PHYSICAL REVIEW B **THIRD SERIES, VOLUME 97, NUMBER 21** **JUNE 2018-1(I)**

Erratum: Magnetoelectric effects in an organometallic quantum magnet
[Phys. Rev. B **83**, 140405(R) (2011)] *(1 page)*..... 219902(E)
V. S. Zapf, P. Sengupta, C. D. Batista, F. Nasreen, F. Wolff-Fabris, and A. Paduan-Filho

Erratum: Disorder and superfluid density in overdoped cuprate superconductors
[Phys. Rev. B **96**, 024501 (2017)] *(1 page)*..... 219903(E)
N. R. Lee-Hone, J. S. Dodge, and D. M. Broun

Publisher's Note: Josephson junction detectors for Majorana modes and Dirac fermions
[Phys. Rev. B **92**, 224501 (2015)] *(1 page)*..... 219904(E)
M. Maiti, K. V. Kulikov, K. Sengupta, and Yu. M. Shukrinov

Erratum: Theory of multiple-phase competition in pyrochlore magnets with anisotropic exchange with application to $Yb_2Ti_2O_7$, $Er_2Ti_2O_7$, and $Er_2Sn_2O_7$ [Phys. Rev. B **95**, 094422 (2017)] *(3 pages)*..... 219905(E)
Han Yan, Owen Benton, Ludovic Jaubert, and Nic Shannon

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 97, NUMBER 21** **JUNE 2018-1(I)**

Coexistence of superconductivity and short-range double-stripe spin correlations in Te-vapor annealed $FeTe_{1-x}Se_x$ ($x \leqslant 0.2$) *(6 pages)* 214511
Zhijun Xu, J. A. Schneeloch, Ming Yi, Yang Zhao, Masaaki Matsuda, D. M. Pajerowski, Songxue Chi, R. J. Birgeneau, Genda Gu, J. M. Tranquada, and Guangyong Xu

Formation of single-phase disordered $Cs_xFe_{2-y}Se_2$ at high pressure *(6 pages)* 214512
V. Svitlyk, E. Pomjakushina, A. Krzton-Maziopa, K. Conder, and M. Mezouar

Theory of energy spectra in superfluid ^{4}He counterflow turbulence *(14 pages)* 214513
Victor S. L'vov and Anna Pomyalov

Quantum confinement effects in Pb nanocrystals grown on InAs *(11 pages)* 214514
Tianzhen Zhang, Sergio Vlaic, Stéphane Pons, Alexandre Assouline, Alexandre Zimmers, Dimitri Roditchev, Hervé Aubin, Guy Allan, Christophe Delerue, Christophe David, Guillemin Rodary, and Jean-Christophe Girard

Probing unconventional superconductivity in proximitized graphene by impurity scattering *(6 pages)* 214515
Oladunjoye A. Awoga and Annica M. Black-Schaffer

Complete electrodynamics of a BCS superconductor with μeV energy scales: Microwave spectroscopy on titanium at mK temperatures *(8 pages)* 214516
Markus Thiemann, Martin Dressel, and Marc Scheffler

Weak metal-metal transition in the vanadium oxytelluride $Rb_{1-\delta}V_2Te_2O$ *(10 pages)* 214517
Abduweli Ablimit, Yun-Lei Sun, Hao Jiang, Si-Qi Wu, Ya-Bin Liu, and Guang-Han Cao

Crystal growth, characterization, and point-contact Andreev-reflection spectroscopy of the noncentrosymmetric superconductor Mo_3Al_2C *(11 pages)* 214518
N. D. Zhigadlo, D. Logvinovich, V. A. Stepanov, R. S. Gonnelli, and D. Daghero

Nontrivial metallic state of MoS_2 *(7 pages)* 214519
Zi-Yu Cao, Jia-Wei Hu, Alexander F. Goncharov, and Xiao-Jia Chen

Role of canting and depleted-triplet minima in superconducting spin valve structures *(11 pages)* 214520
Thomas E. Baker and Andreas Bill

Manipulation of individual superconducting vortices and stick-slip motion in periodic pinning arrays *(11 pages)* 214521
Xiaoyu Ma, C. J. O. Reichhardt, and C. Reichhardt

Hall effect for interacting bosons in a lattice *(9 pages)* 214522
K. Patucha, B. Grygiel, and T. A. Zaleski

Nonthermodynamic nature of the orbital angular momentum in neutral fermionic superfluids *(13 pages)* 214523
Yasuhiro Tada

Sequential superconductor–Bose insulator–Fermi insulator phase transitions in quasi-two-dimensional α-WSi *(5 pages)* 214524
Xiaofu Zhang and Andreas Schilling

ERRATA

Erratum: Magnetically induced electric polarization in an organometallic magnet [Phys. Rev. B **82**, 060402(R) (2010)] *(1 page)* ..... 219901(E)
V. S. Zapf, M. Kenzelmann, F. Wolff-Fabris, F. Balakirev, and Y. Chen

(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 97, NUMBER 21** **JUNE 2018-1(I)**

Magnetoreflection and magnetophotoluminescence in the dilute magnetic semiconductor $Zn_{1-x}Mn_xTe$ *(8 pages)* 214435
Le Van Khoi, R. R. Gałązka, and W. Zawadzki

Probing the $J_{\mathrm{eff}} = 0$ ground state and the Van Vleck paramagnetism of the Ir^{5+} ions in layered $Sr_2Co_{0.5}Ir_{0.5}O_4$ *(8 pages)* 214436
S. Agrestini, C.-Y. Kuo, K. Chen, Y. Utsumi, D. Mikhailova, A. Rogalev, F. Wilhelm, T. Förster, A. Matsumoto, T. Takayama, H. Takagi, M. W. Haverkort, Z. Hu, and L. H. Tjeng

Polarization analysis of magnetic excitation in multiferroic $Ba_2CoGe_2O_7$ *(6 pages)* 214437
Minoru Soda, Lieh-Jeng Chang, Masashige Matsumoto, V. Ovidiu Garlea, Bertrand Roessli, Jonathan S. White, Hazuki Kawano-Furukawa, and Takatsugu Masuda

Magnetic field dependence of nonlinear magnetic response and tricritical point in the monoaxial chiral helimagnet $Cr_{1/3}NbS_2$ *(15 pages)* 214438
E. M. Clements, Raja Das, Manh-Huong Phan, Ling Li, Veerle Keppens, David Mandrus, Michael Osofsky, and Hariharan Srikanth

Superfluidity and superconductivity

Phase diagram of the underdoped cuprates at high magnetic field *(22 pages)* 214501
Debmalya Chakraborty, Corentin Morice, and Catherine Pépin

Distinguishing topological Majorana bound states from trivial Andreev bound states: Proposed tests through differential tunneling conductance spectroscopy *(7 pages)* 214502
Chun-Xiao Liu, Jay D. Sau, and S. Das Sarma

Spin-imbalanced pairing and Fermi surface deformation in flat bands *(8 pages)* 214503
Kukka-Emilia Huhtinen, Marek Tylutki, Pramod Kumar, Tuomas I. Vanhala, Sebastiano Peotta, and Päivi Törmä

Zero energy states at a normal-metal/cuprate-superconductor interface probed by shot noise *(6 pages)* 214504
O. Negri, M. Zaberchik, G. Drachuck, A. Keren, and M. Reznikov

Topological footprints of the Kitaev chain with long-range superconducting pairings at a finite temperature *(7 pages)* 214505
Utso Bhattacharya and Amit Dutta

Aharonov-Bohm and Aharonov-Casher effects for local and nonlocal Cooper pairs *(6 pages)* 214506
Damian Tomaszewski, Piotr Busz, Rosa López, Rok Žitko, Minchul Lee, and Jan Martinek

Supercurrent as a probe for topological superconductivity in magnetic adatom chains *(8 pages)* 214507
Narayan Mohanta, Arno P. Kampf, and Thilo Kopp

Green's-function theory of dirty two-band superconductivity *(15 pages)* 214508
Yasuhiro Asano and Alexander A. Golubov

Supercurrent in ferromagnetic Josephson junctions with heavy metal interlayers *(8 pages)* 214509
Nathan Satchell and Norman O. Birge

Absence of superconductivity in iron polyhydrides at high pressures *(8 pages)* 214510
Christoph Heil, Giovanni B. Bachelet, and Lilia Boeri

(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 97, NUMBER 21** **JUNE 2018-1(I)**

High-field phase diagram and phase transitions in hexagonal manganite $ErMnO_3$ *(5 pages)* 214419
Y. J. Liu, J. F. Wang, X. F. Sun, J.-S. Zhou, Z. C. Xia, Z. W. Ouyang, M. Yang, C. B. Liu, R. Chen, J.-G. Cheng, Y. Kohama, M. Tokunaga, and K. Kindo

Scaling of nonlinear susceptibilities in an artificial permalloy honeycomb lattice *(5 pages)* 214420
A. Dahal, Y. Chen, B. Summers, and D. K. Singh

Spontaneous distortion via the appearance of ferromagnetism in Pd ultrathin films: Observation of an inverse mechanism for the Stoner criterion *(5 pages)* 214421
Shunsuke Sakuragi, Hiroo Tajiri, Hiroyuki Kageshima, and Tetsuya Sato

Coupling of magnetic order and charge transport in the candidate Dirac semimetal $EuCd_2As_2$ *(11 pages)* 214422
M. C. Rahn, J.-R. Soh, S. Francoual, L. S. I. Veiga, J. Strempfer, J. Mardegan, D. Y. Yan, Y. F. Guo, Y. G. Shi, and A. T. Boothroyd

Selection rules for cavity-enhanced Brillouin light scattering from magnetostatic modes *(6 pages)* 214423
J. A. Haigh, N. J. Lambert, S. Sharma, Y. M. Blanter, G. E. W. Bauer, and A. J. Ramsay

Weak magnetic anisotropy in $GdRh_2Si_2$ studied by magnetic resonance *(8 pages)* 214424
J. Sichelschmidt, K. Kliemt, M. Hofmann-Kliemt, and C. Krellner

Staggered field induced dynamical effects in a quantum spin chain *(9 pages)* 214425
A. A. Zvyagin

Brownian motion of magnetic domain walls and skyrmions, and their diffusion constants *(9 pages)* 214426
Jacques Miltat, Stanislas Rohart, and André Thiaville

Spin-valve-like magnetoresistance in a Ni-Mn-In thin film *(7 pages)* 214427
Sandeep Agarwal, Baomin Wang, Huali Yang, Pravarthana Dhanapal, Yuan Shen, Junling Wang, Hailong Wang, Jianhua Zhao, and Run-Wei Li

Static and dynamic signatures of anisotropic electronic phase separation in $La_{2/3}Ca_{1/3}MnO_3$ thin films under anisotropic strain *(10 pages)* 214428
L. Hu, L. Q. Yu, P. Xiong, X. L. Wang, J. H. Zhao, L. F. Wang, Z. Huang, and W. B. Wu

Phase transition in $SU(N) \times U(1)$ gauge theory with many fundamental bosons *(6 pages)* 214429
Ankur Das

Thermodynamics of a quantum Ising system coupled to a spin bath *(16 pages)* 214430
R. D. McKenzie and P. C. E. Stamp

Calculating magnetic interactions in organic electrides *(6 pages)* 214431
Taek Jung Kim, Hongkee Yoon, and Myung Joon Han

Magnetic inhomogeneity in the copper pseudochalcogenide CuNCN *(9 pages)* 214432
A. Zorko, P. Jeglič, M. Pregelj, D. Arčon, H. Luetkens, A. L. Tchougréeff, and R. Dronskowski

Ground-state phase diagram of the frustrated spin-$\frac{1}{2}$ two-leg honeycomb ladder *(14 pages)* 214433
Qiang Luo, Shijie Hu, Jize Zhao, Alexandros Metavitsiadis, Sebastian Eggert, and Xiaoqun Wang

Classification of magnetic forces acting on an antiferromagnetic domain wall *(6 pages)* 214434
H. Y. Yuan, Weiwei Wang, Man-Hong Yung, and X. R. Wang

(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 97, NUMBER 21** **JUNE 2018-1(I)**

Temperature-dependent relaxation of dipole-exchange magnons in yttrium iron garnet films *(9 pages)*..... 214405
Laura Mihalceanu, Vitaliy I. Vasyuchka, Dmytro A. Bozhko, Thomas Langner, Alexey Yu. Nechiporuk, Vladyslav F. Romanyuk, Burkard Hillebrands, and Alexander A. Serga

Helical magnetic structure and the anomalous and topological Hall effects in epitaxial B20 $Fe_{1-y}Co_yGe$ films *(19 pages)*..... 214406
Charles S. Spencer, Jacob Gayles, Nicholas A. Porter, Satoshi Sugimoto, Zabeada Aslam, Christian J. Kinane, Timothy R. Charlton, Frank Freimuth, Stanislav Chadov, Sean Langridge, Jairo Sinova, Claudia Felser, Stefan Blügel, Yuriy Mokrousov, and Christopher H. Marrows

Magnetic field tunable dielectric dispersion in successive field-induced magnetic phases of the geometrically frustrated magnet $CuFeO_2$ up to 28 T *(8 pages)*..... 214407
H. Tamatsukuri, S. Mitsuda, K. Hiroura, T. Nakajima, M. Fujihala, M. Yamano, Y. Toshioka, C. Kaneko, K. Takehana, Y. Imanaka, N. Terada, and H. Kitazawa

Magnetism of metallacrown single-molecule magnets: From a simplest model to realistic systems *(19 pages)*..... 214408
Y. Pavlyukh, E. Rentschler, H. J. Elmers, W. Hübner, and G. Lefkidis

Electromagnetic effects induced by a time-dependent axion field *(6 pages)*..... 214409
Katsuhisa Taguchi, Tatsushi Imaeda, Tetsuya Hajiri, Takuya Shiraishi, Yukio Tanaka, Naoya Kitajima, and Tatsuhiro Naka

Magnetic-field control of electric polarization in coupled spin chains with three-site interactions *(10 pages)*..... 214410
Jozef Sznajd

Evolution of magnetic and orbital properties in the magnetically diluted *A*-site spinel $Cu_{1-x}Zn_xRh_2O_4$ *(8 pages)*..... 214411
A. V. Zakrzewski, S. Gangopadhyay, G. J. MacDougall, A. A. Aczel, S. Calder, and T. J. Williams

Micromagnetic simulation study of a disordered model for one-dimensional granular perovskite manganite oxide nanostructures *(8 pages)*..... 214412
P. Longone and F. Romá

Intrinsic hysteresis due to the surface barrier for chiral solitons in monoaxial chiral helimagnets *(8 pages)*..... 214413
M. Shinozaki, Y. Masaki, R. Aoki, Y. Togawa, and Y. Kato

Electrical transport properties of micrometer-sized samples of the rare-earth chiral magnet $YbNi_3Al_9$ *(7 pages)*... 214414
Ryuya Aoki, Yoshihiko Togawa, and Shigeo Ohara

Calculating the transport properties of magnetic materials from first principles including thermal and alloy disorder, noncollinearity, and spin-orbit coupling *(23 pages)*..... 214415
Anton A. Starikov, Yi Liu, Zhe Yuan, and Paul J. Kelly

Resurrecting the partially isotropic Haldane-Shastry model *(6 pages)*..... 214416
Jules Lamers

Competition of lattice and spin excitations in the temperature dependence of spin-wave properties *(11 pages)*..... 214417
Marco Di Gennaro, Alonso L. Miranda, Thomas A. Ostler, Aldo H. Romero, and Matthieu J. Verstraete

Nonswitchable polarization and magnetoelectric coupling in the high-pressure synthesized doubly ordered perovskites $NaYMnWO_6$ and $NaHoCoWO_6$ *(7 pages)*..... 214418
Chandan De and A. Sundaresan

(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 97, NUMBER 21** **JUNE 2018-1(I)**

Boltzmann transport theory for many-body localization *(12 pages)* 214206
Jae-Ho Han and Ki-Seok Kim

Structural, vibrational, and dynamic properties of Ge-Ga-Te liquids with increasing connectivity: A combined neutron scattering and molecular dynamics study *(13 pages)* 214207
H. Flores-Ruiz, M. Micoulaut, A. Piarristeguy, M.-V. Coulet, M. Johnson, G. J. Cuello, and A. Pradel

Theory of nonlinear microwave absorption by interacting two-level systems *(8 pages)* 214208
Alexander L. Burin and Andrii O. Maksymov

Spinful Aubry-André model in a magnetic field: Delocalization facilitated by a weak spin-orbit coupling *(11 pages)* 214209
Rajesh K. Malla and M. E. Raikh

Dynamics, dynamical systems, lattice effects:

Analyzing the spectral density of a perturbed analog quantum simulator using the Keldysh formalism *(11 pages)* 214301
Sebastian Zanker, Iris Schwenk, Jan-Michael Reiner, Juha Leppäkangas, and Michael Marthaler

Electromechanical quantum simulators *(13 pages)* 214302
F. Tacchino, A. Chiesa, M. D. LaHaye, S. Carretta, and D. Gerace

Antiresonant quantum transport in ac-driven molecular nanojunctions *(11 pages)* 214303
V. Leyton, S. Weiss, and M. Thorwart

Coherent phonons in a Bi_2Se_3 film generated by an intense single-cycle THz pulse *(10 pages)* 214304
A. A. Melnikov, K. N. Boldyrev, Yu. G. Selivanov, V. P. Martovitskii, S. V. Chekalin, and E. A. Ryabov

Generation of multiband spoof surface acoustic waves via high-order modes *(6 pages)* 214305
Li Ting Wu, Gang Yong Song, Wen Kang Cao, Qiang Cheng, Tie Jun Cui, and Yun Jing

Double-resonant Raman scattering with optical and acoustic phonons in carbon nanotubes *(6 pages)* 214306
Christoph Tyborski, Asmus Vierck, Rohit Narula, Valentin N. Popov, and Janina Maultzsch

Measurement of a phonon-polariton dispersion curve by varying the excitation wavelength *(6 pages)* 214307
Brittany E. Knighton, Blake S. Dastrup, Courtney L. Johnson, and Jeremy A. Johnson

Magnetism

Magnetic structures and magnetocaloric effect in RVO_4 (R = Gd, Nd) *(10 pages)* 214401
E. Palacios, M. Evangelisti, R. Sáez-Puche, A. J. Dos Santos-García, F. Fernández-Martínez, C. Cascales, M. Castro, R. Burriel, O. Fabelo, and J. A. Rodríguez-Velamazán

Gradual pressure-induced change in the magnetic structure of the noncollinear antiferromagnet Mn_3Ge *(7 pages)* 214402
A. S. Sukhanov, Sanjay Singh, L. Caron, Th. Hansen, A. Hoser, V. Kumar, H. Borrmann, A. Fitch, P. Devi, K. Manna, C. Felser, and D. S. Inosov

Spin-orbit torque in a completely compensated synthetic antiferromagnet *(7 pages)* 214403
P. X. Zhang, L. Y. Liao, G. Y. Shi, R. Q. Zhang, H. Q. Wu, Y. Y. Wang, F. Pan, and C. Song

Electronic and transport properties of a new quaternary Heusler alloy CoMnFeSi *(6 pages)* 214404
J. Kudrnovský, V. Drchal, S. K. Bose, and I. Turek

(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™

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 97, NUMBER 21 *CONTENTS* **JUNE 2018-1(I)**

ARTICLES

Structure, structural phase transitions, mechanical properties, defects

High-pressure phase diagram of hydrogen and deuterium sulfides from first principles: Structural and vibrational properties including quantum and anharmonic effects *(16 pages)* 214101
Raffaello Bianco, Ion Errea, Matteo Calandra, and Francesco Mauri

Field-induced polarization rotation and phase transitions in $0.70Pb(Mg_{1/3}Nb_{2/3})O_3$-$0.30PbTiO_3$ piezoceramics observed by *in situ* high-energy x-ray scattering *(9 pages)* 214102
Dong Hou, Tedi-Marie Usher, Lovro Fulanovic, Marko Vrabelj, Mojca Otonicar, Hana Ursic, Barbara Malic, Igor Levin, and Jacob L. Jones

Prolonged mixed phase induced by high pressure in MnRuP *(6 pages)* 214103
Raimundas Sereika, Wei Wu, Changyong Park, Curtis Kenney-Benson, Dale L. Brewe, Steve M. Heald, Jianbo Zhang, Sorb Yesudhas, Hongshan Deng, Bijuan Chen, Jianlin Luo, Yang Ding, and Ho-kwang Mao

Native point defects and impurities in hexagonal boron nitride *(13 pages)* 214104
L. Weston, D. Wickramaratne, M. Mackoit, A. Alkauskas, and C. G. Van de Walle

Thermodynamic properties of $MgSiO_3$ at super-Earth mantle conditions *(9 pages)* 214105
D. E. Fratanduono, M. Millot, R. G. Kraus, D. K. Spaulding, G. W. Collins, P. M. Celliers, and J. H. Eggert

Temperature dependence of the Gibbs energy of vacancy formation of fcc Ni *(8 pages)* 214106
Yilun Gong, Blazej Grabowski, Albert Glensk, Fritz Körmann, Jörg Neugebauer, and Roger C. Reed

Inhomogeneous, disordered, and partially ordered systems

Transition to exponential relaxation in weakly disordered electron glasses *(6 pages)* 214201
Z. Ovadyahu

Entanglement in a dephasing model and many-body localization *(10 pages)* 214202
Marko Žnidarič

Ab initio modeling of nonequilibrium electron-ion dynamics of iron in the warm dense matter regime *(12 pages)* 214203
T. Ogitsu, A. Fernandez-Pañella, S. Hamel, A. A. Correa, D. Prendergast, C. D. Pemmaraju, and Y. Ping

Bloch-Floquet waves in optical ring resonators *(5 pages)* 214204
Kathleen McGarvey-Lechable and Pablo Bianucci

Many-body localization transition with power-law interactions: Statistics of eigenstates *(11 pages)* 214205
K. S. Tikhonov and A. D. Mirlin

Copyright 2018 by American Physical Society

(Continued)

2469-9950(20180601)97:21;1-M

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).