-xiang Li, and Yaping Yang	
Path-unbalanced fourth-order interference with the aid of a weak coherent reference (<i>7 pages</i>)	033715
Xuan Tang and Z. Y. Ou	
Photonic spin Hall effect using bilayer graphene in nano-optomechanical cavities (<i>8 pages</i>)	033716
Muqaddar Abbas, Muhammad Awais Altaf, Pei Zhang, and Muhammad Waseem	
Superradiant quantum beats driven by ground-state–Rydberg-state coherences (<i>9 pages</i>)	033717
Z. Wang, B. Yang, P. R. Berman, and A. Kuzmich	
Quantum trajectory method for highly excited environments in non-Markovian open quantum dynamics (<i>12 pages</i>)	033719
Kai Müller and Walter T. Strunz	
Two-qubit entanglement dynamics under strong light-matter coupling near a graphene nanodisk (<i>11 pages</i>)	033720
Nikos Iliopoulos, Ioannis Thanopoulos, Emmanuel Paspalakis, and Vasilios Karanikolas	
<i>Zitterbewegung</i> , momentum, and spin dynamics of electromagnetic waves in a linear dielectric medium (<i>6 pages</i>)	033721
Adam B. Cahaya	
Entanglement, loss, and quantumness: When balanced beam splitters are best (<i>12 pages</i>)	033722
Noah Lupu-Gladstein, Anaëlle Hertz, Khabat Heshami, and Aaron Z. Goldberg	

(Continued)

CONTENTS - *Continued*

PHYSICAL REVIEW A

THIRD SERIES, VOLUME 112, NUMBER 3

SEPTEMBER 2025

Nonlocal nonlinear edge states in photonic Floquet lattices with pseudo-spin-orbit coupling (<i>9 pages</i>)	033529
Zhiwei Shi, Yijie Wu, Maowu Zuo, Huanggang Li, Huan Jiang, Xuekai Ma, and Yaohua Deng	
Direct space-time modeling of mechanically dressed dipole-dipole interactions with electromagnetically coupled oscillating dipoles (<i>16 pages</i>)	033530
Yi-Ming Chang, Kamran Akbari, Matthew Filipovich, and Stephen Hughes	
Broadband optical nonreciprocity based on gain saturation in an Er-doped fiber (<i>13 pages</i>)	033531
Yuhong Zou, Fan Lv, Haodong Wu, Jiangshan Tang, Han Zhang, Hui Jing, and Keyu Xia	
Singularity with indeterminate ellipticity and its application in manipulating spin angular momentum (<i>10 pages</i>)	033532
Xu-Zhen Gao, Guo-Dong Tan, Shi-Tong Xu, Mingsheng Niu, Hongzhong Cao, Rende Ma, and Yue Pan	
Quantum heat engine in an optomechanical system with mechanical parametric drive (<i>8 pages</i>)	033533
Zhen-Yang Peng and Ying-Dan Wang	
Impact of excitation mechanism on ellipticity and orientation dependence of solid harmonic yield (<i>10 pages</i>)	033534
Mingying Zhang, Yupeng Zhang, Jinbin Li, Lingyue Hu, Ruofeng Zhong, Shengjun Yue, and Hongchuan Du	
Experimental observation of self-frequency-shifting Raman quasisolitons in fiber Fabry-Perot resonators (<i>9 pages</i>)	033535
Thomas Bunel, Matteo Conforti, and Arnaud Mussot	
Controllable temporal dynamics of partially coherent pulses in nonlinear dispersive media (<i>6 pages</i>)	033536
Qian Chen, Yanlin Bai, Xiaohan Wang, Peipei Peng, Jingsong Liu, Yangjian Cai, and Chunhao Liang	
Optical microcavity characterization via resonance spectra and modes (<i>21 pages</i>)	033537
Jonah Post, Chunjiang He, Corn�� Koks, Rudi van Velzen, Andrea Corazza, Yannik L. Fontana, Marcel Erbe, Richard J. Warburton, and Martin P. van Exter	
Localized Floquet modes in arrays of out-of-phase curved waveguides with a quasiperiodic modulation (<i>8 pages</i>)	033538
Yaroslav V. Kartashov and Dmitry A. Zezyulin	
Quantum optics	
Four types of non-Gaussian squeezed states and their entanglement properties (<i>8 pages</i>)	033701
Da Zhang, Yu Zhang, and Juan Gao	
Emergent broadband polarization entanglement from electronic and phononic Stokes–anti-Stokes indistinguishability (<i>10 pages</i>)	033702
Diego Sier, Lucas Valente, Tiago A. Freitas, Marcelo F. Santos, Carlos H. Monken, Raul Corr��a, and Ado Jorio	
Phase-controlled single-photon scattering in a giant-molecule waveguide-QED system (<i>10 pages</i>)	033703
Jia-Ao Sun, Yong Wang, and Wen-An Li	
Interferometric detection of continuous-variable entanglement using two states (<i>11 pages</i>)	033704
Elena Callus, Martin G��rtner, and Tobias Haas	
Nonlinear-linear duality for multipath quantum interference (<i>14 pages</i>)	033705
Yi Zheng, Jin-Shi Xu, Chuan-Feng Li, and Guang-Can Guo	

(Continued)

CONTENTS - *Continued*

PHYSICAL REVIEW A

THIRD SERIES, VOLUME 112, NUMBER 3

SEPTEMBER 2025

Self-reconstruction properties of partially coherent pulses in nonlinear Kerr media (7 pages)	033513
Yanlin Bai, Qian Chen, Tianyu Cao, Jingsong Liu, Xin Liu, Chunhao Liang, Yangjian Cai, and Xiaofeng Peng	
Transformation of topological optical states via spiral modulation in fractional-diffraction systems (10 pages)	033514
Dongdong Wang, Xueqing He, Rujiang Li, Dumitru Mihalache, Boris A. Malomed, and Pengfei Li	
Non-Abelian braiding of coupled modes in photonic waveguides (7 pages)	033515
Zhong-Lei Shan and Xu-Lin Zhang	
Tunable rotation dynamics in bilayer optical matter motors via distance-modulated interlayer coupling (12 pages)	033516
Zhenyu Han, Xiao Li, Yaxin Li, Xiaoxuan Shi, Tiantao Qu, Lei Zhang, and Jun Chen	
Splitting and merging of bound states in the continuum through defect engineering (9 pages)	033517
Ke Xu, Miao Liu, Hao Ren, Xuesong Deng, Jian Feng, Ming Fang, and Zhixiang Huang	
Enhanced high-sensitivity mass sensor in a gain-cavity-assisted optomechanical system (9 pages)	033518
Zhong Ding, Lu-Lu Wang, and Yong Zhang	
Comparative study of focusing with scalar and vector beams in an active Raman gain system (11 pages)	033519
Partha Das and Tarak Nath Dey	
Goos-Hänchen shift and slow-light enhancement in a fixed cavity: Bose-Einstein condensate Bogoliubov modes as mechanical oscillators (19 pages)	033520
Ghaisud Din, Muqaddar Abbas, Fazal Badshah, Yunlong Wang, Feiran Wang, and Pei Zhang	
SU(2) symmetry of spatiotemporal Gaussian modes propagating in isotropic dispersive media (9 pages)	033521
Fangqing Tang, Xing Xiao, and Lixiang Chen	
Spatially modulated atomic ensemble for real-space band braiding (12 pages)	033522
Ying Zhang, Lifeng Liu, Tianze Sheng, Yueping Niu, and Shangqing Gong	
Multiple-order differential imaging based on two types of topological singularity in one-dimensional photonic crystals (15 pages)	033523
Haoran Zhang, Yufu Liu, Yunlin Li, and Xunya Jiang	
Conservation of optical chirality in nanoscale light-matter interactions: A study of the Born-Kuhn model system (19 pages)	033524
Kevin N. Moser, Marc R. Bourgeois, Elliot K. Beutler, and David J. Masiello	
Superdirectional scattering enabled by degenerate ϵ -near-zero electric resonances (11 pages)	033525
Yan Li, Tian Yang, Shuaifu Zhao, Facheng Zhong, Qi Liu, Meng Li, Li Shao, Zhanjun Yu, and Yinxiao Du	
Fast and accurate modeling of Kerr-Brillouin combs in Fabry-Perot resonators (10 pages)	033526
Matteo Conforti, Thomas Bunel, Auro M. Perego, and Arnaud Mussot	
Long-range optical pulling enabled by longitudinal chirality gradients (14 pages)	033527
Wenhao Miao, Li Long, Fei Zhang, Mingbo Pu, Anbin Du, Tongtong Kang, Ruoqin Zhang, Mingfeng Xu, Yinghui Guo, Din Ping Tsai, and Xiangang Luo	
Exceptional-point-controlled mode interaction in three-dimensional microcavities represented by generalized Husimi functions (16 pages)	033528
Tom Simon Rodemund, Shilong Li, Sifei Nic Chormaic, and Martina Hentschel	

(Continued)

Quench spectroscopy for dissipative and non-Hermitian quantum lattice models (<i>20 pages</i>)	033320
Julien Despres	
Vortices in D -dimensional anisotropic Bose-Einstein condensates: Dimensional perturbation theory with hypercylindrical symmetry (<i>10 pages</i>)	033321
Maria Isabelle Fite and B. A. McKinney	
Interaction-induced reentrance of Bose glass and quench dynamics of Bose gases in twisted bilayer and quasicrystal optical lattices (<i>10 pages</i>)	033322
Shi-Hao Ding, Li-Jun Lang, Qizhong Zhu, and Liang He	
Photonics, nonlinear optics, and optomechanics	
Phase transition between linear and nonlinear motion in a quadrupole-trap-based levitodynamic system with massive particles (<i>12 pages</i>)	033501
Vadim Rybin, Maxim Semynin, Semyon Rudyi, Andrei Ivanov, and Dmitrii Shcherbinin	
Propagation and stability of laser pulses in the atmosphere (<i>11 pages</i>)	033502
Gavin Blair, Bahman Hafizi, and Phillip Sprangle	
Spatial extra-bunching effect in classical light (<i>10 pages</i>)	033503
Chen-Xin Ding, Run-Jie He, Zhiyuan Ye, Xue-Jiao Men, Wanting Hou, Yi Cui, Hong-Chao Liu, Hai-Bo Wang, and Jun Xiong	
Light amplification by active metamirrors (<i>5 pages</i>)	033504
Ignas Lukosiunas and Kestutis Staliunas	
Extreme events in detuned semiconductor lasers under delayed mutual injection (<i>13 pages</i>)	033505
Shi-Ya Wang and Sze-Chun Chan	
Synthetic-lattice Bloch wave dynamics in a single-mode microwave resonator (<i>10 pages</i>)	033506
F. Ahrens, N. Crescini, A. Irace, G. Rastelli, P. Falferi, A. Giachero, B. Margesin, R. Mezzena, A. Vinante, I. Carusotto, and F. Mantegazzini	
Quantum-optical signatures of solid-state high-harmonic generation driven by squeezed coherent states (<i>8 pages</i>)	033507
Jingze Li, Zijian Lyu, Haodong Liu, and Yunquan Liu	
Complex networks for random lasers and photonic computing (<i>16 pages</i>)	033508
Dmitriy V. Tsarev, Petr V. Zakharenko, and Alexander P. Alodjants	
Chiral metasurfaces using a metamolecular Pancharatnam-Berry phase (<i>8 pages</i>)	033509
Yizhou Zhuo, Yingqiu Zhang, Mengshuang Peng, Linjun Yi, Guohua Qin, and Zhongchao Wei	
Spectral splitting of vector solitons in a birefringence-managed fiber laser (<i>8 pages</i>)	033510
Jia Xue, Yufeng Zhang, Yueqing Du, Chao Zeng, Dong Li, Guanghua Cheng, Jianlin Zhao, and Dong Mao	
Photonic spin splitting with orbital angular momentum pointer states via modified weak measurement (<i>11 pages</i>)	033511
Soumen Mandal, Dinesh Chandra Dey, Anuradha Sett, and Manik Pradhan	
Integrated and tunable microwave-to-optical transduction via magno-optomechanics (<i>12 pages</i>)	033512
Jian-Fei Liu, Zhi-Gang Hu, Yu-Xiang Zhang, and Bei-Bei Li	

(Continued)

CONTENTS - *Continued*

PHYSICAL REVIEW A

THIRD SERIES, VOLUME 112, NUMBER 3

SEPTEMBER 2025

Dynamics of supersolid state: Normal fluid, superfluid, and supersolid velocities (<i>11 pages</i>)	033303
Wayne M. Saslow	
Dynamics of topological defects in a Rashba spin-orbit-coupled Bose-Einstein condensate (<i>8 pages</i>)	033304
Sheng Liu and Yong-Sheng Zhang	
Dynamical crossover of vortex-pair annihilation in two-dimensional quantum turbulence (<i>8 pages</i>)	033305
Toshiaki Kanai and Chuanwei Zhang	
Self-adapted Josephson oscillation of dark-bright solitons under constant forces (<i>10 pages</i>)	033306
Ling-Zheng Meng, Xi-Wang Luo, and Li-Chen Zhao	
Composite-boson-superposition ansatz approach to one-dimensional trapped few-fermion systems (<i>10 pages</i>)	033307
Francisco Figueiredo and Itzhak Roditi	
Equilibrium, relaxation, and fluctuations in homogeneous Bose-Einstein condensates: Linearized classical field analysis (<i>17 pages</i>)	033308
Nils A. Krause and Ashton S. Bradley	
Bose-Einstein condensates in a synthetic magnetic field with tunable orientation (<i>14 pages</i>)	033309
Fengtao Pang, Huaxin He, Yongping Zhang, and Chunlei Qu	
Bridging the classical and quantum regimes in a dissipative Ising chain (<i>7 pages</i>)	033310
Zhenming Zhang, Haowei Li, and Wei Yi	
Dynamics of magnetic evaporative beamline cooling for the preparation of cold atomic beams (<i>26 pages</i>)	033311
A. Ashtari Esfahani <i>et al.</i> (Project 8 Collaboration)	
Rayleigh-Taylor, Kelvin-Helmholtz, and immiscible-to-miscible quenching instabilities in binary Bose-Einstein condensates (<i>23 pages</i>)	033312
R. Kishor Kumar, S. Sabari, Arnaldo Gammal, and Lauro Tomio	
Unit-density SU(3) Fermi-Hubbard model with spin-flavor imbalance (<i>12 pages</i>)	033313
Zewen Zhang, Qinyuan Zheng, Eduardo Ibarra-García-Padilla, Richard T. Scalettar, and Kaden R. A. Hazzard	
Determination of the tilt of Raman lasers using the tilt-scanned fringe for atom gravimeters (<i>7 pages</i>)	033314
Xiaochun Duan, Wenxin Geng, Huaqing Luo, Yaoyao Xu, and Zhongkun Hu	
Confinement-induced unatonic trimer states in mass-imbalanced systems (<i>13 pages</i>)	033315
R. M. Francisco, D. S. Rosa, T. Frederico, G. Krein, and M. T. Yamashita	
Velocity correlations of vortices and rarefaction pulses in compressible planar quantum fluids (<i>12 pages</i>)	033316
Ashton S. Bradley and Nils A. Krause	
Operator-valued-flow-equation approach to the bosonic lattice polaron: Dispersion renormalization beyond the Fröhlich paradigm (<i>15 pages</i>)	033317
Jan-Philipp Christ, Pit Bermes, and Fabian Grusdt	
Supersonic flow past an obstacle in a quasi-two-dimensional Lee-Huang-Yang quantum fluid (<i>8 pages</i>)	033318
G. H. dos Santos, L. F. Calazans de Brito, A. Gammal, and A. M. Kamchatnov	
Exact renormalization relation and binding energies for three identical bosons (<i>7 pages</i>)	033319
Langxuan Chen and Pengfei Zhang	

(Continued)

CONTENTS - *Continued*

PHYSICAL REVIEW A

THIRD SERIES, VOLUME 112, NUMBER 3

SEPTEMBER 2025

Spontaneous Raman scattering out of a metastable atomic qubit (<i>6 pages</i>)	033106
I. D. Moore, A. Quinn, J. O'Reilly, J. Metzner, S. Brudney, G. J. Gregory, D. J. Wineland, and D. T. C. Allcock	
Spontaneous Raman scattering from metastable states of Ba^+ (<i>7 pages</i>)	033107
Timothy J. Burke, Xiaoyang Shi, Jasmine Sinanan-Singh, Isaac L. Chuang, and John Chiaverini	
Generation of ultrarelativistic longitudinally spin-polarized electrons via nonlinear Compton scattering (<i>8 pages</i>)	033108
Dejia Dai, Xiaofei Shen, and Bin Qiao	
Autocorrelation measurement of attosecond pulses based on two-photon double ionization (<i>8 pages</i>)	033109
Fei Li, Kun Zhao, Bingbing Wang, Xin-Kui He, and Zhi-Yi Wei	
Generation of isolated elliptically polarized sub-100-as pulses from Ne atoms in combined chirped fields (<i>12 pages</i>)	033110
Si-Qi Zhang, Bing Zhang, Bo Yan, Xiang-Qian Jiang, Jing Guo, and Xiu-Dong Sun	
Theory of the photoeffect with vortex photoelectrons (<i>20 pages</i>)	033111
Kirill V. Bazarov and Oleg I. Tolstikhin	
Incorporating dephasing effects into simulations of harmonic generation from finite-size topological insulators (<i>12 pages</i>)	033112
Chuan Yu	
Efficiency of double ionization of a three-electron atom in moderate laser-field intensities (<i>12 pages</i>)	033113
Dmitry K. Efimov	
Fast and robust detection of single Rydberg excitations in mesoscopic ensembles (<i>14 pages</i>)	033114
Sven Schmidt, Aaron Thielmann, Thomas Niederprüm, and Herwig Ott	
Spin squeezing via one-axis twisting in a quadrupolar NMR system under relaxation effects (<i>11 pages</i>)	033116
Adriane Consuelo Leal Auccaise and Antonio Sérgio Magalhães de Castro	
Enhancement of superconducting pairing via quantum Lyapunov control (<i>8 pages</i>)	033117
Oleksandr Povitchan, Denys I. Bondar, and Andrii G. Sotnikov	
Carrier-envelope-phase effects in one- and two-photon directional photoionization of nonisotropic atomic states (<i>9 pages</i>)	033118
Juan J. Omiste and Lars Bojer Madsen	
Lateral diffusion in coated vapor cells under light-induced atomic desorption (<i>9 pages</i>)	033119
Xingqing Jin, Shuyuan Chen, Wentian Xiang, Wenlong Lyu, Changping Du, Xiang Peng, and Hong Guo	
Ultracold systems and matter waves	
Light-induced localized vortices in multicomponent Bose-Einstein condensates (<i>12 pages</i>)	033301
Y. Braver, D. Burba, S. S. Nair, G. Žlabys, E. Anisimovas, Th. Busch, and G. Juzeliūnas	
Phase transitions and dynamics of one-dimensional solitons in spin-orbit-coupled Bose-Bose mixtures (<i>11 pages</i>)	033302
Gui-hua Chen, Hongcheng Wang, Boris A. Malomed, Haiming Deng, and Yongyao Li	

(Continued)

CONTENTS - *Continued*

PHYSICAL REVIEW A

THIRD SERIES, VOLUME 112, NUMBER 3

SEPTEMBER 2025

Hyperfine van der Waals repulsion between open-shell polar molecules (<i>10 pages</i>)	032810
Etienne F. Walraven and Tijds Karman	
Fock-space perturbed relativistic coupled-cluster calculations of electric dipole polarizability and nuclear spin-dependent parity nonconservation in Cs (<i>19 pages</i>)	032811
Suraj Pandey, Ravi Kumar, D. Angom, and B. K. Mani	
Hydrogen adsorption and scattering on graphene with electron dynamics: Effects of incident point and kinetic energy (<i>14 pages</i>)	032812
Samuel S. Taylor, Nicholas Skoufis, Hongbo Du, Cody Covington, and Kálmán Varga	
Isotope shift for total electron binding energy of atoms (<i>6 pages</i>)	032813
V. A. Dzuba and V. V. Flambaum	
Superkick effect in vortex scattering: Møller scattering (<i>12 pages</i>)	032814
Shiyu Liu, Bei Liu, Igor P. Ivanov, and Liangliang Ji	
Constrained search in imaginary time (<i>17 pages</i>)	032815
Markus Penz and Robert van Leeuwen	
Theoretical characterization of the barium II and radium II ions (<i>15 pages</i>)	032816
Robin B. Cserveny and Benjamin M. Roberts	
Structure calculations for the low-charged Sn^{2+} ion clock (<i>15 pages</i>)	032817
Hong-Yuan Zheng and Li-Yan Tang	
QED effects in quadratic Zeeman splitting in highly charged hydrogen-like ions (<i>15 pages</i>)	032818
V. A. Agababaev, E. A. Prokhorchuk, D. A. Glazov, A. V. Malyshev, V. M. Shabaev, and A. V. Volotka	
Extended locally monochromatic approximations of strong-field QED processes (<i>16 pages</i>)	032819
Nikita Larin and Daniel Seipt	
Light-induced processes in atomic-scale systems	
☞ Towards trapping of hydrogen atoms for computable optical clock applications (<i>25 pages</i>)	033101
O. Amit, D. Taray, V. Wirthl, V. Weis, M. W. Syed, A. Ozawa, J. Weitenberg, S. G. Karshenboim, J. T. M. Walraven, L. Maisenbacher, R. Pohl, Z. Burkley, F. Schmid, T. W. Hänsch, D. C. Yost, and Th. Udem	
Continuous pump-probe experiment to observe Zeeman wave-packet dynamics (<i>6 pages</i>)	033102
K. L. Romans, K. Foster, S. Majumdar, B. P. Acharya, O. Russ, A. H. N. C. De Silva, and D. Fischer	
☞ Orbital distortion and parabolic channel effects transforming minima in molecular ionization probabilities into maxima (<i>18 pages</i>)	033103
Imam S. Wahyutama, Denawakage D. Jayasinghe, François Mauger, Kenneth Lopata, and Kenneth J. Schafer	
☞ Robust strong-field theory model for ultrafast electron transport through metal-insulator-metal tunneling nanojunctions (<i>20 pages</i>)	033104
Boyang Ma and Michael Krüger	
Determining ion Coulomb crystal temperatures with ConvNeXt and a vision transformer (<i>12 pages</i>)	033105
Chu Zhang, Dawei Liu, Mingqing Song, Ying Jiang, Dongdong Zhang, and Dajun Ding	

(Continued)

Variational quantum subspace construction via symmetry-preserving cost functions (<i>15 pages</i>)	032623
Hamzat A. Akande, Alexandre Perrin, Bruno Senjean, and Matthieu Saubanère	
Probabilistic pulse-position modulation for classical communication on quantum channels (<i>7 pages</i>)	032624
Farzad Kianvash and Matteo Rosati	
Experimental realization of remote two-qubit state preparation using single-particle operations (<i>6 pages</i>)	032625
Ziyang Ou, Qiao Xu, and Xiaoqi Zhou	
Upgrading quantum metrology by combined sensitivity resources in mixed linear-nonlinear light-matter interactions with bias field (<i>15 pages</i>)	032626
Zu-Jian Ying	
Dynamics and computation in linear open quantum walks (<i>13 pages</i>)	032627
Pedro Linck Maciel and Nadja K. Bernardes	

PART B

Atomic and molecular structure and dynamics; high-precision experiments

Rovibrational spectroscopy of state-selected HD ⁺ ions through spatially resolved fluorescence collection (<i>7 pages</i>)	032801
Qian-Yu Zhang, Wen-Li Bai, Zhi-Yuan Ao, Wen-Cui Peng, Sheng-Guo He, and Xin Tong	
Three-body fragmentation dynamics of C ₅ H ₅ N ³⁺ produced by 200-eV electron-impact triple ionization (<i>8 pages</i>)	032802
Xintai Hao, Menhao Yang, Jiaqi Zhou, Xiaorui Xue, Qibo Ma, Lei Wang, Peng Li, and Xueguang Ren	
Multiply differential study of detachment with simultaneous target excitation in anion-atom collisions (<i>7 pages</i>)	032803
M. Schulz, F. Herrmann, W. Zhang, D. V. Chicharro, A. Dorn, M. Grieser, F. Grussie, H. Kreckel, O. Novotny, F. Trost, A. Wolf, T. Pfeifer, C. D. Schröter, and R. Moshhammer	
Velocity-map imaging and mechanisms of dissociative electron attachment to CH ₃ I (<i>9 pages</i>)	032804
Samrat Saha, Soumya Ghosh, Jaroslav Kočíšek, Roman Čurík, Dhananjay Nandi, Juraj Fedor, and Pamir Nag	
Transcorrelated theory for transition-metal atoms (<i>12 pages</i>)	032805
Kristoffer Simula, Maria-Andreea Filip, and Ali Alavi	
Coupled-channel calculations of fully differential cross sections for ionization in 75-keV <i>p</i> + He collisions (<i>13 pages</i>)	032806
K. H. Spicer, N. W. Antonio, M. S. Schöffler, M. Schulz, and A. S. Kadyrov	
 Precision spectroscopy of the fine structure in the <i>a</i> ³ Σ _u ⁺ (<i>v</i> = 0) and <i>c</i> ³ Σ _g ⁺ (<i>v</i> = 4) states of the helium dimer (<i>15 pages</i>)	032807
V. Wirth, M. Holdener, and F. Merkt	
Landé <i>g</i> -factor measurements for the 5 <i>d</i> 6 <i>s</i> ³ <i>D</i> ₂ hyperfine levels of ¹⁷⁶ Lu ⁺ (<i>6 pages</i>)	032808
Qi Zhao, M. D. K. Lee, Qin Qichen, Zhao Zhang, N. Jayjong, K. J. Arnold, and M. D. Barrett	
Single-photon ionization of aligned diatomic molecules in near-circular laser fields with lower photon energy (<i>12 pages</i>)	032809
Z. Y. Chen, S. Q. Shen, M. Q. Liu, J. Y. Che, and Y. J. Chen	

(Continued)

CONTENTS - *Continued*

PHYSICAL REVIEW A

THIRD SERIES, VOLUME 112, NUMBER 3

SEPTEMBER 2025

Over-rotation coherent error induced by pseudotwirling of quantum gates (<i>8 pages</i>)	032607
Tanmoy Pandit and Raam Uzdin	
Generation of counterpropagating photon pairs in periodically poled Rb-KTiOPO ₄ (<i>5 pages</i>)	032608
Albert Peralta Amores, Andrius Zukauskas, Patrick Mutter, Fredrik Laurell, Valdas Pasiskevicius, and Marcin Swillo	
Superresolution of unequal-brightness thermal sources for stellar interferometry (<i>11 pages</i>)	032609
Chenyu Hu, Ben Wang, Jiandong Zhang, Kunxu Wang, Huigen Liu, Jilin Zhou, and Lijian Zhang	
Quantum simulation of dynamical response functions of equilibrium states (<i>10 pages</i>)	032610
Esther Cruz, Dominik S. Wild, Mari Carmen Bañuls, and J. Ignacio Cirac	
Scalable universal quantum gates between nitrogen-vacancy centers in levitated nanodiamond arrays (<i>9 pages</i>) . . .	032611
Guangyu Zhang, Huaijin Zhang, and Zhang-Qi Yin	
Quantum-enhanced sensing of bosonic modes with cat states (<i>6 pages</i>)	032612
Xiao-Wei Zheng, Jun-Cong Zheng, Xue-Feng Pan, and Pengbo Li	
Optimization of two-qubit gates in tunable-coupler architectures using single-flux-quantum control (<i>8 pages</i>) . . .	032613
Boyan Torosov, Bohdan Kulchytskyy, Florian Hopfmueller, John Gunderson, Xiangzhou Kong, and Pooya Ronagh	
Speeding up dissipation-based quantum state engineering with Lyapunov control (<i>13 pages</i>)	032614
Du Ran, Qin Xie, Bai-Yun Zhang, Zhuo-Qing Zhang, Shuai Liu, Ze-Long He, Ya-dong Li, and Sui-Hu Dang	
Superadditivity of quantum capacity in simple channels (<i>11 pages</i>)	032615
Zhen Wu, Qi Zhao, and Zhihao Ma	
Understanding the physics of D-Wave annealers: From Schrödinger to Lindblad to Markovian dynamics (<i>14 pages</i>)	032616
Vrinda Mehta, Hans De Raedt, Kristel Michielsen, and Fengping Jin	
Measurement-based simulation of geometric gates in topological qubits on noisy intermediate-scale quantum devices (<i>11 pages</i>)	032617
Matthew Brooks, Foster Sabatino, Charles Tahan, and Silas Hoffman	
Teleportation fidelity of quantum repeater networks (<i>8 pages</i>)	032618
Ganesh Mylavarapu, Subrata Ghosh, Chittaranjan Hens, Indranil Chakrabarty, and Subhadip Mitra	
Local fermion-to-qudit mappings: A practical recipe for four-level systems (<i>14 pages</i>)	032619
Rodolfo Carobene, Andrea Giachero, Stefano Barison, and Jannes Nys	
Impact of polarization mode dispersion on entangled photon distribution (<i>8 pages</i>)	032620
Vadim Rodimin, Konstantin Kravtsov, Rui Ming Chua, Gianluca De Santis, Aleksei Ponasenko, Yury Kurochkin, Alexander Ling, and James A. Grieve	
iSWAP gate with polar molecules: Robustness criteria for entangling operations (<i>22 pages</i>)	032621
Matteo Bergonzoni, Sven Jandura, and Guido Pupillo	
Mitigating multiple frequency-dependent errors in superconducting quantum chips using message-passing neural networks (<i>13 pages</i>)	032622
Hao Ai, Guo-Zheng Zhu, and Yu-xi Liu	

(Continued)

Witnessing the dynamics of entanglement and manipulating the sudden death of entanglement under the influence of a squeezed thermal reservoir (<i>14 pages</i>)	032432
M. Hunza, Ming-Da Huang, Qi Qin, and T. Abbas	
All multipartite entanglements are quantum coherences in locally distinguishable bases (<i>9 pages</i>)	032433
Ahana Ghoshal, Swati Choudhary, and Ujjwal Sen	
Bosonic quantum error correction using squeezed Fock states (<i>13 pages</i>)	032434
E. N. Bashmakova, S. B. Korolev, and T. Yu. Golubeva	
Qudit vs. qubit: Simulated performance of error-correction codes in higher dimensions (<i>13 pages</i>)	032435
James Keppens, Quinten Eggerickx, Vukan Levajac, George Simion, and Bart Sorée	
Distillation of multipartite entangled states for arbitrary subsets of parties in noisy quantum networks of increasing size (<i>10 pages</i>)	032436
Aitor Balmaseda and Julio I. de Vicente	
Quantifying nonclassicality via metric-adjusted skew information (<i>13 pages</i>)	032437
Liang Tang and Fan Wu	
Nonsymmetric Greenberger-Horne-Zeilinger states: Weighted hypergraph and controlled-unitary graph representations (<i>13 pages</i>)	032438
Hrachya Zakaryan, Konstantinos-Rafail Revis, and Zahra Raissi	
Saturation of the quantum Cramér-Rao bound for distributed sensing via error sensitivity in $SU(1,1)$ - $SU(m)$ interferometry (<i>9 pages</i>)	032439
Girish S. Agarwal	
Quantum-resource-theoretical analysis of the role of vibrational structure in photoisomerization (<i>11 pages</i>)	032440
Siddharth Tiwary, Giovanni Spaventa, Susana F. Huelga, and Martin B. Plenio	
Single-photon-triggered quantum entanglement between two qubits or at least 2,000 identical qubits (<i>22 pages</i>)	032441
Wangjun Lu, Cuilu Zhai, Hong Tao, Yaju Song, Jibing Yuan, Lan Xu, Jintao Tan, and Shiqing Tang	
Quantum technologies	
Statistical analysis of multipath entanglement purification in quantum networks (<i>18 pages</i>)	032601
Rajni Bala, Md Sohel Mondal, and Siddhartha Santra	
Quantum detection of millimeter wave electric fields with driving surface-state electrons (<i>15 pages</i>)	032602
Miao Zhang, Y. F. Wang, X. Y. Peng, X. N. Feng, S. R. He, Y. F. Li, and L. F. Wei	
Verifiable blind quantum computation for two types of clients via iterated gate teleportation (<i>11 pages</i>)	032603
Yuxun Wang, Qunfeng Dai, and Qin Li	
Quantum-enhanced change detection and joint communication detection (<i>8 pages</i>)	032604
Zihao Gong and Saikat Guha	
Universal quantum control by non-Hermitian Hamiltonian (<i>12 pages</i>)	032605
Zhu-yao Jin and Jun Jing	
Minimally universal parity quantum computing (<i>21 pages</i>)	032606
Isaac D. Smith, Berend Klaver, Hendrik Poulsen Nautrup, Wolfgang Lechner, and Hans J. Briegel	

(Continued)

CONTENTS - *Continued*

PHYSICAL REVIEW A

THIRD SERIES, VOLUME 112, NUMBER 3

SEPTEMBER 2025

Phase transitions, symmetries, and tunneling in Kerr parametric oscillators (<i>17 pages</i>)	032415
Miguel A. Prado Reynoso, Edson M. Signor, Jamil Khalouf-Rivera, Alexandre D. Ribeiro, Francisco Pérez-Bernal, and Lea F. Santos	
Achieving the Heisenberg limit of metrology via measurement on an ancillary qubit (<i>12 pages</i>)	032416
Peng Chen and Jun Jing	
Regularizing quantum loss landscapes by noise injection (<i>9 pages</i>)	032417
Daniil S. Bagaev, Maxim A. Gavreev, Alena S. Mastiukova, Aleksey K. Fedorov, and Nikita A. Nemkov	
Subuniversal variational circuits for combinatorial optimization problems (<i>10 pages</i>)	032418
Gal Weitz, Lirandë Pira, Chris Ferrie, and Joshua Combes	
High-rate extended binomial codes for multiqubit encoding (<i>8 pages</i>)	032419
En-Jui Chang	
Extremality of stabilizer states (<i>7 pages</i>)	032420
Kaifeng Bu	
Stabilizer configuration interaction: Finding molecular subspaces with error detection properties (<i>12 pages</i>)	032421
Abhinav Anand and Kenneth R. Brown	
Time-optimal control based on path distance (<i>8 pages</i>)	032422
Lin-Feng Du, Li-Guo Qin, Qin Guo, Xue-Xiang Xu, and Jie-Hui Huang	
Encoding quantumlike information in classical synchronizing dynamics (<i>12 pages</i>)	032423
Graziano Amati and Gregory D. Scholes	
Multipartite entanglement measures based on the thermodynamic framework (<i>12 pages</i>)	032424
Chen-Ming Bai and Yu Luo	
Exploring nonmultiplicativity in the geometric measure of entanglement (<i>7 pages</i>)	032425
Daniel Dilley, Jerry Chang, Jeffrey Larson, and Eric Chitambar	
Global locations of Schmidt-number witnesses (<i>8 pages</i>)	032426
Kyung Hoon Han and Seung-Hyeok Kye	
Efficient sampling for Pauli-measurement-based shadow tomography in direct fidelity estimation (<i>13 pages</i>)	032427
Hyunho Cha and Jungwoo Lee	
Dynamical decoupling protection for three-level systems (<i>7 pages</i>)	032428
P. Z. Zhao and Lei Qiao	
Long-distance device-independent conference key agreement (<i>9 pages</i>)	032429
Makoto Ishihara, Anders J. E. Bjerrum, Wojciech Roga, Jonatan B. Brask, Ulrik L. Andersen, and Masahiro Takeoka	
Improved entanglement entropy estimates from filtered bitstring probabilities (<i>10 pages</i>)	032430
Avi Kaufman, James Corona, Zane Ozzello, Blake Senseman, Muhammad Asaduzzaman, and Yannick Meurice	
Quantum curriculum learning (<i>14 pages</i>)	032431
Quoc Hoan Tran, Yasuhiro Endo, and Hirotaka Oshima	

(Continued)

Theory of tunneling splitting in symmetric double well systems: Equivalence of the two-state approximation and the Herring formula (<i>8 pages</i>)	032225
Eli Pollak and Michele Ceotto	
Quantum Stirling heat engine based on two-qubit quantum Rabi model with spin-spin coupling (<i>13 pages</i>)	032226
Luxin Xu, Chunfeng Wu, and Changliang Ren	
Quantum information science	
Network nonlocality without entanglement of all sources (<i>21 pages</i>)	032401
Kaushiki Mukherjee and Biswajit Paul	
Multipartite continuous-variable quantum nondemolition interaction and entanglement certification and monitoring (<i>14 pages</i>)	032402
Vinícius V. Seco and Alencar J. de Faria	
Decoherence mitigation for geometric quantum computation (<i>8 pages</i>)	032403
X. Y. Sun and P. Z. Zhao	
Self-testing of the m -partite Greenberger-Horne-Zeilinger state and observables using the Svetlichny inequality (<i>30 pages</i>)	032404
Ritesh K. Singh, Souradeep Sasmal, and A. K. Pan	
Continuous majorization in quantum phase space for Wigner-positive states and proposals for Wigner-negative states (<i>30 pages</i>)	032405
Jan de Boer, Giuseppe Di Giulio, Esko Keski-Vakkuri, and Erik Tonni	
Characterizing Gaussian quantum processes with Gaussian resources (<i>8 pages</i>)	032406
Logan W. Grove, Pratik J. Barge, and Kevin Valson Jacob	
Scalability challenges in variational quantum optimization under stochastic noise (<i>23 pages</i>)	032407
Adelina Bärligea, Benedikt Poggel, and Jeanette Miriam Lorenz	
Passive leakage removal unit based on a disordered transmon array (<i>23 pages</i>)	032408
Gonzalo Martín-Vázquez, Taneli Tolppanen, and Matti Silveri	
Bogoliubov-Born-Green-Kirkwood-Yvon hierarchy for quantum error mitigation (<i>10 pages</i>)	032409
Theo Saporiti, Oleg Kaikov, Vasily Sazonov, and Mohamed Tamaazousti	
Quantum algorithm for vector set orthogonal normalization and matrix QR decomposition with polynomial speedup (<i>22 pages</i>)	032410
Zi-Ming Li and Yu-xi Liu	
Quantum noise spectroscopy by qudit spectators (<i>41 pages</i>)	032411
Clara Javaherian and Chris Ferrie	
Recycling reflections for perfect photon capture (<i>7 pages</i>)	032412
Yat Wong and Liang Jiang	
Entanglement, steering, and separability in Compton-scattered annihilation photons (<i>9 pages</i>)	032413
Peter Caradonna and Kenji Shimazoe	
Improving quantum channel discrimination with resourceful states (<i>12 pages</i>)	032414
Kenji Nakahira	

(Continued)

CONTENTS - Continued

PHYSICAL REVIEW A

THIRD SERIES, VOLUME 112, NUMBER 3

SEPTEMBER 2025

Retrodiction of measurement outcomes on a single quantum system revealing entanglement with its environment (<i>12 pages</i>)	032208
Julien Pinske and Klaus Mølmer	
Ergotropic Mpemba effect in non-Markovian quantum systems (<i>15 pages</i>)	032209
Yan Li, Wenlin Li, and Xingli Li	
Characterizing quantum measurement through environmental stochastic entropy production in a two-spin-1/2 system (<i>16 pages</i>)	032210
Sophia M. Walls, Adam Bloss, and Ian J. Ford	
Symplectic structures in quantum entanglement (<i>7 pages</i>)	032211
Piotr Dulian and Adam Sawicki	
Unpolarized prethermal discrete time crystal (<i>13 pages</i>)	032212
Takeru Yokota and Tatsuhiko N. Ikeda	
Reviving coherence and time crystals with nonreciprocal coupling (<i>9 pages</i>)	032213
K. Karthiga, D. V. Senthilkumar, and V. K. Chandrasekar	
Conserved operators and exact conditions for pair condensation (<i>16 pages</i>)	032214
Federico Petrovich and R. Rossignoli	
Optimizing the incident electron momentum for resonant few-photon Kapitza-Dirac scattering in bichromatic laser fields (<i>14 pages</i>)	032215
Ingo Elsner and Carsten Müller	
Spin textures in curved paths on a curved surface (<i>9 pages</i>)	032216
Guo-Hua Liang, Ai-Guo Mei, Zhi-Hui Yang, and Ze-Lin Wei	
 Bounding the sample fluctuation for pure-state certification with local random measurement (<i>9 pages</i>)	032217
Langxuan Chen and Pengfei Zhang	
Space-time-symmetric nonrelativistic quantum mechanics in 3+1 dimensions: Time and position of arrival from complementary wave functions (<i>11 pages</i>)	032218
Eduardo O. Dias	
Interplay between defects and the non-Hermitian skin effect (<i>9 pages</i>)	032219
Yin Huang, Wenna Zhang, Yu Zhou, Yuecheng Shen, Georgios Veronis, and Wenchen Luo	
Constructing the nonclassical lifetime distribution of two-level systems via quantum reliability (<i>10 pages</i>)	032220
Yaotian Li, Y.-M. Du, Wenkui Ding, Zhaoyu Fei, Libin Fu, and Xiaoguang Wang	
Coherence-assisted entanglement activation during open evolution (<i>8 pages</i>)	032222
Masaya Takahashi and Jarosław K. Korbicz	
Searching for Bloch wave packets with almost definite momentum direction (<i>11 pages</i>)	032223
Arseni Goussev and Gregory V. Morozov	
Exact WKB analysis for dynamical and geometric exponents in generalized and nonlinear Landau-Zener transitions (<i>14 pages</i>)	032224
Tomohiro Matsuda	

(Continued)

Atomic and molecular structure and dynamics; high-precision experiments

- Precision comagnetometry for T -violation searches in crystals (*6 pages*) L030801
 Bassam Nima, Mingyu Fan, Aleksandar Radak, Andrew M. Jayich, and Amar Vutha
- Hyperfine structure and K doubling in the RaOCH_3 molecule (*5 pages*) L030802
 Alexander Petrov

Light-induced processes in atomic-scale systems

- Modeling the dissociative sequential triple ionization of nitrogen molecules by ultrashort intense infrared laser pulses (*6 pages*) L031101
 Yan-Wen Jia, Hui-Hui Wang, C. H. Yuen, C. D. Lin, and Song-Feng Zhao

Ultracold systems and matter waves

-  Observation of self-oscillating supersonic flow across an acoustic horizon in two dimensions (*6 pages*) L031301
 Hikaru Tamura, Sergei Khlebnikov, Cheng-An Chen, and Chen-Lung Hung
- Multimode feedback cooling of the collective modes of a Bose-Einstein condensate (*6 pages*) L031302
 Ryan J. Thomas, Jordan A. McMahon, Zain Mehdi, Stuart S. Szigeti, Simon A. Haine, Samuel Legge, John D. Close, and Joseph J. Hope

Photonics, nonlinear optics, and optomechanics

- Robust exceptional point chains and chirality switch in a vast optical parameter space (*7 pages*) L031501
 Chang-Hwan Yi, Jung-Wan Ryu, Tom Simon Rodemund, and Martina Hentschel

ARTICLES**Fundamental concepts**

- Quantum information engines: Bounds on performance metrics by measurement time (*13 pages*) 032201
 Henning Kirchberg and Abraham Nitzan
- Robust quantification of spectral transitions in perturbed quantum systems (*15 pages*) 032202
 Zsolt Szabó, Stefan Gehr, Paolo Facchi, Kazuya Yuasa, Daniel Burgarth, and Davide Lonigro
- Proposal for implementing quantum walks on multidimensional networks (*11 pages*) 032203
 Qi-Ping Su, Rui-Qi Shen, Li Yu, Yu Wang, Yi-Hao Kang, Lijiong Shen, Wei Feng, Guo-Qiang Zhang, and Chui-Ping Yang
- Coarse-grained dynamics in quantum many-body systems using the maximum entropy principle (*14 pages*) 032204
 Adán Castillo, Carlos Pineda, Erick Sebastián Navarrete, and David Davalos
- Strongest quantum nonlocality in N -partite systems (*14 pages*) 032205
 Mengying Hu, Ting Gao, and Fengli Yan
- Dissipative qutrit-mediated stable charging (*12 pages*) 032206
 Chen-yi Zhang and Jun Jing
- Vector space constructions of Kochen-Specker sets using Hadamard matrices (*11 pages*) 032207
 Petr Lisoněk and Liam Salt

(Continued)

The Table of Contents is a total listing of Parts A and B.
Part A consists of pages L030201–032627, and Part B pages 032801–039905(E).

PART A

LETTERS

Fundamental concepts

- Metastability-induced solid-state quantum batteries for powering microwave quantum electronics (*7 pages*) L030201
Yuanjin Wang, Hao Wu, and Qing Zhao
- Symmetry-induced failures of tomographic locality: Constructing foil theories by twirling (*6 pages*) L030202
Daniel Centeno, Marco Erba, Thomas D. Galley, David Schmid, John H. Selby, Robert W. Spekkens,
Sina Soltani, Jacopo Surace, Alex Wilce, and Yìlè Yīng
- Retrodictive approach to quantum state smoothing (*6 pages*) L030203
Mingxuan Liu, Valerio Scarani, Alexia Auffèves, and Kiarn T. Laverick

Quantum information science

- Recovering optimal precision in quantum sensing with time domain imperfections (*6 pages*) L030401
Zi-Shen Li, Xinyue Long, Xiaodong Yang, Dawei Lu, and Yuxiang Yang
- Quantum assemblage tomography (*7 pages*) L030402
Luis Villegas-Aguilar, Yuanlong Wang, Alex Pepper, Travis J. Baker, Dominick J. Joch, Sven Rogge,
Geoff J. Pryde, Sergei Slussarenko, Nora Tischler, and Howard M. Wiseman
- Local models and Bell inequalities for the minimal triangle network (*6 pages*) L030403
José Mário da Silva, Alejandro Pozas-Kerstjens, and Fernando Parisio

Quantum technologies

- Generation of entanglement and nonstationary states via competing coherent and incoherent bosonic hopping (*7 pages*) L030601
Parvinder Solanki, Albert Cabot, Matteo Brunelli, Federico Carollo, Christoph Bruder, and Igor Lesanovsky
- Toward error-free quantum target finding: When sequential detection meets high-dimensional entanglement (*5 pages*) L030602
Armanpreet Pannu, Amr S. Helmy, and Hesham El Gamal
- Quantum sensing of even- versus odd-body interactions (*8 pages*) L030603
Aparajita Bhattacharyya, Debarupa Saha, and Ujjwal Sen



(Continued)



2469-9926(202509)112:3:A;1-S