PHYSICAL REVIEW B™

For editorial and subscription correspondence, please see inside front cover
(ISSN: 2469-9950)

PERIODICALS
Postmaster send address changes to:

APS Subscription Services
P.O. Box 41
Annapolis Junction, MD 20701

THIRD SERIES, VOLUME 109, NUMBER 4 *CONTENTS* **JANUARY 2024-15(II)**

LETTERS

Electronic structure and strongly correlated systems

From edge-state physics to entanglement spectrum: Interactions and impurities in two-dimensional topological insulators *(5 pages)* L041101
Marcela Derli and E. Novais

Braiding topology of symmetry-protected degeneracy points in non-Hermitian systems *(7 pages)* L041102
Jia-Zheng Li, Kai Bai, Cheng Guo, Tian-Rui Liu, Liang Fang, Duanduan Wan, and Meng Xiao

Majorana zero modes in twisted transition metal dichalcogenide homobilayers *(6 pages)* L041103
Xun-Jiang Luo, Wen-Xuan Qiu, and Fengcheng Wu

Universal entanglement signatures of interface conformal field theories *(7 pages)* L041104
Qicheng Tang, Zixia Wei, Yin Tang, Xueda Wen, and W. Zhu

Disentangling the electronic and lattice contributions to the dielectric response of photoexcited bismuth *(7 pages)* L041105
F. Thiemann, G. Sciaini, A. Kassen, T. S. Lott, and M. Horn-von Hoegen

Electrically tuned topology and magnetism in twisted bilayer $MoTe_2$ at $\nu_h = 1$ *(7 pages)* L041106
Bohao Li, Wen-Xuan Qiu, and Fengcheng Wu

Dissipation-driven dynamical topological phase transitions in two-dimensional superconductors *(6 pages)* L041107
Andrea Nava, Carmine Antonio Perroni, Reinhold Egger, Luca Lepori, and Domenico Giuliano

Hyperbolic topological flat bands *(7 pages)* L041109
Hao Yuan, Weixuan Zhang, Qingsong Pei, and Xiangdong Zhang

Low temperature phase transitions inside the CDW phase in the kagome metals AV_3Sb_5 (A = Cs, Rb, K): Significance of mixed-type Fermi surface electron correlations *(6 pages)* L041110
Jianxin Huang, Rina Tazai, Youichi Yamakawa, Seiichiro Onari, and Hiroshi Kontani

Spin-mediated direct photon scattering by plasmons in BiTeI *(6 pages)* L041111
A. C. Lee, S. Sarkar, K. Du, H.-H. Kung, C. J. Won, K. Wang, S.-W. Cheong, S. Maiti, and G. Blumberg

Endowing the Ising superconductor $NbSe_2$ with nontrivial band topology via proximity coupling with the two-dimensional ferromagnet Fe_3GeTe_2 *(8 pages)* L041112
Yutong Yang, Wei Qin, Yanru Chen, Shunhong Zhang, Ping Cui, and Zhenyu Zhang

Charge density wave transition in the magnetic topological semimetal $EuAl_4$ *(8 pages)* L041113
R. Yang, C.-C. Le, P. Zhu, Z.-W. Wang, T. Shang, Y.-M. Dai, J.-P. Hu, and M. Dressel

(Continued)

2469-9950(20240115)109:4;1-9

The editors and referees of PRB find these papers to be of particular interest, importance, or clarity. Please see our Announcement Phys. Rev. B 77, 130001 (2008).

PHYSICAL REVIEW B **THIRD SERIES, VOLUME 109, NUMBER 4** **JANUARY 2024-15(II)**

Collective depinning and sliding of a quantum Wigner solid in a two-dimensional electron system *(5 pages)* L041114
M. Yu. Melnikov, A. A. Shashkin, S.-H. Huang and C. W. Liu, and S. V. Kravchenko

Semiconductors II: surfaces, interfaces, microstructures, and related topics

Quantum-enhanced metrology in cavity magnonics *(8 pages)* L041301
Qing-Kun Wan, Hai-Long Shi, and Xi-Wen Guan

Supercurrent transport through 1e-periodic full-shell Coulomb islands *(6 pages)* L041302
D. Razmadze, R. Seoane Souto, E. C. T. O'Farrell, P. Krogstrup, M. Leijnse, C. M. Marcus, and S. Vaitiekėnas

Theory for Fourier-limited attosecond pulse generation in solids *(8 pages)* L041303
Shohei Imai and Atsushi Ono

Emergence of composite many-body exciton states in WS_2 and $MoSe_2$ monolayers *(7 pages)* L041304
J. Choi, J. Li, D. Van Tuan, H. Dery, and S. A. Crooker

Surface physics, nanoscale physics, low-dimensional systems

Dissipative drift instability of plasmons in a single-layer graphene *(6 pages)* L041401
I. M. Moiseenko, D. V. Fateev, and V. V. Popov

Ultrahigh efficiency plasmonic mode conversion between symmetric and antisymmetric modes in metal slab waveguides by introducing a gyration-managed waveguide link *(6 pages)* L041402
Kum-Song Ho, Ji-Song Pyon, Jin-Song Kim, Song-Jin Im, Kum-Dong Kim, Kil-Song Song, Ji-Song Pae, and Chol-Song Ri

Orbital Chern insulator at $\nu = -2$ in twisted $MoTe_2$ *(5 pages)* L041403
Feng-Ren Fan, Cong Xiao, and Wang Yao

Coexistence of insulating phases in confined fermionic chains with a Wannier-Stark potential *(5 pages)* L041404
N. Aucar Boidi, K. Hallberg, Amnon Aharony, and Ora Entin-Wohlman

Evanescent wave spectral singularities in non-Hermitian photonics *(6 pages)* L041405
Huan He, Zhaoxian Chen, Huanan Li, Cheng-Hou Tu, Jingjun Xu, and Andrea Alù

Long-lived photon echo induced by nuclear spin fluctuations in charged InGaAs quantum dots *(6 pages)* L041406
A. V. Trifonov, I. A. Yugova, A. N. Kosarev, Ya. A. Babenko, A. Ludwig, A. D. Wieck, D. R. Yakovlev, M. Bayer, and I. A. Akimov

Simultaneous measurement of in-plane and interfacial thermal conductivity of isotopically labeled bilayer graphene *(7 pages)* L041407
Yang Zhang, Qiancheng Ren, Jiayuan Fang, Jinglan Liu, Suhao Wang, Jizhou Song, and Pei Zhao

Breakdown of Kubo relation in Pt-Cu nanoparticles *(4 pages)* L041408
Shunsaku Kitagawa, Yudai Kinoshita, Kenji Ishida, Kouhei Kusada, and Hiroshi Kitagawa

Second-order topological superconductor via noncollinear magnetic texture *(8 pages)* L041409
Pritam Chatterjee, Arnob Kumar Ghosh, Ashis K. Nandy, and Arijit Saha

Employing quasidegenerate optical modes for chiral sensing *(6 pages)* L041410
S. F. Almousa, T. Weiss, and E. A. Muljarov

(Continued)

The editors and referees of PRB find these papers to be of particular interest, importance, or clarity. Please see our Announcement Phys. Rev. B 77, 130001 (2008).

PHYSICAL REVIEW B THIRD SERIES, VOLUME 109, NUMBER 4 JANUARY 2024-15(II)

Ultrafast all-electrical universal nanoqubits *(7 pages)* L041411
David T. S. Perkins and Aires Ferreira

ARTICLES

Electronic structure and strongly correlated systems

Stripe order manipulated dominant pairing symmetry in the Hubbard model *(8 pages)* 045101
Chao Chen, Zenghui Fan, Runyu Ma, Yue Pan, Ying Liang, Bing Huang, and Tianxing Ma

Spectral properties of a one-dimensional extended Hubbard model from bosonization and time-dependent variational principle: Applications to one-dimensional cuprates *(8 pages)* 045102
Hao-Xin Wang, Yi-Ming Wu, Yi-Fan Jiang, and Hong Yao

Spectral properties of the critical (1+1)-dimensional Abelian-Higgs model *(11 pages)* 045103
Titas Chanda, Marcello Dalmonte, Maciej Lewenstein, Jakub Zakrzewski, and Luca Tagliacozzo

Breakdown of effective-medium theory in dielectric composites containing epsilon-near-zero constituents *(7 pages)* 045104
Ran Mei, Jin Qin, Dongyang Yan, Yun Lai, and Jie Luo

Pressure-induced flat bands in one-dimensional moiré superlattices of collapsed chiral carbon nanotubes *(7 pages)* 045105
Xianliang Zhou, Yi Chen, Jiajun Chen, Cheng Hu, Bosai Lyu, Kunqi Xu, Shuo Lou, Peiyue Shen, Saiqun Ma, Zhenghan Wu, Yufeng Xie, Zhichun Zhang, Zhiguo Lü, Weidong Luo, Qi Liang, Lede Xian, Guangyu Zhang, and Zhiwen Shi

Magnetic field induces giant nonlinear optical response in Weyl semimetals *(24 pages)* 045106
Grigory Bednik and Vladyslav Kozii

Doping driven metal-insulator transition in disordered graphene *(7 pages)* 045107
Kaiyi Guo, Ying Liang, and Tianxing Ma

Consistency between reflection momentum-resolved electron energy loss spectroscopy and optical spectroscopy measurements of the long-wavelength density response of $Bi_2Sr_2CaCu_2O_{8+x}$ *(9 pages)* 045108
Jin Chen, Xuefei Guo, Christian Boyd, Simon Bettler, Caitlin Kengle, Dipanjan Chaudhuri, Farzaneh Hoveyda, Ali Husain, John Schneeloch, Genda Gu, Philip Phillips, Bruno Uchoa, Tai-Chang Chiang, and Peter Abbamonte

Lower negative bounds on the static electric susceptibility of nonequilibrium cubic crystals *(13 pages)* 045109
R. Dutta, P. D. Wurzner, and F. Castles

Complex semiclassical theory for non-Hermitian quantum systems *(15 pages)* 045110
Guang Yang, Yong-Kang Li, Yongxu Fu, Zhenduo Wang, and Yi Zhang

Doping dependence of chiral superconductivity in near 45° twisted bilayer cuprates *(7 pages)* 045111
Mathieu Bélanger and David Sénéchal

Quantum impurity with $\frac{2}{3}$ local moment in one-dimensional quantum wires: A numerical renormalization group study *(14 pages)* 045112
P. A. Almeida, M. A. Manya, M. S. Figueira, S. E. Ulloa, E. V. Anda, and G. B. Martins

(Continued)

The editors and referees of PRB find these papers to be of particular interest, importance, or clarity. Please see our Announcement Phys. Rev. B 77, 130001 (2008).

PHYSICAL REVIEW B **THIRD SERIES, VOLUME 109, NUMBER 4** **JANUARY 2024-15(II)**

Observation of Dirac nodal line states in topological semimetal candidate PrSbTe *(9 pages)* 045113
Dengpeng Yuan, Dajian Huang, Xin Ma, Xu Chen, Huifen Ren, Yun Zhang, Wei Feng, Xiegang Zhu, Bo Wang, Xuwen He, Jian Wu, Shiyong Tan, Qunqing Hao, Qiang Zhang, Yi Liu, Qin Liu, Zhengtai Liu, Chao Cao, Qiuyun Chen, and Xinchun Lai

Antiferromagnetism driven charge density wave in infinite-layer $NdNiO_2$ nickelates *(5 pages)* 045114
Chen Zhang, Xuefen Cai, Cai-Xin Zhang, Su-Huai Wei, and Hui-Xiong Deng

Accurate determination of low-energy eigenspectra with multitarget matrix product states *(12 pages)* 045115
Xuan Li, Zongsheng Zhou, Guanglei Xu, Runze Chi, Yibin Guo, Tong Liu, Haijun Liao, and Tao Xiang

Theory of cuprate pseudogap as antiferromagnetic order with charged domain walls *(16 pages)* 045116
R. S. Markiewicz and A. Bansil

Nonlocal Kondo coupling and selective doping from cerium f electrons in iron-based superconductors *(17 pages)* 045117
J. Sourd, S. Tencé, E. Gaudin, and S. Burdin

Interacting nodal semimetals with nonlinear bands *(16 pages)* 045118
Arianna Poli, Niklas Wagner, Max Fischer, Alessandro Toschi, Giorgio Sangiovanni, and Sergio Ciuchi

Impact of disorder and phonons on the Hubbard bands of Mott insulators in strong electric fields *(16 pages)* 045119
Tommaso Maria Mazzocchi, Daniel Werner, and Enrico Arrigoni

Collective excitations and screening in two-dimensional tilted nodal-line semimetals *(9 pages)* 045120
Hamid Rahimpoor and Saeed H. Abedinpour

Microscopic model realization of d-wave pseudospin current order in Sr_2IrO_4 *(11 pages)* 045121
Jin-Wei Dong, Yun-Peng Huang, Ziqiang Wang, and Sen Zhou

Emergent non-Hermitian models *(14 pages)* 045122
Lumen Eek, Anouar Moustaj, Malte Röntgen, Vincent Pagneux, Vassos Achilleos, and Cristiane Morais Smith

Definition and classification of Fermi surface anomalies *(19 pages)* 045123
Da-Chuan Lu, Juven Wang, and Yi-Zhuang You

Large intrinsic spin Hall conductivity and anomalous Hall conductivity in monolayer $MnBi_2Te_4$ *(6 pages)* 045124
Lingpu Gong, Yan Li, Huaiqiang Wang, and Haijun Zhang

Cavitation in electron fluids and the puzzles of photoemission spectra in alkali metals *(6 pages)* 045125
Roman Dmitriev, Jenny Green, and Vassiliy Lubchenko

Spin Weyl topological insulators *(12 pages)* 045126
Rafael González-Hernández and Bernardo Uribe

Feshbach resonance in a strongly repulsive ladder of mixed dimensionality: A possible scenario for bilayer nickelate superconductors *(16 pages)* 045127
Hannah Lange, Lukas Homeier, Eugene Demler, Ulrich Schollwöck, Fabian Grusdt, and Annabelle Bohrdt

Interface and thickness effects in $La_{2/3}Sr_{1/3}MnO_3/YBa_2Cu_3O_7$ superlattices *(12 pages)* 045128
V. A. M. Lima, M. C. O. Aguiar, N. C. Plumb, M. Radovic, and W. H. Brito

Tailoring weak and metallic phases in a strong topological insulator by strain and disorder: Conductance fluctuations signatures *(7 pages)* 045129
Mohammad Shafiei, Farhad Fazileh, François M. Peeters, and Milorad V. Milošević

(Continued)

The editors and referees of PRB find these papers to be of particular interest, importance, or clarity. Please see our Announcement Phys. Rev. B 77, 130001 (2008).

PHYSICAL REVIEW B **THIRD SERIES, VOLUME 109, NUMBER 4** **JANUARY 2024-15(II)**

Topological and nontopological degeneracies in generalized string-net models *(25 pages)* 045130
Anna Ritz-Zwilling, Jean-Noël Fuchs, Steven H. Simon, and Julien Vidal

Bulk superconductivity in Pb-substituted BiS_2-based compounds studied by hard x-ray spectroscopy *(8 pages)* . . . 045131
A. Yamasaki, T. Oguni, T. Hayashida, K. Miyazaki, N. Tanaka, K. Nakagawa, K. Tamura, K. Mimura, N. Kawamura, H. Fujiwara, G. Nozue, A. Ose, Y. Kanai-Nakata, A. Higashiya, S. Hamamoto, K. Tamasaku, M. Yabashi, T. Ishikawa, S. Imada, A. Sekiyama, H. Sakata, and S. Demura

Conductance based machine learning of optimal gate voltages for disordered Majorana wires *(14 pages)* 045132
Matthias Thamm and Bernd Rosenow

Accurate and efficient prediction of the band gaps and optical spectra of chalcopyrite semiconductors from a nonempirical range-separated dielectric-dependent hybrid: Comparison with many-body perturbation theory *(13 pages)* 045133
Arghya Ghosh, Subrata Jana, Dimple Rani, Manoar Hossain, Manish K. Niranjan, and Prasanjit Samal

Topological phase transitions captured in the set of reduced density matrices *(8 pages)* 045134
Samuel Warren, LeeAnn M. Sager-Smith, and David A. Mazziotti

Efficient representation of minimally entangled typical thermal states in two dimensions via projected entangled pair states *(13 pages)* 045136
Aritra Sinha, Marek M. Rams, and Jacek Dziarmaga

Charge-density response in layered metals: Retardation effects, generalized plasma waves, and their spectroscopic signatures *(20 pages)* 045137
F. Gabriele, R. Senese, C. Castellani, and L. Benfatto

Robust Majorana bound states in magnetic topological insulator nanoribbons with fragile chiral edge channels *(6 pages)* 045138
Declan Burke, Dennis Heffels, Kristof Moors, Peter Schüffelgen, Detlev Grützmacher, and Malcolm R. Connolly

Eigenstate thermalization and its breakdown in quantum spin chains with inhomogeneous interactions *(13 pages)* 045139
Ding-Zu Wang, Hao Zhu, Jian Cui, Javier Argüello-Luengo, Maciej Lewenstein, Guo-Feng Zhang, Piotr Sierant, and Shi-Ju Ran

Grassmann time-evolving matrix product operators for quantum impurity models *(12 pages)* 045140
Ruofan Chen, Xiansong Xu, and Chu Guo

Improvements to the stochastic series expansion method for the JQ_2 model with a magnetic field *(13 pages)* 045141
Lu Liu

Superstructures and magnetic order in heavily Cu-substituted $(Fe_{1-x}Cu_x)_{1+y}Te$ *(13 pages)* 045142
Saizheng Cao, Xin Ma, Dongsheng Yuan, Zhen Tao, Xiang Chen, Yu He, Patrick N. Valdivia, Shan Wu, Hang Su, Wei Tian, Adam A. Aczel, Yaohua Liu, Xiaoping Wang, Zhijun Xu, Huiqiu Yuan, Edith Bourret-Courchesne, Chao Cao, Xingye Lu, Robert Birgeneau, and Yu Song

Fermi liquids beyond the forward-scattering limit: The role of nonforward scattering for scale invariance and instabilities *(19 pages)* 045143
Han Ma and Sung-Sik Lee

Itinerant ferromagnetism in transition metal dichalcogenide moiré superlattices *(10 pages)* 045144
Pawel Potasz, Nicolás Morales-Durán, Nai Chao Hu, and Allan H. MacDonald

(Continued)

The editors and referees of PRB find these papers to be of particular interest, importance, or clarity. Please see our Announcement Phys. Rev. B 77, 130001 (2008).

PHYSICAL REVIEW B **THIRD SERIES, VOLUME 109, NUMBER 4** **JANUARY 2024-15(II)**

Hilbert space fragmentation imposed real spectrum of non-Hermitian systems *(13 pages)* 045145
Somsubhra Ghosh, K. Sengupta, and Indranil Paul

Clean realization of Hund's physics near the Mott transition: NiS_2 under pressure *(8 pages)* 045146
Ina Park, Bo Gyu Jang, Dong Wook Kim, Ji Hoon Shim, and Gabriel Kotliar

Fractional Chern insulators versus nonmagnetic states in twisted bilayer $MoTe_2$ *(37 pages)* 045147
Jiabin Yu, Jonah Herzog-Arbeitman, Minxuan Wang, Oskar Vafek, B. Andrei Bernevig, and Nicolas Regnault

Origin of the extreme and anisotropic magnetoresistance in the Weyl semimetal NbP *(6 pages)* 045148
F. Balduini, A. Molinari, L. Rocchino, V. Hasse, C. Felser, C. Zota, H. Schmid, and B. Gotsmann

Effect of electron-phonon scattering on the electronic transport of Weyl semimetal WP_2 *(11 pages)* 045149
Kai-Cheng Zhang, Chen Shen, Hong-Bin Zhang, Yong-Feng Li, and Yong Liu

Optically induced umklapp shift currents in striped cuprates *(13 pages)* 045150
Pavel E. Dolgirev, Marios H. Michael, Jonathan B. Curtis, Daniel E. Parker, Daniele Nicoletti, Michele Buzzi, Michael Fechner, Andrea Cavalleri, and Eugene Demler

Electronic structure, magnetic correlations, and superconducting pairing in the reduced Ruddlesden-Popper bilayer $La_3Ni_2O_6$ under pressure: Different role of $d_{3z^2-r^2}$ orbital compared with $La_3Ni_2O_7$ *(10 pages)* 045151
Yang Zhang, Ling-Fang Lin, Adriana Moreo, Thomas A. Maier, and Elbio Dagotto

Solving the Bethe-Salpeter equation in real frequencies at finite temperature *(5 pages)* 045152
I. S. Tupitsyn and N. V. Prokof'ev

Transferable empirical pseudopotenials from machine learning *(10 pages)* 045153
Rokyeon Kim and Young-Woo Son

Pair correlations in the two-orbital Hubbard ladder: Implications for superconductivity in the bilayer nickelate $La_3Ni_2O_7$ *(5 pages)* 045154
Tatsuya Kaneko, Hirofumi Sakakibara, Masayuki Ochi, and Kazuhiko Kuroki

Electrons interacting with Goldstone modes and the rotating frame *(20 pages)* 045155
Konstantinos Vasiliou, Yuchi He, and Nick Bultinck

Semiconductors I: bulk

High-order phonon anharmonicity in Yb-filled skutterudites *(10 pages)* 045201
Hong-Jie Pang, Hao Yu, Wei-Jian Li, Liu-Cheng Chen, Peng-Fei Qiu, Qing Peng, and Xiao-Jia Chen

Theory of excitonic polarons: From models to first-principles calculations *(19 pages)* 045202
Zhenbang Dai, Chao Lian, Jon Lafuente-Bartolome, and Feliciano Giustino

Ideal type-I Weyl phonons in $BAsO_4$ with fewest Weyl points *(6 pages)* 045203
Jian Liu, Xikui Ma, Lei Sun, Zeying Zhang, Yun Ni, Sheng Meng, and Mingwen Zhao

Semiconductors II: surfaces, interfaces, microstructures, and related topics

Spin-polarized transport properties in magnetic moiré superlattices *(7 pages)* 045301
Zhao Gong, Qing-Qing Zhang, Hui-Ying Mu, Xing-Tao An, and Jian-Jun Liu

(Continued)

The editors and referees of PRB find these papers to be of particular interest, importance, or clarity. Please see our Announcement Phys. Rev. B 77, 130001 (2008).

PHYSICAL REVIEW B **THIRD SERIES, VOLUME 109, NUMBER 4** **JANUARY 2024-15(II)**

℘ Microwave spectroscopy of interacting Andreev spins *(13 pages)* 045302
J. J. Wesdorp, F. J. Matute-Cañadas, A. Vaartjes, L. Grünhaupt, T. Laeven, S. Roelofs, L. J. Splitthoff, M. Pita-Vidal, A. Bargerbos, D. J. van Woerkom, P. Krogstrup, L. P. Kouwenhoven, C. K. Andersen, A. Levy Yeyati, B. van Heck, and G. de Lange

Quantum plasmons in double layer systems *(8 pages)* 045303
Luis Brey and H. A. Fertig

Inevitable Si surface passivation prior to III-V/Si epitaxy: Strong impact on wetting properties *(6 pages)* 045304
S. Pallikkara Chandrasekharan, D. Gupta, C. Cornet, and L. Pedesseau

Mechanism of Li^+ charge transfer at $Li/Li_7La_3Zr_2O_{12}$ interfaces: A density functional theory study *(14 pages)* 045305
Arseniy S. Burov, Anton O. Boev, Artem M. Abakumov, and Dmitry A. Aksyonov

℘ Gapless fluctuations and exceptional points in semiconductor lasers *(17 pages)* 045306
N. H. Kwong, M. Em. Spotnitz, and R. Binder

Disorder-induced linear magnetoresistance in $Al_2O_3/SrTiO_3$ heterostructures *(8 pages)* 045307
Kuang Hong Gao, Tie Lin, Xiao Rong Ma, Qiu Lin Li, and Zhi Qing Li

Origin and early growth of entanglement by *sd* exchange with gate voltage controllable outcome *(14 pages)* 045308
Son-Hsien Chen (陳松賢)

Surface physics, nanoscale physics, low-dimensional systems

Anomalous Nernst effect in epitaxial graphene modulated by external fields *(10 pages)* 045401
Xiaogang Zhang, Yafang Xu, and Guojun Jin

Chern, dipole, and quadrupole topological phases of a simple magneto-optical photonic crystal with a square lattice and an unconventional unit cell *(13 pages)* 045402
Zhihao Lan, Yafeng Chen, Liang An, and Zhongqing Su

Armchair edge states in shear-strained graphene: Magnetic properties and quantum valley Hall edge states *(6 pages)* 045403
Ruigang Li, Pei-Hao Fu, Jun-Feng Liu, and Jun Wang

Theoretical determination of the effect of a screening gate on plasmon-induced superconductivity in twisted bilayer graphene *(14 pages)* 045404
Liangtao Peng, Indra Yudhistira, Giovanni Vignale, and Shaffique Adam

Strain, anharmonicity, and finite-size effects on the vibrational properties of linear carbon chains *(7 pages)* 045405
Graziâni Candiotto, Fernanda R. Silva, Deyse G. Costa, and Rodrigo B. Capaz

Interplay between intervalley scattering and impact ionization induced by intense terahertz pulses in InSb thin films *(6 pages)* 045406
C. M. Garcia-Rosas, X. Ropagnol, L. Guiramand, F. Blanchard, and T. Ozaki

Tuning the spectrum of near-field radiative heat transfer using Mie resonance based metamaterials *(10 pages)* 045407
Ramin Pouria and Sheila Edalatpour

Strain-induced topological phase transition in graphene nanoribbons *(8 pages)* 045408
Anhua Huang, Shasha Ke, Ji-Huan Guan, Jun Li, and Wen-Kai Lou

(Continued)

℘ The editors and referees of PRB find these papers to be of particular interest, importance, or clarity. Please see our Announcement Phys. Rev. B 77, 130001 (2008).

PHYSICAL REVIEW B **THIRD SERIES, VOLUME 109, NUMBER 4** **JANUARY 2024-15(II)**

Barrier and finite-size effects on the extension of topological surface states into magnetic insulators *(6 pages)* 045409
Eirik Holm Fyhn, Hendrik Bentmann, and Jacob Linder

Twisted topology of non-Hermitian systems induced by long-range coupling *(11 pages)* 045410
S. M. Rafi-Ul-Islam, Zhuo Bin Siu, Haydar Sahin, Md. Saddam Hossain Razo, and Mansoor B. A. Jalil

Electrical manipulation of valley qubit and valley geometric phase in lateral monolayer heterostructures *(10 pages)* 045411
Jarosław Pawłowski, John Eric Tiessen, Rockwell Dax, and Junxia Shi

Quantum coherent control of linear and nonlinear thermoelectricity in graphene nanostructure heat engines *(8 pages)* 045412
Yuga Kodama and Nobuhiko Taniguchi

Generation of nearly pure and highly directional magnetic light in fluorescence of rare-earth ions *(15 pages)* 045413
Anton D. Utyushev, Roman Gaponenko, Song Sun, Alexey A. Shcherbakov, Alexander Moroz, and Ilia L. Rasskazov

Poles and zeros in non-Hermitian systems: Application to photonics *(6 pages)* 045414
Felix Binkowski, Fridtjof Betz, Rémi Colom, Patrice Genevet, and Sven Burger

Impact of vacancies on twisted bilayer graphene quantum point contacts *(7 pages)* 045415
Pablo Moles, Francisco Domínguez-Adame, and Leonor Chico

Two-step electronic response to magnetic ordering in a van der Waals ferromagnet *(7 pages)* 045416
Han Wu, Jian-Xin Zhu, Lebing Chen, Matthew W. Butcher, Ziqin Yue, Dongsheng Yuan, Yu He, Ji Seop Oh, Bin Gao, Jianwei Huang, Shan Wu, Cheng Gong, Yucheng Guo, Sung-Kwan Mo, Jonathan Denlinger, Donghui Lu, Makoto Hashimoto, Matthew B. Stone, Alexander I. Kolesnikov, Songxue Chi, Junichiro Kono, Andriy H. Nevidomskyy, Robert J. Birgeneau, Pengcheng Dai, and Ming Yi

Microscopic many-body theory of two-dimensional coherent spectroscopy of excitons and trions in atomically thin transition metal dichalcogenides *(10 pages)* 045417
Hui Hu, Jia Wang, and Xia-Ji Liu

Magnetization-induced phase transitions on the surface of three-dimensional topological insulators *(9 pages)* 045418
Yu-Hao Wan and Qing-Feng Sun

Kondo phase in twisted bilayer graphene *(26 pages)* 045419
Geng-Dong Zhou, Yi-Jie Wang, Ninghua Tong, and Zhi-Da Song

Spin-dependent multilevel interactions at a nonmagnetic/magnetic $MoSe_2/VSe_2$ van der Waals interface and multifunctional properties *(13 pages)* 045420
Meng-Xue Ren, Yue-Jiao Zhang, Yu-Meng Gao, Mei-Yan Tian, Chen-Dong Jin, Hu Zhang, Ru-Qian Lian, Peng-Lai Gong, Rui-Ning Wang, Jiang-Long Wang, and Xing-Qiang Shi

Enhancement of high-order harmonic generation in graphene by mid-infrared and terahertz fields *(12 pages)* 045421
Wenwen Mao, Angel Rubio, and Shunsuke A. Sato

Spin character of interlayer excitons in tungsten dichalcogenide heterostructures: GW-BSE calculations *(7 pages)* 045422
Yaning Li, Zhihui Yan, and Shudong Wang

Quadratic nodal point in a two-dimensional noncollinear antiferromagnet *(7 pages)* 045423
Xukun Feng, Zeying Zhang, Weikang Wu, Xian-Lei Sheng, and Shengyuan A. Yang

(Continued)

The editors and referees of PRB find these papers to be of particular interest, importance, or clarity. Please see our Announcement Phys. Rev. B 77, 130001 (2008).

PHYSICAL REVIEW B **THIRD SERIES, VOLUME 109, NUMBER 4** **JANUARY 2024-15(II)**

Anomalous strain-dependent thermal conductivity in the metal-organic framework HKUST-1 *(12 pages)* 045424
Hongzhao Fan, Penghua Ying, Zheyong Fan, Yue Chen, Zhigang Li, and Yanguang Zhou

Analog gravity and continuum effective theory of the graphene tight-binding lattice model *(33 pages)* 045425
Matthew M. Roberts and Toby Wiseman

Optical conductivity of anisotropic Dirac semimetals: The relaxation-time approximation *(12 pages)* 045426
I. Kupčić and J. Kordić

Quasiperiodic gallium adlayer on *i*-Al-Pd-Mn *(12 pages)* 045427
Pramod Bhakuni, Marian Krajčí, and Sudipta Roy Barman

Photonic ferroelectric vortex lattice *(10 pages)* 045428
Ramaz Khomeriki, Vakhtang Jandieri, Koki Watanabe, Daniel Erni, Douglas H. Werner, Marin Alexe, and Jamal Berakdar

Coherent control of thermoelectric currents and noise in quantum thermocouples *(13 pages)* 045429
José Balduque and Rafael Sánchez

Absence of edge states at armchair edges in inhomogeneously strained graphene under a pseudomagnetic field *(12 pages)* 045430
Jing-Yun Fang, Yu-Chen Zhuang, and Qing-Feng Sun

Optical conductivity and damping of plasmons due to electron-electron interaction *(18 pages)* 045431
Prachi Sharma, Alessandro Principi, Giovanni Vignale, and Dmitrii L. Maslov

One-dimensional electron localization in semiconductors coupled to electromagnetic cavities *(12 pages)* 045432
Dmitry Svintsov, Georgy Alymov, Zhanna Devizorova, and Luis Martin-Moreno

Light-induced transitions of polar state and domain morphology of photoferroelectric nanoparticles *(13 pages)* . . . 045434
Eugene A. Eliseev, Anna N. Morozovska, Yulian M. Vysochanskii, Lesya P. Yurchenko, Venkatraman Gopalan, and Long-Qing Chen

Emergent half-metal with mixed structural order in (111)-oriented $(LaMnO_3)_{2n}|(SrMnO_3)_n$ superlattices *(10 pages)* 045435
Fabrizio Cossu, Jùlio Alves Do Nascimento, Stuart A. Cavill, Igor Di Marco, Vlado K. Lazarov, and Heung-Sik Kim

Non-Boltzmann thermoelectric transport in minimally twisted bilayer graphene *(6 pages)* 045436
Bhaskar Ghawri, Phanibhusan S. Mahapatra, Manjari Garg, Shinjan Mandal, Aditya Jayaraman, Kenji Watanabe, Takashi Taniguchi, Manish Jain, U. Chandni, and Arindam Ghosh

Signature of nodal topology in nonlinear quantum transport across junctions in Weyl and multi-Weyl semimetals *(12 pages)* 045437
Suvendu Ghosh, Snehasish Nandy, Jian-Xin Zhu, and A. Taraphder

Protocols to measure the non-Abelian Berry phase by pumping a spin qubit through a quantum-dot loop *(16 pages)* 045438
Baksa Kolok and András Pályi

Intermediate morphology in the patterning of the crystalline Ge(001) surface induced by ion irradiation *(11 pages)* 045439
Denise J. Erb, Daniel A. Pearson, Tomáš Škereň, Martin Engler, R. Mark Bradley, and Stefan Facsko

The editors and referees of PRB find these papers to be of particular interest, importance, or clarity. Please see our Announcement Phys. Rev. B 77, 130001 (2008).