

# CONTENTS - *Continued*

PHYSICAL REVIEW B

THIRD SERIES, VOLUME 108, NUMBER 20

NOVEMBER 2023-15(II)

|                                                                                                                                                  |        |
|--------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| Breakdown of helical edge state topologically protected conductance in time-reversal-breaking excitonic insulators ( <i>13 pages</i> ) . . . . . | 205420 |
| Yan-Qi Wang, Michał Papaj, and Joel E. Moore                                                                                                     |        |
| Topological dissipative Kerr soliton combs in a valley photonic crystal resonator ( <i>8 pages</i> ) . . . . .                                   | 205421 |
| Zhen Jiang, Lefeng Zhou, Wei Li, Yudong Li, Liangsen Feng, Tengfei Wu, Chun Jiang, and Guangqiang He                                             |        |
| Photoluminescence properties and excited state dynamics of monolayer perylene on graphite (0001) ( <i>8 pages</i> ) . . .                        | 205422 |
| Takashi Yamada                                                                                                                                   |        |
| Hybrid scale-free skin effect in non-Hermitian systems: A transfer matrix approach ( <i>16 pages</i> ) . . . . .                                 | 205423 |
| Yongxu Fu and Yi Zhang                                                                                                                           |        |
| High-accuracy Casimir-Polder force calculations using the Discontinuous Galerkin Time-Domain method ( <i>16 pages</i> ) . . . . .                | 205424 |
| Philip Trøst Kristensen, Bettina Beverungen, Francesco Intravaia, and Kurt Busch                                                                 |        |
| Bound states in the continuum in a waveguide structure covered by a two-dimensional square array of gold nanodisks ( <i>7 pages</i> ) . . . . .  | 205425 |
| Sergey I. Pavlov, Ilia M. Fradkin, Sergey A. Dyakov, Nikolay A. Feoktistov, Alexey V. Nashchekin, and Alexander B. Pevtsov                       |        |
| Effect of topological length on bound state signatures in a topological nanowire ( <i>20 pages</i> ) . . . . .                                   | 205426 |
| Dibyajyoti Sahu, Vipin Khade, and Suhas Gangadharaiah                                                                                            |        |
| Monolayer ThSi <sub>2</sub> N <sub>4</sub> : An indirect-gap semiconductor with ultra-high carrier mobility ( <i>9 pages</i> ) . . . . .         | 205427 |
| Cheng Lu, Chuyan Cui, Jingning Zuo, Hongxia Zhong, Shi He, Wei Dai, and Xin Zhong                                                                |        |
| Giant bandwidth tailoring of perfect light absorbers: Empowered by quasibound states in the continuum ( <i>10 pages</i> ) . . . . .              | 205428 |
| Jie Wang, Xiao Wang, Zhongjie Zhu, Hongwei Zhao, and Min Chen                                                                                    |        |
| Boundary multifractality in the spin quantum Hall symmetry class with interaction ( <i>14 pages</i> ) . . . . .                                  | 205429 |
| S. S. Babkin and I. S. Burmistrov                                                                                                                |        |

|                                                                                                                                                                       |        |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| Strain-controlled electronic transport and exciton radiative lifetime in monolayer germanium sulfide ( <i>10 pages</i> ) . . . . .                                    | 205406 |
| Vo Khuong Dien, Pham Thi Bich Thao, Nguyen Thi Han, Nguyen Duy Khanh, Le Vo Phuong Thuan, Ming-Fa Lin, and Nguyen Thanh Tien                                          |        |
| Analog of atomic collapse for adatoms on rhombohedral multilayer graphene ( <i>7 pages</i> ) . . . . .                                                                | 205407 |
| W. C. Silva, J. E. Sanches, A. M. Freitas, L. T. Lustosa, M. de Souza, and A. C. Seridonio                                                                            |        |
| Revisiting the linear and nonlinear optical properties of nanoparticle-on-mirror-type plasmonic metasurfaces with transformation optics ( <i>11 pages</i> ) . . . . . | 205408 |
| Yunfei Zhang, Chen Wei, Fuhua Gao, Dangyuan Lei, and Fan Yang                                                                                                         |        |
| Nature of confining potentials in adatom-based quantum corrals and superlattices ( <i>9 pages</i> ) . . . . .                                                         | 205409 |
| Ahmed M. Othman, Mohammad A. Kher-Elden, Ignacio Piquero-Zulaica, Johannes V. Barth, Moukhtar A. Hassan, Mohammed Farouk, and Zakaria M. Abd El-Fattah                |        |
| Majorana corner modes and tunable patterns in an altermagnet heterostructure ( <i>6 pages</i> ) . . . . .                                                             | 205410 |
| Yu-Xuan Li and Cheng-Cheng Liu                                                                                                                                        |        |
| Adjustable topological corner states in terahertz valley photonic crystals ( <i>10 pages</i> ) . . . . .                                                              | 205411 |
| Gong-Hui Tang, Yu-Liang Hong, Rui-Li Zhang, Ren-Hao Fan, Zhong-Li Ma, Xiang-Yu Wu, Dong-Xiang Qi, Ru-Wen Peng, and Mu Wang                                            |        |
| Surface telluride phases on Pt(111): Reconstructive formation of unusual adsorption sites and well-ordered domain walls ( <i>12 pages</i> ) . . . . .                 | 205412 |
| Tilman Kißlinger, Alexandra Schewski, Andreas Raabgrund, Hannah Loh, Lutz Hammer, and M. Alexander Schneider                                                          |        |
| Hydrodynamic magnetotransport in two-dimensional electron systems with macroscopic obstacles ( <i>24 pages</i> ) . . .                                                | 205413 |
| P. S. Alekseev and A. P. Dmitriev                                                                                                                                     |        |
| Structure-driven tuning of O and CO adsorption on AuCu nanoparticles: A density functional theory study ( <i>10 pages</i> ) . . . . .                                 | 205414 |
| Ilya V. Chepkasov, Viktor S. Baidyshev, and Alexander G. Kvashnin                                                                                                     |        |
| Electron-phonon relaxation in a model of a granular film ( <i>9 pages</i> ) . . . . .                                                                                 | 205415 |
| Nikolai A. Stepanov and Mikhail A. Skvortsov                                                                                                                          |        |
| Linear-in-momentum spin orbit interactions in planar Ge/GeSi heterostructures and spin qubits ( <i>17 pages</i> ) . . . . .                                           | 205416 |
| Esteban A. Rodríguez-Mena, José Carlos Abadillo-Uriel, Gaëtan Veste, Biel Martinez, Jing Li, Benoît Sklénard, and Yann-Michel Niquet                                  |        |
| Quantum dot source-drain transport response at microwave frequencies ( <i>11 pages</i> ) . . . . .                                                                    | 205417 |
| Harald Havar, Subhomoy Haldar, Waqar Khan, Sebastian Lehmann, Kimberly A. Dick, Claes Thelander, Peter Samuelsson, and Ville F. Maisi                                 |        |
| ☞ Plasmon thermal conductivity of thin Au and Ag films ( <i>10 pages</i> ) . . . . .                                                                                  | 205418 |
| Dong-min Kim, Jeongmin Nam, and Bong Jae Lee                                                                                                                          |        |
| Stochastic dynamics of resonance electronic energy transfer in bidimensional overexcited molecular ensembles ( <i>11 pages</i> ) . . . . .                            | 205419 |
| R. Avriller, A. Marché, and G. Jonusauskas                                                                                                                            |        |

(Continued)

|                                                                                                                                                                                        |        |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| Investigation of a +2 oxidation spin state in weakly doped $\text{Cd}_{1-x}\text{Ti}_x\text{Se}$ (7 pages) . . . . .                                                                   | 205202 |
| J. Dimuna, T. Boyett, I. Miotkowski, A. K. Ramdas, T. M. Pekarek, and J. T. Haraldsen                                                                                                  |        |
| Tuning the intrinsic spin Hall effect by charge density wave order in topological kagome metals (9 pages) . . . . .                                                                    | 205203 |
| Diana Golovanova, Hengxin Tan, Tobias Holder, and Binghai Yan                                                                                                                          |        |
| Comprehensive study of the interstitial hydrogen donor in $\text{SnO}_2$ (11 pages) . . . . .                                                                                          | 205204 |
| F. Herklotz, E. V. Lavrov, V. V. Melnikov, Z. Galazka, and V. F. Agekyan                                                                                                               |        |
| <b>Semiconductors II: surfaces, interfaces, microstructures, and related topics</b>                                                                                                    |        |
| Topological nanophononic interface states using high-order bandgaps in the one-dimensional Su-Schrieffer-Heeger model (11 pages) . . . . .                                             | 205301 |
| A. Rodriguez, K. Papatryfonos, E. R. Cardozo de Oliveira, and N. D. Lanzillotti-Kimura                                                                                                 |        |
|  Kondo interaction of quantum spin Hall edge channels with charge puddles (7 pages) . . . . .          | 205302 |
| Christopher Fuchs, Saquib Shamim, Pragya Shekhar, Lena Fürst, Johannes Kleinlein, Jukka I. Väyrynen, Hartmut Buhmann, and Laurens W. Molenkamp                                         |        |
| Single-shot spatial instability and electric control of polariton condensates at room temperature (7 pages) . . . . .                                                                  | 205303 |
| Ying Gao, Xuekai Ma, Xiaokun Zhai, Chunzi Xing, Meini Gao, Haitao Dai, Hao Wu, Tong Liu, Yuan Ren, Xiao Wang, Anlian Pan, Wei Hu, Stefan Schumacher, and Tingge Gao                    |        |
| Direct insulator to relativistic quantum Hall transition in graphene (7 pages) . . . . .                                                                                               | 205304 |
| Ching-Chen Yeh, Pin-Chi Liao, Dinesh K. Patel, Wei-Chen Lin, Siang-Chi Wang, Albert F. Rigosi, Randolph E. Elmquist, and Chi-Te Liang                                                  |        |
| Spatially-resolved emission of GaAs/AlGaAs quantum dots grown by nanohole-filled droplet epitaxy (6 pages) . . . . .                                                                   | 205305 |
| Ekaterina I. Deribina, Aleksei O. Murzin, Elena A. Bashegurova, Anna Yu. Samsonova, Maksim S. Lozhkin, Vyacheslav A. Lovecjs, Sergey A. Eliseev, Yury P. Efimov, and Yury V. Kapitonov |        |
| <b>Surface physics, nanoscale physics, low-dimensional systems</b>                                                                                                                     |        |
| Operator effective medium approximation for inhomogeneous and curvilinear media (13 pages) . . . . .                                                                                   | 205401 |
| Andrey Novitsky, Milena Ramanovich, and Denis V. Novitsky                                                                                                                              |        |
| Spin precession of light holes in the spin-orbit field of strained GaAs nanowires (8 pages) . . . . .                                                                                  | 205402 |
| D. Paget, T. Amand, H. Hijazi, A. C. H. Rowe, G. Monier, E. Gil, F. Cadiz, C. Robert Goumet, and Y. André                                                                              |        |
| One-dimensional spin-polarized surface states: A comparison of Bi(112) with other vicinal bismuth surfaces (8 pages) . . . . .                                                         | 205403 |
| Anna Cecilie Åsland, Johannes Bakkeland, Even Thingstad, Håkon I. Røst, Simon P. Cooil, Jinbang Hu, Ivana Vobornik, Jun Fujii, Asle Sudbø, Justin W. Wells, and Federico Mazzola       |        |
| Controllable single-spin evolution at subharmonics of electric dipole spin resonance enhanced by four-level Landau-Zener-Stückelberg-Majorana interference (12 pages) . . . . .        | 205404 |
| D. V. Khomitsky, M. V. Bastrakova, V. O. Munyaev, N. A. Zaprudnov, and S. A. Studenikin                                                                                                |        |
| Nonlocal transport signatures of topological superconductivity in a phase-biased planar Josephson junction (8 pages) . . . . .                                                         | 205405 |
| D. Kuiri and M. P. Nowak                                                                                                                                                               |        |

(Continued)

|                                                                                                                                                                                  |        |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| Large power factor, anomalous Nernst effect, and temperature-dependent thermoelectric quantum oscillations in the magnetic Weyl semimetal NdAlSi (7 pages) . . . . .             | 205143 |
| Qing-Xin Dong, Jin-Feng Wang, Li-Bo Zhang, Jian-Li Bai, Qiao-Yu Liu, Jing-Wen Cheng, Pin-Yu Liu, Cun-Dong Li, Jun-Sen Xiang, Zhi-An Ren, Pei-Jie Sun, and Gen-Fu Chen            |        |
| ☞ Vortexability: A unifying criterion for ideal fractional Chern insulators (20 pages) . . . . .                                                                                 | 205144 |
| Patrick J. Ledwith, Ashvin Vishwanath, and Daniel E. Parker                                                                                                                      |        |
| Emergent U(1) symmetry in non-particle-conserving one-dimensional models (14 pages) . . . . .                                                                                    | 205145 |
| Zakaria Jouini, Natalia Chepiga, Loïc Herviou, and Frédéric Mila                                                                                                                 |        |
| Effect of off-diagonal elements in the Wannier Hamiltonian on DFT + DMFT for low-symmetry materials: Study of Li <sub>2</sub> MnO <sub>3</sub> (11 pages) . . . . .              | 205146 |
| Alex Taekyung Lee, Hyowon Park, and Anh T. Ngo                                                                                                                                   |        |
| ☞ Kondo temperature evaluated from linear conductance in magnetic fields (10 pages) . . . . .                                                                                    | 205147 |
| Rui Sakano, Tokuro Hata, Kaiji Motoyama, Yoshimichi Teratani, Kazuhiko Tsutsumi, Akira Oguri, Tomonori Arakawa, Meydi Ferrier, Richard Deblock, Mikio Eto, and Kensuke Kobayashi |        |
| High-field magnetization and magnetic phase diagrams for three symmetry axes in single-crystal CeAl <sub>2</sub> (8 pages) . . . . .                                             | 205148 |
| Takao Ebihara, Jumaeda Jatmika, Atsushi Miyake, Masashi Tokunaga, and Koichi Kindo                                                                                               |        |
| Pseudomagnetic fields in square lattices (11 pages) . . . . .                                                                                                                    | 205149 |
| Junsong Sun, Xingchuan Zhu, Tianyu Liu, Shiping Feng, and Huaiming Guo                                                                                                           |        |
| From hexagonal to rocksalt structure: A computational study of gallium selenide under hydrostatic pressure (12 pages) . . . . .                                                  | 205150 |
| Vo Khuong Dien, Nguyen Thanh Tien, Nguyen Duy Khanh, Nguyen Thi Ngoc Han, and Ming-Fa Lin                                                                                        |        |
| Clustering neural quantum states via diffusion maps (17 pages) . . . . .                                                                                                         | 205152 |
| Yanting Teng, Subir Sachdev, and Mathias S. Scheurer                                                                                                                             |        |
| Ordering in the SU(4)-symmetric model of AA bilayer graphene (11 pages) . . . . .                                                                                                | 205153 |
| A. V. Rozhkov, A. O. Sboychakov, and A. L. Rakhmanov                                                                                                                             |        |
| Superconducting stripes in the hole-doped three-band Hubbard model (7 pages) . . . . .                                                                                           | 205154 |
| Boris Ponsioen, Sangwoo S. Chung, and Philippe Corboz                                                                                                                            |        |
| Transport coefficients for higher dimensional quantum Hall effect (15 pages) . . . . .                                                                                           | 205155 |
| Dimitra Karabali and V. P. Nair                                                                                                                                                  |        |
| Coexistence of <i>s</i> -wave superconductivity and phase separation in the half-filled extended Hubbard model with attractive interactions (8 pages) . . . . .                  | 205156 |
| E. Linnér, C. Dutreix, S. Biermann, and E. A. Stepanov                                                                                                                           |        |
| Possible topological superconductivity in the topological crystalline insulator (Pb <sub>1-x</sub> Sn <sub>x</sub> ) <sub>1-y</sub> In <sub>y</sub> Te (9 pages) . . . . .       | 205157 |
| I. Pletikosić, T. Yilmaz, B. Sinkovic, A. P. Weber, G. D. Gu, and T. Valla                                                                                                       |        |
| <b>Semiconductors I: bulk</b>                                                                                                                                                    |        |
| ☞ Enhancing high harmonic generation in GaAs by elliptically polarized light excitation (9 pages) . . . . .                                                                      | 205201 |
| Fumiya Sekiguchi, Minoru Sakamoto, Kotaro Nakagawa, Hirokazu Tahara, Shunsuke A. Sato, Hideki Hirori, and Yoshihiko Kanemitsu                                                    |        |

(Continued)

|                                                                                                                                                                                                                       |        |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| Kaleidoscope of phases tuned by global dipole orientations in the Hubbard model (15 pages) . . . . .                                                                                                                  | 205128 |
| Tiago Mendes-Santos, Rubem Mondaini, Thereza Paiva, and Raimundo R. dos Santos                                                                                                                                        |        |
| Using models with static quantum many-body scars to generate time-crystalline behavior under periodic driving (9 pages) . . . . .                                                                                     | 205129 |
| Wentai Deng and Zhi-Cheng Yang                                                                                                                                                                                        |        |
| Generic Mott-Hubbard phase diagram for extended Hubbard models without Umklapp scattering (17 pages) . . . . .                                                                                                        | 205130 |
| Florian Gebhard, Kevin Bauerbach, and Örs Legeza                                                                                                                                                                      |        |
| Exciton spectra and layer decomposition in $\text{MoSi}_2\text{N}_4/\text{WSi}_2\text{N}_4$ heterostructures (8 pages) . . . . .                                                                                      | 205131 |
| Hongxia Zhong, Shiyuan Gao, Guangyong Zhang, Zhengyu Xu, Jianmeng Zhou, Xingbing Li, Cheng Lu, and Yunhua Wang                                                                                                        |        |
| Magnetic field induced Weyl state in the van der Waals-type antiferromagnet $\text{GdTe}_3$ (8 pages) . . . . .                                                                                                       | 205132 |
| Y. M. Wan, E.-J. Cheng, H.-Y. Ma, X. F. Yang, X. F. Hou, X. J. Chen, X. Zhang, C. Y. Xi, Z. C. Zhong, J. P. Liu, Y. F. Guo, and S. Y. Li                                                                              |        |
| Electrical transport and electronic properties of multiband metallic $\text{PdSn}_2$ (8 pages) . . . . .                                                                                                              | 205133 |
| C.-C. Chang, C.-E. Hsu, J.-Y. Huang, T.-C. Liu, C.-M. Cheng, W.-T. Chen, P.-Y. Cheng, C.-N. Kuo, C.-S. Lue, C.-C. Lee, and C.-L. Huang                                                                                |        |
| Thermoelectric properties and electronic structure of $\text{Cr}(\text{Mo}, \text{V})\text{N}_x$ thin films studied by synchrotron and lab-based x-ray spectroscopy (12 pages) . . . . .                              | 205134 |
| Susmita Chowdhury, Victor Hjort, Rui Shu, Grzegorz Greczynski, Arnaud le Febvrier, Per Eklund, and Martin Magnuson                                                                                                    |        |
| Acoustic higher-order topological insulators protected by multipole chiral numbers (6 pages) . . . . .                                                                                                                | 205135 |
| Yuzeng Li, Huahui Qiu, Qicheng Zhang, and Chunyin Qiu                                                                                                                                                                 |        |
| Hidden nematic fluctuation in the triclinic $(\text{Ca}_{0.85}\text{La}_{0.15})_{10}(\text{Pt}_3\text{As}_8)(\text{Fe}_2\text{As}_2)_5$ superconductor revealed by ultrafast optical spectroscopy (7 pages) . . . . . | 205136 |
| Qi-Yi Wu, Chen Zhang, Ze-Zhong Li, Wen-Shan Hong, Hao Liu, Jiao-Jiao Song, Yin-Zou Zhao, Ya-Hua Yuan, Bo Chen, Xue-Qing Ye, Shiliang Li, Jun He, H. Y. Liu, Yu-Xia Duan, Hui-Qian Luo, and Jian-Qiao Meng             |        |
| Pseudogap and electron localization in the 4d shell of $\text{NbO}_2$ bulk crystal (7 pages) . . . . .                                                                                                                | 205137 |
| L. Craco and M. S. Laad                                                                                                                                                                                               |        |
| Localization induced by spatially uncorrelated subohmic baths in one dimension (11 pages) . . . . .                                                                                                                   | 205138 |
| Saptarshi Majumdar, Laura Foini, Thierry Giamarchi, and Alberto Rosso                                                                                                                                                 |        |
| Controllable Weyl nodes and Fermi arcs in a light-irradiated carbon allotrope (6 pages) . . . . .                                                                                                                     | 205139 |
| Ruoning Ji, Xianrong Ding, Fangyang Zhan, Xiaoliang Xiao, Jing Fan, Zhen Ning, and Rui Wang                                                                                                                           |        |
| Colossal magnetoresistance and topological phase transition in $\text{EuZn}_2\text{As}_2$ (9 pages) . . . . .                                                                                                         | 205140 |
| Shuaishuai Luo, Yongkang Xu, Feng Du, Lin Yang, Yuxin Chen, Chao Cao, Yu Song, and Huiqiu Yuan                                                                                                                        |        |
| Emergent $\mathbb{Z}_2$ symmetry near a charge density wave multicritical point (6 pages) . . . . .                                                                                                                   | 205141 |
| Steven A. Kivelson, Akshat Pandey, Anisha G. Singh, Aharon Kapitulnik, and Ian R. Fisher                                                                                                                              |        |
|  Shaking photons out of a topological material (17 pages) . . . . .                                                                 | 205142 |
| Mário G. Silveirinha                                                                                                                                                                                                  |        |

(Continued)

|                                                                                                                                                                                                                  |        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| Uniaxial stress study of spin and charge stripes in $\text{La}_{1.875}\text{Ba}_{0.125}\text{CuO}_4$ by $^{139}\text{La}$ NMR and $^{63}\text{Cu}$ NQR (12 pages) . . . . .                                      | 205113 |
| I. Jakovac, A. P. Dioguardi, M. S. Grbić, G. D. Gu, J. M. Tranquada, C. W. Hicks, M. Požek, and H.-J. Grafe                                                                                                      |        |
| Ferrimagnetic charge order in molecular conductors with diluted localized spins exhibiting enhanced giant magnetoresistance effect (7 pages) . . . . .                                                           | 205114 |
| Ryuta Ishii, Misato Uejo, Erina Watari, Mitsuo Ikeda, Hiroshi Murakawa, Hideaki Sakai, Masaki Matsuda, Hideo Yoshioka, Masahisa Tsuchiizu, and Noriaki Hanasaki                                                  |        |
| Current-induced spin accumulation and magnetoresistance in chiral semimetals (7 pages) . . . . .                                                                                                                 | 205115 |
| A. A. Burkov, Michael Smith, Alexander Hickey, and Ivar Martin                                                                                                                                                   |        |
|  X-cube Floquet code: A dynamical quantum error correcting code with a subextensive number of logical qubits (10 pages) . . . . . | 205116 |
| Zhehao Zhang, David Aasen, and Sagar Vijay                                                                                                                                                                       |        |
| Green's function zeros in Fermi surface symmetric mass generation (12 pages) . . . . .                                                                                                                           | 205117 |
| Da-Chuan Lu, Meng Zeng, and Yi-Zhuang You                                                                                                                                                                        |        |
| Infrared probe of the charge density wave gap in $\text{ScV}_6\text{Sn}_6$ (10 pages) . . . . .                                                                                                                  | 205118 |
| D. W. Kim, Shuyuan Liu, Chongze Wang, H. W. Nam, G. Pokharel, Stephen D. Wilson, Jun-Hyung Cho, and S. J. Moon                                                                                                   |        |
| Theoretical design of ellipsoidal nodal surface semimetals via hypervalent hydrides at high pressure (8 pages) . . . . .                                                                                         | 205119 |
| Zihan Zhang, Mingfeng Zhu, Hao Song, Feng Liu, Bartomeu Monserrat, Chris J. Pickard, Defang Duan, and Tian Cui                                                                                                   |        |
|  Structure of quasiparticles in a local Fermi liquid (17 pages) . . . . .                                                       | 205120 |
| Izak Snyman                                                                                                                                                                                                      |        |
| Exciton-spin interactions in antiferromagnetic charge-transfer insulators (12 pages) . . . . .                                                                                                                   | 205121 |
| Tatsuya Kaneko, Yuta Murakami, Denis Golež, Zhiyuan Sun, and Andrew J. Millis                                                                                                                                    |        |
| Delocalized polaron and Burstein-Moss shift induced by Li in $\alpha\text{-V}_2\text{O}_5$ : A DFT + DMFT study (12 pages) . . . . .                                                                             | 205122 |
| Huu T. Do, Alex Taekyung Lee, Hyowon Park, and Anh T. Ngo                                                                                                                                                        |        |
| Emergent QED <sub>3</sub> from half-filled flat Chern bands (12 pages) . . . . .                                                                                                                                 | 205123 |
| Xue-Yang Song, Hart Goldman, and Liang Fu                                                                                                                                                                        |        |
| Distinct electridelike nature of infinite-layer nickelates and the resulting theoretical challenges to calculate their electronic structure (11 pages) . . . . .                                                 | 205124 |
| Kateryna Foyevtsova, Ilya Elfimov, and George A. Sawatzky                                                                                                                                                        |        |
| Correlation-driven nontrivial phases in single-bilayer kagome intermetallics (15 pages) . . . . .                                                                                                                | 205125 |
| Aabhaas Vineet Mallik, Adhip Agarwala, and Tanusri Saha-Dasgupta                                                                                                                                                 |        |
| Spinless mirror Chern insulator from projective symmetry algebra (9 pages) . . . . .                                                                                                                             | 205126 |
| Lubing Shao, Zhiyi Chen, Kai Wang, Shengyuan A. Yang, and Yuxin Zhao                                                                                                                                             |        |
| Local-symmetry-sensitive elastic softening in the Kramers doublet system $\text{Y}_{1-x}\text{Nd}_x\text{Co}_2\text{Zn}_{20}$ (7 pages) . . . . .                                                                | 205127 |
| Isao Ishii, Tomohiro Umeno, Rikako Yamamoto, Takahiro Onimaru, Takashi Suzuki, Koji Araki, Atsuhiko Miyata, Sergei Zherlitsyn, and J. Wosnitzer                                                                  |        |

(Continued)

|                                                                                       |         |
|---------------------------------------------------------------------------------------|---------|
| Intrinsic nonlinear conductivities induced by the quantum metric (6 pages) . . . . .  | L201405 |
| Kamal Das, Shibalik Lahiri, Rhonald Burgos Atencia, Dimitrie Culcer, and Amit Agarwal |         |

## ARTICLES

**Electronic structure and strongly correlated systems**

|                                                                                                                                                                                                                         |        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| Exploration of strongly correlated states in $\text{SmB}_6$ through a comparison of its two-coil pick-up response to that of $\text{Bi}_2\text{Se}_3$ (11 pages) . . . . .                                              | 205101 |
| Sayantan Ghosh, Sugata Paul, Amit Jash, Zachary Fisk, and S. S. Banerjee                                                                                                                                                |        |
| Non-RPA behavior of the valence plasmon in $\text{SrTi}_{1-x}\text{Nb}_x\text{O}_3$ (9 pages) . . . . .                                                                                                                 | 205102 |
| Caitlin S. Kengle, Samantha I. Rubeck, Melinda Rak, Jin Chen, Faren Hoveyda, Simon Bettler, Ali Husain, Matteo Mitrano, Alexander Edelman, Peter Littlewood, Tai-Chang Chiang, Fahad Mahmood, and Peter Abbamonte       |        |
| Charge order evolution of superconducting $\text{BaNi}_2\text{As}_2$ under high pressure (6 pages) . . . . .                                                                                                            | 205103 |
| John Collini, Daniel J. Campbell, Daniel Sneed, Prathum Saraf, Christopher Eckberg, Jason Jeffries, Nicholas Butch, and Johnpierre Paglione                                                                             |        |
| Flat band induced local Hilbert space fragmentation (9 pages) . . . . .                                                                                                                                                 | 205104 |
| Eulàlia Nicolau, Anselmo M. Marques, Ricardo G. Dias, and Verònica Ahufinger                                                                                                                                            |        |
| Interplay of broken symmetry and delocalized excitations in the insulating state of $1T\text{-TaS}_2$ (9 pages) . . . . .                                                                                               | 205105 |
| Xun Jia, Anubhab Haldar, Jungho Kim, Yilin Wang, Gilberto Fabbris, Karl Ludwig, Stefanos Kourtis, Mary Upton, Yu Liu, Wenjian Lu, Xuan Luo, Yu-Ping Sun, Diego Casa, Sahar Sharifzadeh, Pierre T. Darancet, and Yue Cao |        |
| Dirac points embedded in the continuum (9 pages) . . . . .                                                                                                                                                              | 205106 |
| Pilar Pujol-Closa and David Artigas                                                                                                                                                                                     |        |
| Rich nature of the topological semimetal states in $\text{InBi}$ (7 pages) . . . . .                                                                                                                                    | 205107 |
| Man Li, Wenxin Lv, Ningning Zhao, Chunsheng Gong, Tianlun Yu, Xiaoyang Chen, Minyinan Lei, Alexander Fedorov, Kai Liu, Bernd Büchner, Hechang Lei, Shancai Wang, and Rui Lou                                            |        |
| Half-metallic ferromagnetism and intrinsic anomalous Hall effect in the topological Heusler compound $\text{Co}_2\text{MnGe}$ (8 pages) . . . . .                                                                       | 205108 |
| Sudipta Chatterjee, Saheli Samanta, Barnali Ghosh, and Kalyan Mandal                                                                                                                                                    |        |
| Quantum fluctuations approach to the nonequilibrium $GW$ approximation: Density correlations and dynamic structure factor (19 pages) . . . . .                                                                          | 205109 |
| Erik Schroedter, Björn Jakob Wurst, Jan-Philip Joost, and Michael Bonitz                                                                                                                                                |        |
| Equilibrium quantum impurity problems via matrix product state encoding of the retarded action (12 pages) . . . . .                                                                                                     | 205110 |
| Benedikt Kloss, Julian Thoenniss, Michael Sonner, Alessio Lerose, Matthew T. Fishman, E. M. Stoudenmire, Olivier Parcollet, Antoine Georges, and Dmitry A. Abanin                                                       |        |
| Existence of two distinct valence bond solid states in the dimerized frustrated ferromagnetic $J_1\text{-}J'_1\text{-}J_2$ chain (11 pages) . . . . .                                                                   | 205111 |
| Jędrzej Wardyn, Satoshi Nishimoto, and Clò Eftimia Agrapidis                                                                                                                                                            |        |
| Glasslike cross-plane thermal conductivity of the kagome metals $\text{RbV}_3\text{Sb}_5$ and $\text{CsV}_3\text{Sb}_5$ (10 pages) . . . . .                                                                            | 205112 |
| Yu Pang, Jinjin Liu, Xuanhui Fan, Haobo Yang, Jie Zhu, Zhiwei Wang, Yugui Yao, Xin Qian, and Ronggui Yang                                                                                                               |        |

(Continued)

# CONTENTS - *Continued*

PHYSICAL REVIEW B

THIRD SERIES, VOLUME 108, NUMBER 20

NOVEMBER 2023-15(II)

|                                                                                                                                                                    |         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| Suppressed superexchange interactions in the cuprates by bond-stretching oxygen phonons ( <i>6 pages</i> ) . . . . .                                               | L201113 |
| Shaozhi Li and Steven Johnston                                                                                                                                     |         |
| Diversity of radial spin textures in chiral materials ( <i>6 pages</i> ) . . . . .                                                                                 | L201114 |
| Daniel Gosálbez-Martínez, Alberto Crepaldi, and Oleg V. Yazyev                                                                                                     |         |
| Disorder in the nonlinear anomalous Hall effect of $\mathcal{PT}$ -symmetric Dirac fermions ( <i>6 pages</i> ) . . . . .                                           | L201115 |
| Rhonald Burgos Atencia, Di Xiao, and Dimitrie Culcer                                                                                                               |         |
| Piercing the Dirac spin liquid: From a single monopole to chiral states ( <i>6 pages</i> ) . . . . .                                                               | L201116 |
| Sasank Budaraju, Yasir Iqbal, Federico Becca, and Didier Poilblanc                                                                                                 |         |
| $\text{Pb}_9\text{Cu}(\text{PO}_4)_6\text{O}$ is a charge-transfer semiconductor ( <i>4 pages</i> ) . . . . .                                                      | L201117 |
| Lorenzo Celiberti, Lorenzo Varrassi, and Cesare Franchini                                                                                                          |         |
| Breaking electron pairs in the pseudogap regime of $\text{SmTiO}_3$ - $\text{SrTiO}_3$ - $\text{SmTiO}_3$ quantum wells ( <i>6 pages</i> ) . . . . .               | L201118 |
| Xinyi Wu, Lu Chen, Arthur Li, Megan Briggeman, Patrick B. Marshall, Susanne Stemmer, Patrick Irvin, and Jeremy Levy                                                |         |
| Spin-1/2 XXZ chain coupled to two Lindblad baths: Constructing nonequilibrium steady states from equilibrium correlation functions ( <i>7 pages</i> ) . . . . .    | L201119 |
| Tjark Heitmann, Jonas Richter, Fengping Jin, Sourav Nandy, Zala Lenarčič, Jacek Herbrych, Kristel Michielsens, Hans De Raedt, Jochen Gemmer, and Robin Steinigeweg |         |
| Giant anisotropic band flattening in twisted $\Gamma$ -valley semiconductor bilayers ( <i>6 pages</i> ) . . . . .                                                  | L201120 |
| Huan Wang, Zhaochen Liu, Yadong Jiang, and Jing Wang                                                                                                               |         |
| Electronic correlations and superconducting instability in $\text{La}_3\text{Ni}_2\text{O}_7$ under high pressure ( <i>6 pages</i> ) . . . . .                     | L201121 |
| Frank Lechermann, Jannik Gondolf, Steffen Bötzel, and Ilya M. Eremin                                                                                               |         |
| Correlated electronic structure of $\text{Pb}_{10-x}\text{Cu}_x(\text{PO}_4)_6\text{O}$ ( <i>5 pages</i> ) . . . . .                                               | L201122 |
| Changming Yue, Viktor Christiansson, and Philipp Werner                                                                                                            |         |
| <b>Semiconductors I: bulk</b>                                                                                                                                      |         |
| Exchange gap in $\text{GdPtBi}$ probed by magneto-optics ( <i>5 pages</i> ) . . . . .                                                                              | L201201 |
| S. Polatkan, E. Uykur, I. Mohelsky, J. Wyzula, M. Orlita, C. Shekhar, C. Felser, M. Dressel, and A. V. Pronin                                                      |         |
| <b>Surface physics, nanoscale physics, low-dimensional systems</b>                                                                                                 |         |
| Dimensionality crossover for moiré excitons in twisted bilayers of anisotropic two-dimensional semiconductors ( <i>7 pages</i> ) . . . . .                         | L201401 |
| Isaac Soltero and David A. Ruiz-Tijerina                                                                                                                           |         |
| Radiative heat exchange driven by acoustic vibration modes between two solids at the atomic scale ( <i>5 pages</i> ) . . . .                                       | L201402 |
| M. Gómez Vitoria, Y. Guo, S. Merabia, R. Messina, and P. Ben-Abdallah                                                                                              |         |
| Exciton localization on a magnetic domain wall in $\text{MoSe}_2$ - $\text{CrI}_3$ heterostructures ( <i>6 pages</i> ) . . . . .                                   | L201403 |
| S. Mikkola, I. Chestnov, I. Iorsh, and V. Shahnazaryan                                                                                                             |         |
| Enhanced spin Hall response from aligned Kramers-Weyl points in high Chern number semimetals ( <i>6 pages</i> ) . . . .                                            | L201404 |
| C. O. Ascencio, Wei Jiang, D. J. P. de Sousa, Seungjun Lee, Jian-Ping Wang, and Tony Low                                                                           |         |

(Continued)

## LETTERS

### Electronic structure and strongly correlated systems

- Probing Luttinger liquid properties in a multichannel two-site charge Kondo simulator (*6 pages*) ..... L201101  
A. V. Parafilo, V. M. Kovalev, and I. G. Savenko
- Observation of fourfold nodal hinges and toruslike surface modes in acoustic metamaterials (*8 pages*) ..... L201102  
Huahui Qiu, Qicheng Zhang, Tingzhi Liu, Xiying Fan, and Chunyin Qiu
- Effect of many-body interaction on de Haas–van Alphen oscillations in insulators (*6 pages*) ..... L201103  
Gurpreet Singh and Hridis K. Pal
- Ideal weak topological insulator and protected helical saddle points (*6 pages*) ..... L201104  
Ji Seop Oh, Tianyi Xu, Nikhil Dhale, Sheng Li, Chao Lei, Chiho Yoon, Wenhao Liu, Jianwei Huang,  
Hanlin Wu, Makoto Hashimoto, Donghui Lu, Chris Jozwiak, Aaron Bostwick, Eli Rotenberg,  
Chun Ning Lau, Bing Lv, Fan Zhang, Robert J. Birgeneau, and Ming Yi
- Magnetic fluctuations in  $\text{Pb}_9\text{Cu}(\text{PO}_4)_6\text{O}$  (*6 pages*) ..... L201105  
Makoto Shimizu, Junya Otsuki, and Harald O. Jeschke
- Laughlin’s quasielectron as a nonlocal composite fermion (*6 pages*) ..... L201106  
Alberto Nardin and Leonardo Mazza
- Generalized maximum entropy methods as limits of the average spectrum method (*5 pages*) ..... L201107  
Khaldoon Ghanem and Erik Koch
- Interlayer valence bonds and two-component theory for high- $T_c$  superconductivity of  $\text{La}_3\text{Ni}_2\text{O}_7$   
under pressure (*6 pages*) ..... L201108  
Yi-feng Yang, Guang-Ming Zhang, and Fu-Chun Zhang
- Full-counting statistics of corner charge fluctuations (*6 pages*) ..... L201109  
Clément Berthiere, Benoit Estienne, Jean-Marie Stéphan, and William Witczak-Krempa
- Singlet, triplet, and pair density wave superconductivity in the doped triangular-lattice moiré system (*6 pages*) ... L201110  
Feng Chen and D. N. Sheng
- ☞ Interplay between relaxational atomic fluctuations and charge density waves in  $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$  (*6 pages*) ..... L201111  
L. Shen, V. Esposito, N. G. Burdet, M. Zhu, A. N. Petsch, T. P. Croft, S. P. Collins, Z. Ren,  
F. Westermeier, M. Sprung, S. M. Hayden, J. J. Turner, and E. Blackburn
- Large and tunable spin-orbit effect of  $6p$  orbitals through structural cavities in crystals (*6 pages*) ..... L201112  
Mauro Fava, William Lafargue-Dit-Hauret, Aldo H. Romero, and Eric Bousquet



(Continued)



2469-9950(20231115)108:20;1-W