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 2 *CONTENTS* **JANUARY 2024-1(II)**

LETTERS

Structure, structural phase transitions, mechanical properties, defects

Coexistence of polar and antipolar phases in ferroelectric halide perovskite $CsGeBr_3$ *(6 pages)* L020101
Ravi Kashikar, S. Lisenkov, and I. Ponomareva

Inhomogeneous, disordered, and partially ordered systems

Non-Hermitian Hamiltonians violate the eigenstate thermalization hypothesis *(6 pages)* L020201
Giorgio Cipolloni and Jonah Kudler-Flam

Berezinskii-Kosterlitz-Thouless-like localization-localization transitions in disordered two-dimensional quantized quadrupole insulators *(6 pages)* L020202
C. Wang, Wenxue He, Hechen Ren, and X. R. Wang

Complete delocalization and reentrant topological transition in a non-Hermitian quasiperiodic lattice *(5 pages)* . . . L020203
Ashirbad Padhan, Soumya Ranjan Padhi, and Tapan Mishra

Dynamics, dynamical systems, lattice effects:

Equivalence between general acoustic Willis media and conventional materials with embedded sources *(7 pages)* L020301
Mehmet Utku Demir and Bogdan-Ioan Popa

Observation of acoustic Floquet π modes in a time-varying lattice *(8 pages)* L020302
Zhao-xian Chen, An Chen, Yu-Gui Peng, Zheng-wei Li, Bin Liang, Jing Yang, Xue-Feng Zhu, Yan-qing Lu, and Jian-chun Cheng

Emergent classical spin liquid phases in an Ising lattice via size effects *(5 pages)* L020303
Pratik Brahma and Sayeef Salahuddin

Entanglement and absorbing-state transitions in interactive quantum dynamics *(6 pages)* L020304
Nicholas O'Dea, Alan Morningstar, Sarang Gopalakrishnan, and Vedika Khemani

Magnetism

Electrical Seebeck contrast observation of magnon Hall effect in topological ferromagnet $Lu_2V_2O_7$/heavy metal heterostructures *(7 pages)* L020401
Jinsong Xu, Jiaming He, J.-S. Zhou, Danru Qu, Ssu-Yen Huang, and C. L. Chien

Spinon continuum in the Heisenberg quantum chain compound $Sr_2V_3O_9$ *(8 pages)* L020402
Shang Gao, Ling-Fang Lin, Pontus Laurell, Qiang Chen, Qing Huang, Clarina dela Cruz, Krishnamurthy V. Vemuru, Mark D. Lumsden, Stephen E. Nagler, Gonzalo Alvarez, Elbio Dagotto, Haidong Zhou, Andrew D. Christianson, and Matthew B. Stone

(Continued)

2469-9950(20240101)109:2;1-I

This paper was highlighted in the APS publication *Physics* (physics.aps.org).

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 2 JANUARY 2024-1(II)

Emergent transverse-field Ising model in d^4 spin-orbit Mott insulators *(6 pages)* L020403
Jiří Chaloupka

Multiple Zeeman-type hidden spin splittings in $\mathcal{PT}$-symmetric layered antiferromagnets *(7 pages)* L020404
Sajjan Sheoran and Saswata Bhattacharya

Quantum-critical scaling at the Bose-glass transition of the 3*d* diluted Heisenberg antiferromagnet in a field *(6 pages)* L020405
Yuchen Fan, Rong Yu, and Tommaso Roscilde

Significant modulation of Gilbert damping in ultrathin ferromagnetic films by altering the surface magnetic anisotropy *(7 pages)* L020406
Shugo Yoshii, Manuel Müller, Hajime Inoue, Ryo Ohshima, Matthias Althammer, Yuichiro Ando, Hans Huebl, and Masashi Shiraishi

Phase transition in the two-dimensional Heisenberg ferromagnet Fe_3GeTe_2 with long-range interaction *(6 pages)* L020407
Ankita Tiwari, Hyobin Ahn, Birendra Kumar, Jyoti Saini, Pawan Kumar Srivastava, Budhi Singh, Changgu Lee, and Subhasis Ghosh

Experimental determination of the spin Hamiltonian of the cubic chiral magnet MnSi *(7 pages)* L020408
P. Dalmas de Réotier, A. Yaouanc, G. Lapertot, C. Wang, A. Amato, and D. Andreica

Superfluidity and superconductivity

Giant nonreciprocity of current-voltage characteristics of noncentrosymmetric superconductor–normal metal–superconductor junctions *(7 pages)* L020501
T. Liu, M. Smith, A. V. Andreev, and B. Z. Spivak

Quantum viscosity and the Reynolds similitude of a pure superfluid *(6 pages)* L020502
Hiromitsu Takeuchi

High-temperature superconductivity in La_4H_{23} below 100 GPa *(6 pages)* L020503
Sam Cross, Jonathan Buhot, Annabelle Brooks, William Thomas, Annette Kleppe, Oliver Lord, and Sven Friedemann

Order-parameter evolution in the Fulde-Ferrell-Larkin-Ovchinnikov phase *(5 pages)* L020504
S. Molatta, T. Kotte, D. Opherden, G. Koutroulakis, J. A. Schlueter, G. Zwicknagl, S. E. Brown, J. Wosnitza, and H. Kühne

Unique d_{xy} superconducting state in the cuprate $Ba_2CuO_{3.25}$ *(6 pages)* L020505
Priyo Adhikary, Mayank Gupta, Amit Chauhan, Sashi Satpathy, Shantanu Mukherjee, and B. R. K. Nanda

ARTICLES

Structure, structural phase transitions, mechanical properties, defects

Experimental and computational study of the core-level crossing transition in iridium at high pressure *(10 pages)* 024101
C. V. Storm, G. A. Woolman, C. M. Lonsdale, J. D. McHardy, M. J. Duff, G. J. Ackland, and M. I. McMahon

(Continued)

This paper was highlighted in the APS publication *Physics* (physics.aps.org).

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 2 JANUARY 2024-1(II)

Correlations between valence electron concentration and the phase stability, intrinsic strength, and deformation mechanism in fcc multicomponent alloys *(16 pages)* 024102
Yan-Xin Guo, Hai-Le Yan, Nan Jia, Bo Yang, Zongbin Li, and Liang Zuo

Polarization structure of nanostrip domain intersections in GeTe films *(9 pages)* 024103
Boris Croes, Fabien Cheynis, Salia Cherifi-Hertel, Kokou Dodzi Dorkenoo, Pierre Müller, Stefano Curiotto, and Frédéric Leroy

Space-charge driven origin of the reversible pyrocurrent peaks in $Cu_{1-x}Cd_xCr_2O_4$ *(8 pages)* 024104
Abhishek Das, Riju Pal, Sakshi Mehta, Kazi Parvez Islam, Abhishake Mondal, Atindra Nath Pal, and Debraj Choudhury

Phase transition at 350 K in the $Ti_3C_2T_x$ MXene: Possible sliding or moiré ferroelectricity *(8 pages)* 024105
Francesco Cordero, Hanna Pazniak, Thierry Ouisse, Jesus Gonzalez-Julian, Aldo Di Carlo, Viktor Soprunyuk, and Wilfried Schranz

Ab initio constraints on the melting of silica at high pressures up to 500 GPa *(9 pages)* 024106
Ming Geng (耿明) and Chris E. Mohn

Effects of rotation on a phononic crystal operated in whispering gallery modes *(10 pages)* 024107
Fei Ge, Liye Zhao, Jiawen Xu, and Xukai Ding

Backscattering of topologically protected helical edge states by line defects *(8 pages)* 024108
Mohadese Karimi, Mohsen Amini, Morteza Soltani, and Mozhgan Sadeghizadeh

Experimental investigation of the premelting process in Sn *(7 pages)* 024109
Stephen G. Lipson and Emil Polturak

Coherent control of the translational and point group symmetries of crystals with light *(15 pages)* 024110
Guru Khalsa, Jeffrey Z. Kaaret, and Nicole A. Benedek

Three charge-ordered phases in bilayered $Pr(Sr_{0.1}Ca_{0.9})_2Mn_2O_7$: From antiferrodistortive to ferrodistortive structures *(13 pages)* 024111
J. Blasco, V. Cuartero, S. Lafuerza, J. L. García-Muñoz, F. Fauth, and G. Subías

Temperature-induced gradual polymorphic structural crossover in liquid indium, tin, and antimony *(13 pages)* . . . 024112
Q. L. Shi, X. D. Wang, Q. P. Cao, S. Q. Ding, D. X. Zhang, K. A. Beyer, and J. Z. Jiang

Ferroelectricity and chirality in the $Pb_5Ge_3O_{11}$ crystal *(11 pages)* 024113
Mauro Fava, William Lafargue-Dit-Hauret, Aldo H. Romero, and Eric Bousquet

Characterization of zero-energy corner states in higher-order topological systems with chiral symmetry *(7 pages)* 024114
Wen-Jie Yang, Shi-Feng Li, Xin-Ye Zou, and Jian-Chun Cheng

Structural phase transition and spin state in the perovskite cobalt oxides $La_{1-x}Pr_xCoO_3$ ($x = 0.30, 0.34$) *(7 pages)* 024115
Daisuke Urushihara, Chie Ando, Mai Komabuchi, Koichiro Fukuda, Yuki Nakahira, Chikako Moriyoshi, Shunsuke Kitou, Nobuyuki Abe, Taka-hisa Arima, and Toru Asaka

Inhomogeneous, disordered, and partially ordered systems

Splitting of fast relaxation in a metallic glass by laser shocks *(8 pages)* 024201
C. Yang, J. Duan, G. Ding, Y. J. Bai, B. C. Wei, Y. P. Wei, S. N. Liu, S. Lan, B. B. Zhang, C. J. Shi, L. H. Dai, and M. Q. Jiang

(Continued)

This paper was highlighted in the APS publication *Physics* (physics.aps.org).

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 2** **JANUARY 2024-1(II)**

Disorder-induced decoupling of attracting identical fermions: Transfer matrix approach *(9 pages)* 024202
Lolita I. Knyazeva and Vladimir I. Yudson

Localization transitions in a non-Hermitian quasiperiodic lattice *(11 pages)* 024203
Aruna Prasad Acharya and Sanjoy Datta

Entanglement phase transitions in non-Hermitian quasicrystals *(13 pages)* 024204
Longwen Zhou

Long-range spectral statistics of the Rosenzweig-Porter model *(7 pages)* 024205
Wouter Buijsman

Local integrals of motion and the stability of many-body localization in Wannier-Stark potentials *(19 pages)* 024206
C. Bertoni, J. Eisert, A. Kshetrimayum, A. Nietner, and S. J. Thomson

Dynamics, dynamical systems, lattice effects:

Steering-induced phase transition in measurement-only quantum circuits *(12 pages)* 024301
Dongheng Qian and Jing Wang

Mode-selective anharmonicity induced by lone-pair electrons in layered oxyselenides *(9 pages)* 024302
Gan Liu, Yang-Yang Lv, Zhiwei Jiang, Guan-Zhang Liu, Xiaoli Zhou, Yong Zhang, Jiahui Zheng, Lu Xu, Ming-Hui Lu, Shu-Hua Yao, Yanbin Chen, Jian Zhou, Xiaoxiang Xi, and Yan-Feng Chen

Dynamical relaxation behavior of an extended XY chain with a gapless phase following a quantum quench *(11 pages)* 024303
Kaiyuan Cao, Yayun Hu, Peiqing Tong, and Guangwen Yang

Properties of nonclassical correlated Stokes–anti-Stokes photon pair in decane *(7 pages)* 024304
Filomeno S. de Aguiar Júnior, Carlos H. Monken, and Ado Jorio

Observation of multiple off-site corner states induced by next-nearest-neighbor coupling in a sonic crystal *(7 pages)* 024305
Wei Xiong, Shuochen Wang, Zhiwang Zhang, Haixiao Zhang, Ying Cheng, and Xiaojun Liu

Emergent entanglement phase transitions in non-Hermitian Aubry-André-Harper chains *(9 pages)* 024306
Shan-Zhong Li, Xue-Jia Yu, and Zhi Li

Rejection-free quantum Monte Carlo in continuous time from transition path sampling *(16 pages)* 024307
Luke Causer, Konstantinos Sfairopoulos, Jamie F. Mair, and Juan P. Garrahan

Deciphering core-exciton dynamics in CaF_2 with attosecond spectroscopy *(9 pages)* 024308
Rafael Quintero-Bermudez and Stephen R. Leone

Terahertz ionic Kerr effect: Two-phonon contribution to the nonlinear optical response in insulators *(10 pages)* . . . 024309
M. Basini, M. Udina, M. Pancaldi, V. Unikandanunni, S. Bonetti, and L. Benfatto

Many-body enhancement in a spin-chain quantum heat engine *(12 pages)* 024310
L. A. Williamson and Matthew J. Davis

Slow thermalization and subdiffusion in $U(1)$ conserving Floquet random circuits *(11 pages)* 024311
Cheryne Jonay, Joaquin F. Rodriguez-Nieva, and Vedika Khemani

(Continued)

This paper was highlighted in the APS publication *Physics* (physics.aps.org).
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 2 JANUARY 2024-1(II)

Nonlinear wavepacket dynamics in proximity to a stationary inflection point *(8 pages)* 024312
Serena Landers, Arkady Kurnosov, William Tuxbury, Ilya Vitebskiy, and Tsampikos Kottos

Magnetism

Successive ferroelectric transitions induced by complex spin structures in $MnBi_2S_4$ *(9 pages)* 024401
Pavitra N. Shanbhag, Fabio Orlandi, Pascal Manuel, Martin Etter, Shrikant Bhat, and A. Sundaresan

Noncoplanar magnetic order in the breathing kagome lattice compound $Pb(OF)Cu_3(SeO_3)_2(NO_3)$ *(9 pages)* 024402
Yimeng Gu, Zeyu Kao, Yiqing Hao, Weiqin Zhu, Qiang Zhang, Yan Wu, Changsong Xu, Huibo Cao, and Jun Zhao

Manipulation of low-energy spin precession in a magnetic thin film by tuning its molecular field *(5 pages)* 024403
Valentin Desbuis, Daniel Lacour, Coriolan Tiusan, Christopher Vautrin, S. Migot, J. Ghanbaja, Yuan Lu, Wolfgang Weber, and Michel Hehn

Topological transition from nodal to nodeless Zeeman splitting in altermagnets *(19 pages)* 024404
Rafael M. Fernandes, Vanuildo S. de Carvalho, Turan Birol, and Rodrigo G. Pereira

Impact of oxidation state on the valence-bond glass physics in the lithium-intercalated Mo_3O_8 cluster Mott insulators *(9 pages)* 024405
Daigo Ishikita, Yuya Haraguchi, and Hiroko Aruga Katori

Giant valley polarization and perpendicular magnetocrystalline anisotropy energy in monolayer MX_2 (M = Ru, Os; X = Cl, Br) *(12 pages)* 024406
Weifeng Xie, Long Zhang, Yunliang Yue, Min Li, and Hui Wang

Microstructure and magnetic properties of the ferromagnetic semiconductor $Ge_{1-x}Mn_x$ following rapid thermal annealing *(9 pages)* 024407
Zhicheng Xie, Gengchen Meng, Lianjun Wen, Zhiyuan Zhao, Hongli Sun, Hongrui Qin, Dong Pan, Hailong Wang, Dahai Wei, and Jianhua Zhao

Charge conservation in spin-torque oscillators leads to a self-induced torque *(6 pages)* 024408
Pieter M. Gunnink, Tim Ludwig, and Rembert A. Duine

Antiferromagnetic-ferromagnetic homostructures with Dirac magnons in the van der Waals magnet CrI_3 *(9 pages)* 024409
John A. Schneeloch, Luke Daemen, and Despina Louca

Nonlinear optical effects due to magnetization dynamics in a ferromagnet *(8 pages)* 024411
Evgeny A. Karashtin and Tatiana V. Murzina

Surface effects in ferrimagnetic TbFe rare-earth–transition-metal thin films and nanoparticles *(11 pages)* 024412
Paweł Sobieszczyk and Michal Krupinski

Gilbert damping in metallic ferromagnets from Schwinger-Keldysh field theory: Intrinsically nonlocal, nonuniform, and made anisotropic by spin-orbit coupling *(10 pages)* 024413
Felipe Reyes-Osorio and Branislav K. Nikolić

Exploring the magnetic properties of W-type $SrFe_{18}O_{27}$ hexaferrite: Insights from a first-principles study *(14 pages)* 024414
Riyajul Islam, S. P. Madsen, and Mogens Christensen

(Continued)

This paper was highlighted in the APS publication *Physics* (physics.aps.org).

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 2** **JANUARY 2024-1(II)**

Nonreflection beam formation in a magnonic antidot array *(7 pages)* 024415
V. D. Bessonov, A. B. Khutieva, V. S. Teplov, S. E. Sheshukova, A. V. Telegin, A. I. Stognij, R. Gieniusz, U. Guzowska, A. Maziewski, and A. V. Sadovnikov

Anisotropic magnetic, magnetocaloric properties, and critical behavior studies of CVT-grown single-crystalline $Fe_{3-x}GeTe_2$ *(14 pages)* 024416
Rosni Roy and Rajib Mondal

Distinct universality classes of diffusive transport from full counting statistics *(10 pages)* 024417
Sarang Gopalakrishnan, Alan Morningstar, Romain Vasseur, and Vedika Khemani

Tailoring energy barriers of Bloch-point-mediated transitions between topological spin textures *(15 pages)* 024418
Yu Li (李昱), Yuzhe Zang, Runze Chen, and Christoforos Moutafis

Anisotropic in-plane heat transport of Kitaev magnet $Na_2Co_2TeO_6$ *(7 pages)* 024419
Shuangkui Guang, Na Li, Qing Huang, Ke Xia, Yiyan Wang, Hui Liang, Yan Sun, Qiuju Li, Xia Zhao, Rui Leonard Luo, Gang Chen, Haidong Zhou, and Xuefeng Sun

Mixed Bloch-Néel type skyrmions in a two-dimensional lattice *(8 pages)* 024420
Zhonglin He, Kaiying Dou, Wenhui Du, Ying Dai, Baibiao Huang, and Yandong Ma

Proximity-induced nonlinear magnetoresistances on topological insulators *(9 pages)* 024421
M. Mehraeen and Steven S.-L. Zhang

Coherent and incoherent magnons induced by strong ultrafast demagnetization in thin permalloy films *(7 pages)* 024422
Anulekha De, Akira Lentfert, Laura Scheuer, Benjamin Stadtmüller, Georg von Freymann, Martin Aeschlimann, and Philipp Pirro

Local atomic and magnetic structure of multiferroic (Sr, Ba)(Mn, Ti)O_3 *(12 pages)* 024423
Braedon Jones, Christiana Z. Suggs, Elena Krivyakina, Daniel Phelan, V. Ovidiu Garlea, Omar Chmaissem, and Benjamin A. Frandsen

Intraband terms of magnetocrystalline anisotropy energy in layered systems without inversion symmetry *(18 pages)* 024424
M. Cinal

Perturbative transfer matrix method for optical-pump terahertz-probe spectroscopy of ultrafast dynamics in spintronic terahertz emitters *(11 pages)* 024425
Yingshu Yang, Stefano Dal Forno, and Marco Battiato

Magnetic antiskyrmions in two-dimensional van der Waals magnets engineered by layer stacking *(11 pages)* 024426
Kai Huang, Edward Schwartz, Ding-Fu Shao, Alexey A. Kovalev, and Evgeny Y. Tsymbal

Magnetic properties and spin dynamics in the spin-orbit driven $J_{\text{eff}} = \frac{1}{2}$ triangular lattice antiferromagnet $Ba_6Yb_2Ti_4O_{17}$ *(13 pages)* 024427
J. Khatua, S. Bhattacharya, A. M. Strydom, A. Zorko, J. S. Lord, A. Ozarowski, E. Kermarrec, and P. Khuntia

Achieving unidirectional propagation of twisted magnons in a magnetic nanodisk array *(8 pages)* 024428
Zhixiong Li, Xiansi Wang, Xuejuan Liu, and Peng Yan

(Continued)

This paper was highlighted in the APS publication *Physics* (physics.aps.org).

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 2** **JANUARY 2024-1(II)**

Signature of surface anisotropy in the spin-flip neutron scattering cross section of spherical nanoparticles: Atomistic simulations and analytical theory *(17 pages)* 024429
Michael P. Adams, Evelyn Pratami Sinaga, Hamid Kachkachi, and Andreas Michels

Chiral phonons and phononic birefringence in ferromagnetic metal–bulk acoustic resonator hybrids *(14 pages)* 024430
M. Müller, J. Weber, F. Engelhardt, V. A. S. V. Bittencourt, T. Luschmann, M. Cherkasskii, M. Opel, S. T. B. Goennenwein, S. Viola Kusminskiy, S. Geprägs, R. Gross, M. Althammer, and H. Huebl

Complete replica solution for the transverse field Sherrington-Kirkpatrick spin glass model with continuous-time quantum Monte Carlo method *(20 pages)* 024431
Annamária Kiss, Gergely Zaránd, and Izabella Lovas

Electrically sign-reversible topological Hall effect in a top-gated topological insulator $(Bi,Sb)_2Te_3$ grown on europium iron garnet *(10 pages)* 024432
J.-F. Wong, K.-H. M. Chen, J.-M. Chia, Z.-P. Huang, S.-X. Wang, P.-T. Chen, L. B. Young, Y.-H. G. Lin, S.-F. Lee, C.-Y. Mou, M. Hong, and J. Kwo

Electrical switching of the light color reflected from a NiFe/IrMn mirror *(10 pages)* 024433
M. V. Bakhmetiev, A. I. Chernov, A. B. Khutieva, A. V. Sadovnikov, and R. B. Morgunov

Anomalous Hall effect in an antiferromagnetic CeGaSi single crystal *(7 pages)* 024434
Jing Gong, Huan Wang, Kun Han, Xiang-Yu Zeng, Xiao-Ping Ma, Yi-Ting Wang, Jun-Fa Lin, Xiao-Yan Wang, and Tian-Long Xia

Quantum criticality in $YbCu_4Ni$ *(6 pages)* 024435
Kotaro Osato, Takanori Taniguchi, Hirotaka Okabe, Takafumi Kitazawa, Masahiro Kawamata, Zhao Hongfei, Yoichi Ikeda, Yusuke Nambu, Dita Puspita Sari, Isao Watanabe, Jumpei G. Nakamura, Akihiro Koda, Jun Gouchi, Yoshiya Uwatoko, and Masaki Fujita

Phase diagram of a ferromagnetic semiconductor: Origin of superparamagnetism *(9 pages)* 024436
N. A. Bogoslovskiy, P. V. Petrov, and N. S. Averkiev

Laser fluence tunable spin transport and ultrafast demagnetization in $BiSbTe_{1.5}Se_{1.5}/Co_{20}Fe_{60}B_{20}$ bilayers *(9 pages)* 024437
Suchetana Mukhopadhyay, Pratap Kumar Pal, Subhadip Manna, Chiranjib Mitra, and Anjan Barman

High-field magnetization of $KEr(MoO_4)_2$ *(6 pages)* 024438
K. Kutko, B. Bernáth, V. Khrustalyov, O. Young, H. Engelkamp, P. C. M. Christianen, L. Prodan, Y. Skourski, L. V. Pourovskii, S. Khmelevskyi, and D. Kamenskyi

Topological and magnetic phase transitions in the bilayer Kitaev-Ising model *(9 pages)* 024439
Aayush Vijayvargia, Urban F. P. Seifert, and Onur Erten

Dynamic electromagnonic crystals based on ferrite-ferroelectric thin film multilayers *(12 pages)* 024440
Aleksei A. Nikitin, Nikolai Kuznetsov, Sebastiaan van Dijken, and Erkki Lähderanta

Breakdown of chiral edge modes in topological magnon insulators *(22 pages)* 024441
Jonas Habel, Alexander Mook, Josef Willsher, and Johannes Knolle

(Continued)

This paper was highlighted in the APS publication *Physics* (physics.aps.org).

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 2** **JANUARY 2024-1(II)**

Crystal structure, spin flop transition, and magnetoelectric effect in the honeycomb-lattice frustrated Fe-doped $Ni_2Mo_3O_8$ antiferromagnets *(8 pages)* 024442
Zhipeng Yu, Hao Ding, Kun Zhai, Congpu Mu, Anmin Nie, Junzhuang Cong, Junquan Huang, Houjian Zhou, Qingkai Wang, Fusheng Wen, Jianyong Xiang, Bochong Wang, Tianyu Xue, Zhongming Zeng, and Zhongyuan Liu

Superfluidity and superconductivity

Case of thermodynamic failure in the Ginzburg-Landau approach to fluctuation superconductivity *(8 pages)* 024501
Jorge Berger

Kramers' degenerate magnetism and superconductivity *(9 pages)* 024502
Adil Amin, Hao Wu, Tatsuya Shishidou, and Daniel F. Agterberg

Converting a triplet Cooper pair supercurrent into a spin signal *(16 pages)* 024503
Sigrid Aunsmo and Jacob Linder

Nonreciprocal charge transport and subharmonic structure in voltage-biased Josephson diodes *(19 pages)* 024504
A. Zazunov, J. Rech, T. Jonckheere, B. Grémaud, T. Martin, and R. Egger

Transition from half-filled stripe to Néel antiferromagnetism in the t'-Hubbard model on the honeycomb lattice *(5 pages)* 024505
Yang Shen and Mingpu Qin

Slope of the upper critical field at T_c in two-band superconductors with nonmagnetic disorder: s_{++} superconductivity in $Ba_{1-x}K_xFe_2As_2$ *(8 pages)* 024506
R. Prozorov, V. G. Kogan, M. Kończykowski, and M. A. Tanatar

Upper bounds on superconducting and excitonic phase stiffness for interacting isolated narrow bands *(17 pages)* 024507
Dan Mao and Debanjan Chowdhury

Geometric phase driven Josephson junction: Possible experimental scheme for the search of spin superfluidity *(13 pages)* 024508
Yilin Liu, Zi-Jian Li, Jiadu Lin, and Qing-Dong Jiang

Flux-tunable supercurrent in full-shell nanowire Josephson junctions *(14 pages)* 024509
G. Giavaras and R. Aguado

Nonlinear response of diffusive superconductors to ac electromagnetic fields *(17 pages)* 024510
Pascal Derendorf, Anatoly F. Volkov, and Ilya M. Eremin

Buzdin, Shapiro, and chimera steps in φ_0 Josephson junctions *(9 pages)* 024511
Yu. M. Shukrinov, E. Kovalenko, J. Tekić, K. Kulikov, and M. Nashaat

Universal orbital and magnetic structures in infinite-layer nickelates *(9 pages)* 024512
M. Rossi, H. Lu, K. Lee, B. H. Goodge, J. Choi, M. Osada, Y. Lee, D. Li, B. Y. Wang, D. Jost, S. Agrestini, M. Garcia-Fernandez, Z. X. Shen, Ke-Jin Zhou, E. Been, B. Moritz, L. F. Kourkoutis, T. P. Devereaux, H. Y. Hwang, and W. S. Lee

Multicondensate lengths with degenerate excitation gaps in $BaNi_2As_2$ revealed by muon spin relaxation study *(9 pages)* 024513
Kaiwen Chen, Zihao Zhu, Yaofeng Xie, Adrian D. Hillier, James S. Lord, Pengcheng Dai, and Lei Shu

(Continued)

This paper was highlighted in the APS publication *Physics* (physics.aps.org).

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 2** **JANUARY 2024-1(II)**

Peak effects in the kagome superconductors CsV_3Sb_5 and $Cs(V_{0.93}Nb_{0.07})_3Sb_5$ *(8 pages)* 024514
Chunlei Wang, Yuki Hirota, Lubin Wang, Ryosuke Sakagami, Yongkai Li, Xiaolei Yi, Wenjie Li, Yangsong Chen, Cheng Yu, Zhiwei Wang, and Tsuyoshi Tamegai

Electron irradiation reveals robust fully gapped superconductivity in $LaNiGa_2$ *(8 pages)* 024515
S. Ghimire, K. R. Joshi, E. H. Krenkel, M. A. Tanatar, Yunshu Shi, M. Kończykowski, R. Grasset, V. Taufour, P. P. Orth, M. S. Scheurer, and R. Prozorov

Stripe order and diode effect in two-dimensional Rashba superconductors *(11 pages)* 024516
Kazushi Aoyama

Orientation-dependent Josephson effect in spin-singlet superconductor/altermagnet/spin-triplet superconductor junctions *(10 pages)* 024517
Qiang Cheng and Qing-Feng Sun

This paper was highlighted in the APS publication *Physics* (physics.aps.org).

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).