PHYSICAL REVIEW B™

For editorial and subscription correspondence, please see inside front cover
(ISSN: 1098-0121)

PERIODICALS
Postmaster send address changes to:
APS Subscription Services
Suite 1NO1
2 Huntington Quadrangle
Melville, NY 11747-4502

THIRD SERIES, VOLUME 85, NUMBER 13 *CONTENTS* **APRIL 2012-1(I)**

BRIEF REPORTS

Structure, structural phase transitions, mechanical properties, defects

Structural and spectroscopic studies of $La_2Ce_2O_7$: Disordered fluorite versus pyrochlore structure *(5 pages)* 132101
Emily Reynolds, Peter E. R. Blanchard, Qingdi Zhou, Brendan J. Kennedy, Zhaoming Zhang, and Ling-Yun Jang

Dynamics, dynamical systems, lattice effects:

Measurement of the phonon density of states of PuO_2(+2% Ga): A critical test of theory *(3 pages)* 132301
M. E. Manley, J. R. Jeffries, A. H. Said, C. A. Marianetti, H. Cynn, B. M. Leu, and M. A. Wall

ARTICLES

Structure, structural phase transitions, mechanical properties, defects

Deep trap states in rubrene single crystals induced by ion radiation *(4 pages)* 134101
Tino Zimmerling, Kurt Mattenberger, Max Döbeli, Marius Johannes Simon, and Bertram Batlogg

Two-dimensional charge fluctuation in β-$Na_{0.33}V_2O_5$ *(4 pages)* 134102
Kenji Ohwada, Touru Yamauchi, Yasuhiko Fujii, and Yutaka Ueda

Structure and dynamics in amorphous tellurium and Te_n clusters: A density functional study *(12 pages)* 134103
J. Akola and R. O. Jones

Neutron scattering from the static and dynamic lattice of $SrCu_2(BO_3)_2$ in its Shastry-Sutherland singlet ground state *(7 pages)* 134104
S. Haravifard, B. D. Gaulin, Z. Yamani, S. R. Dunsiger, and H. A. Dabkowska

Phase diagram of mixed $Cu(In_xCr_{1-x})P_2S_6$ crystals *(6 pages)* 134105
A. Dziaugys, V. V. Shvartsman, J. Macutkevic, J. Banys, Yu. Vysochanskii, and W. Kleemann

First-principles study on phase stability of $MoSi_2$-$NbSi_2$ pseudobinary alloys *(6 pages)* 134106
Koretaka Yuge, Yuichiro Koizumi, Koji Hagihara, Takayoshi Nakano, Kyosuke Kishida, and Haruyuki Inui

High-resolution spectroscopy of single NV defects coupled with nearby ^{13}C nuclear spins in diamond *(7 pages)* 134107
A. Dréau, J.-R. Maze, M. Lesik, J.-F. Roch, and V. Jacques

Extreme Poisson's ratios and their electronic origin in B2 CsCl-type AB intermetallic compounds *(9 pages)* 134108
X. F. Wang, Travis E. Jones, W. Li, and Y. C. Zhou

Copyright 2012 by American Physical Society

1098-0121(20120401)85:13;1-X

(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 85, NUMBER 13** **APRIL 2012-1(I)**

Diffusion quantum Monte Carlo study of the equation of state and point defects in aluminum *(6 pages)* 134109
Randolph Q. Hood, P. R. C. Kent, and Fernando A. Reboredo

First-principles study of electronic, vibrational, elastic, and magnetic properties of FeF_2 as a function of pressure *(15 pages)* 134110
S. López-Moreno, A. H. Romero, J. Mejía-López, A. Muñoz, and Igor V. Roshchin

Giant magnetocapacitance of strained ferroelectric-ferromagnetic hybrids *(5 pages)* 134111
N. A. Pertsev, S. Prokhorenko, and B. Dkhil

Ferroelectric effects in individual $BaTiO_3$ nanocrystals investigated by electron holography *(6 pages)* 134112
Daniel Szwarcman, Axel Lubk, Martin Linck, Karin Vogel, Yossi Lereah, Hannes Lichte, and Gil Markovich

Tuning the structural instability of $SrTiO_3$ by Eu doping: The phase diagram of $Sr_{1-x}Eu_xTiO_3$ *(6 pages)* 134113
Zurab Guguchia, Alexander Shengelaya, Hugo Keller, Jürgen Köhler, and Annette Bussmann-Holder

α-β transformation and disorder in β-cristobalite silica *(7 pages)* 134114
Fenglin Yuan and Liping Huang

Inhomogeneous, disordered, and partially ordered systems

Emergence of glassy-like dynamics in an orientationally ordered phase *(7 pages)* 134201
M. Romanini, Ph. Negrier, J. Ll. Tamarit, S. Capaccioli, M. Barrio, L. C. Pardo, and D. Mondieig

Evidence of fivefold-coordinated Ge atoms in amorphous GeO_2 under pressure using inelastic x-ray scattering *(5 pages)* 134202
G. Lelong, L. Cormier, G. Ferlat, V. Giordano, G. S. Henderson, A. Shukla, and G. Calas

Pure Fulde-Ferrell-Larkin-Ovchinnikov state in optical lattices *(5 pages)* 134203
A-Hai Chen and Gao Xianlong

Neutron scattering investigation of high-frequency dynamics in glassy glucose *(7 pages)* 134204
N. Violini, A. Orecchini, A. Paciaroni, C. Petrillo, and F. Sacchetti

Dynamics, dynamical systems, lattice effects:

Uniform-acceptance force-bias Monte Carlo method with time scale to study solid-state diffusion *(9 pages)* 134301
Maarten J. Mees, Geoffrey Pourtois, Erik C. Neyts, Barend J. Thijsse, and André Stesmans

Anisotropic diffusion in FePt thin films *(7 pages)* 134302
F. Gröstlinger, M. Rennhofer, M. Leitner, E. Partyka-Jankowska, B. Sepiol, B. Laenens, N. Planckaert, and A. Vantomme

Magnetism

Stabilization of the high-spin state of Co^{3+} in $LaCo_{1-x}Rh_xO_3$ *(7 pages)* 134401
K. Knížek, J. Hejtmánek, M. Maryško, Z. Jirák, and J. Buršík

Spin dynamics of S-state ions in the filled skutterudites $La_{1-x}R_xPt_4Ge_{12}$ ($R = $Gd, Eu) *(8 pages)* 134402
F. A. Garcia, R. Gumeniuk, W. Schnelle, J. Sichelschmidt, A. Leithe-Jasper, Yu. Grin, and F. Steglich

Three-dimensional magnetism and coupling to the conduction electrons in $PdCrO_2$ *(5 pages)* 134403
Khuong P. Ong and David J. Singh

(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 85, NUMBER 13** **APRIL 2012-1(I)**

Tricritical point and suppression of the Shastry-Sutherland phase in $Ce_2(Pd_{1-x}Ni_x)_2Sn$ *(6 pages)* 134404
J. G. Sereni, G. Schmerber, M. Gómez Berisso, B. Chevalier, and J. P. Kappler

Muon spin relaxation and neutron scattering investigations of the noncentrosymmetric heavy-fermion antiferromagnet $CeRhGe_3$ *(13 pages)* 134405
A. D. Hillier, D. T. Adroja, P. Manuel, V. K. Anand, J. W. Taylor, K. A. McEwen, B. D. Rainford, and M. M. Koza

Magnetic frustration and iron-vacancy ordering in iron chalcogenide *(8 pages)* 134406
Chen Fang, Bao Xu, Pengcheng Dai, Tao Xiang, and Jiangping Hu

Finite-size scaling and boundary effects in two-dimensional valence-bond solids *(24 pages)* 134407
Anders W. Sandvik

Enhanced anisotropic spin fluctuations below tetragonal-to-orthorhombic transition in $LaFeAs(O_{1-x}F_x)$ probed by ^{75}As and ^{139}La NMR *(5 pages)* 134408
Yusuke Nakai, Shunsaku Kitagawa, Tetsuya Iye, Kenji Ishida, Yoichi Kamihara, Masahiro Hirano, and Hideo Hosono

Hydrogen-induced reversible spin-reorientation transition and magnetic stripe domain phase in bilayer Co on Ru(0001) *(6 pages)* 134409
Benito Santos, Silvia Gallego, Arantzazu Mascaraque, Kevin F. McCarty, Adrian Quesada, Alpha T. N'Diaye, Andreas K. Schmid, and Juan de la Figuera

Magnetic exchange interactions and antiferromagnetism of $ATcO_3$ (A = Ca, Sr, Ba) studied from first principles *(8 pages)* 134410
V. S. Borisov, I. V. Maznichenko, D. Böttcher, S. Ostanin, A. Ernst, J. Henk, and I. Mertig

Effect of lattice geometry on magnon Hall effect in ferromagnetic insulators *(11 pages)* 134411
T. Ideue, Y. Onose, H. Katsura, Y. Shiomi, S. Ishiwata, N. Nagaosa, and Y. Tokura

Heat transport of the quasi-one-dimensional Ising-like antiferromagnet $BaCo_2V_2O_8$ in longitudinal and transverse fields *(5 pages)* 134412
Z. Y. Zhao, X. G. Liu, Z. Z. He, X. M. Wang, C. Fan, W. P. Ke, Q. J. Li, L. M. Chen, X. Zhao, and X. F. Sun

Transport properties of a multichannel Kondo dot in a magnetic field *(4 pages)* 134413
Christoph B. M. Hörig and Dirk Schuricht

Nonlinear motion of magnetic vortex cores during fast magnetic pulses *(4 pages)* 134414
Keiki Fukumoto, Kuniaki Arai, Takashi Kimura, Yoshichika Otani, and Toyohiko Kinoshita

Density matrix renormalization group algorithm for Bethe lattices of spin-$\frac{1}{2}$ or spin-1 sites with Heisenberg antiferromagnetic exchange *(6 pages)* 134415
Manoranjan Kumar, S. Ramasesha, and Zoltán G. Soos

Plaquette order and deconfined quantum critical point in the spin-1 bilinear-biquadratic Heisenberg model on the honeycomb lattice *(6 pages)* 134416
H. H. Zhao, Cenke Xu, Q. N. Chen, Z. C. Wei, M. P. Qin, G. M. Zhang, and T. Xiang

Control of vortex pair states by post-deposition interlayer exchange coupling modification *(8 pages)* 134417
Sebastian Wintz, Thomas Strache, Michael Körner, Christopher Bunce, Anja Banholzer, Ingolf Mönch, Roland Mattheis, Jörg Raabe, Christoph Quitmann, Jeffrey McCord, Artur Erbe, Kilian Lenz, and Jürgen Fassbender

(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 85, NUMBER 13** **APRIL 2012-1(I)**

Magnetic neutron scattering on nanocomposites: Decrypting cross-section images using micromagnetic simulations *(5 pages)* 134418
Sergey Erokhin, Dmitry Berkov, Nataliya Gorn, and Andreas Michels

First-principles calculation of helical spin order in iron perovskite $SrFeO_3$ and $BaFeO_3$ *(5 pages)* 134419
Zhi Li, Robert Laskowski, Toshiaki Iitaka, and Takami Tohyama

Injection and detection of spin in a semiconductor by tunneling via interface states *(5 pages)* 134420
R. Jansen, A. M. Deac, H. Saito, and S. Yuasa

Phase diagram of the ferromagnetic shape memory alloys $Ni_2MnGa_{1-x}Co_x$ *(9 pages)* 134421
T. Kanomata, S. Nunoki, K. Endo, M. Kataoka, H. Nishihara, V. V. Khovaylo, R. Y. Umetsu, T. Shishido, M. Nagasako, R. Kainuma, and K. R. A. Ziebeck

Mapping spin-polarized transitions with atomic resolution *(8 pages)* 134422
P. Schattschneider, B. Schaffer, I. Ennen, and J. Verbeeck

Magnetic ordering and Kondo behavior in single-crystalline Ce_2NiSi_3 *(8 pages)* 134423
Maria Szlawska and Dariusz Kaczorowski

Hydrogen-induced ferromagnetism in ZnO single crystals investigated by magnetotransport *(10 pages)* 134424
M. Khalid and P. Esquinazi

Phase diagrams, distinct conformal anomalies, and thermodynamics of spin-1 bond-alternating Heisenberg antiferromagnetic chain in magnetic fields *(6 pages)* 134425
Xin Yan, Wei Li, Yang Zhao, Shi-Ju Ran, and Gang Su

Anisotropic magnetoresistance in an antiferromagnetic local-moment metal *(6 pages)* 134426
Huan Li

Spin-wave analysis of the transverse-field Ising model on the checkerboard lattice *(11 pages)* 134427
Louis-Paul Henry, Peter C. W. Holdsworth, Frédéric Mila, and Tommaso Roscilde

Electric field control of chiral magnetic domains in the high-temperature multiferroic CuO *(6 pages)* 134428
P. Babkevich, A. Poole, R. D. Johnson, B. Roessli, D. Prabhakaran, and A. T. Boothroyd

Evidence of high-spin Ru and universal magnetic anisotropy in $SrRuO_3$ thin films *(8 pages)* 134429
A. J. Grutter, F. J. Wong, E. Arenholz, A. Vailionis, and Y. Suzuki

Efficient hysteresis loop simulations of nanoparticle assemblies beyond the uniaxial anisotropy *(9 pages)* 134430
Alexandre Tamion, Edgar Bonet, Florent Tournus, Cécile Raufast, Arnaud Hillion, Oksana Gaier, and Véronique Dupuis

Field theory analysis of $S = 1$ antiferromagnetic bond-alternating chains in the dimer phase *(10 pages)* 134431
Junya Tamaki and Masaki Oshikawa

First-principles calculation of x-ray absorption spectra and x-ray magnetic circular dichroism of ultrathin Fe films on $BaTiO_3(001)$ *(8 pages)* 134432
St. Borek, I. Maznichenko, G. Fischer, W. Hergert, I. Mertig, A. Ernst, S. Ostanin, and A. Chassé

^{23}Na NMR study of sodium order in Na_xCoO_2 with 22 K Néel temperature *(11 pages)* 134433
H. Alloul, I. R. Mukhamedshin, A. V. Dooglav, Ya. V. Dmitriev, V.-C. Ciomaga, L. Pinsard-Gaudart, and G. Collin

(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 85, NUMBER 13** **APRIL 2012-1(I)**

Spin structure factor and thermodynamics in the antiferromagnetic transverse-field Ising model on the pyrochlore lattice *(5 pages)* 134434
Cheng-Ju Lin, Chen-Nan Liao, and Chyh-Hong Chern

Low-energy dynamics of a magnetic impurity in a quantum spin chain: Role of local levels *(10 pages)* 134435
A. A. Zvyagin

Experimental study of the x-ray linear dichroism of NiO films grown on Fe(001) *(7 pages)* 134436
Y. Z. Wu, B. Sinkovic, C. Won, J. Zhu, Y. Zhao, and Z. Q. Qiu

Determination of the magnetostrictive atomic environments in FeCoB alloys *(15 pages)* 134437
J. Díaz, C. Quirós, L. M. Alvarez-Prado, C. Aroca, R. Ranchal, M. Ruffoni, and S. Pascarelli

Absorption of microwaves by the one-dimensional spin-$\frac{1}{2}$ Heisenberg-Ising magnet *(22 pages)* 134438
Michael Brockmann, Frank Göhmann, Michael Karbach, Andreas Klümper, and Alexander Weiße

Ordering of the Heisenberg spin glass in four dimensions *(8 pages)* 134439
Hikaru Kawamura and Shinichirou Nishikawa

Ab initio study of spin-spiral noncollinear magnetism in a free-standing Fe(110) monolayer under in-plane strain *(7 pages)* 134440
Takahiro Shimada, Junichi Okuno, and Takayuki Kitamura

Transverse field Ising ferromagnetism in Mn_{12}-acetate-MeOH *(5 pages)* 134441
P. Subedi, A. D. Kent, Bo Wen, M. P. Sarachik, Y. Yeshurun, A. J. Millis, S. Mukherjee, and G. Christou

Antiferromagnetic order in the quasicrystal approximant Cd_6Tb studied by x-ray resonant magnetic scattering *(5 pages)* 134442
M. G. Kim, G. Beutier, A. Kreyssig, T. Hiroto, T. Yamada, J. W. Kim, M. de Boissieu, R. Tamura, and A. I. Goldman

Antiferromagnetic Kondo lattice $NpNi_2Sn$ *(5 pages)* 134443
M. Szlawska, K. Gofryk, J.-C. Griveau, E. Colineau, P. Gaczyński, R. Jardin, R. Caciuffo, and D. Kaczorowski

Magnetodielectric effects and spin-charge coupling in the spin-liquid candidate κ-$(BEDT\text{-}TTF)_2Cu_2(CN)_3$ *(8 pages)* 134444
Mario Poirier, Samuel Parent, Alex Côté, Kazuya Miyagawa, Kazushi Kanoda, and Yasuhiro Shimizu

Role of the apical oxygen in the low-temperature magnetoelectric effect in $R\mathrm{MnO}_3$ (R = Ho and Lu) *(4 pages)* 134445
J. Vermette, S. Jandl, M. Orlita, and M. M. Gospodinov

Symmetry and the macroscopic dynamics of antiferromagnetic materials in the presence of spin-polarized current *(10 pages)* 134446
Helen V. Gomonay, Roman V. Kunitsyn, and Vadim M. Loktev

Exchange bias induced by the Fe_3O_4 Verwey transition *(7 pages)* 134447
J. de la Venta, M. Erekhinsky, Siming Wang, K. G. West, R. Morales, and Ivan K. Schuller

Complete band gaps for magnetostatic forward volume waves in a two-dimensional magnonic crystal *(5 pages)* 134448
T. Schwarze, R. Huber, G. Duerr, and D. Grundler

(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 85, NUMBER 13** **APRIL 2012-1(I)**

Coupled phonons, magnetic excitations, and ferroelectricity in $AlFeO_3$: Raman and first-principles studies *(6 pages)* 134449
Pradeep Kumar, Achintya Bera, D. V. S. Muthu, Sharmila N. Shirodkar, Rana Saha, Ajmala Shireen, A. Sundaresan, U. V. Waghmare, A. K. Sood, and C. N. R. Rao

Small-angle neutron scattering study of magnetic ordering and inhomogeneity across the martensitic phase transformation in $Ni_{50-x}Co_xMn_{40}Sn_{10}$ alloys *(14 pages)* 134450
Kanwal Preet Bhatti, S. El-Khatib, Vijay Srivastava, R. D. James, and C. Leighton

Universal low-temperature tricritical point in metallic ferromagnets and ferrimagnets *(10 pages)* 134451
T. R. Kirkpatrick and D. Belitz

Superfluidity and superconductivity

Understanding the electric-field enhancement of the superconducting transition temperature for complex oxide interfaces *(7 pages)* 134501
Jason T. Haraldsen, Peter Wölfle, and Alexander V. Balatsky

Renormalization-group exponents for superconducting phases in two-leg ladders *(4 pages)* 134502
Yiwei Cai, Wen-Min Huang, and Hsiu-Hau Lin

Pressure dependence of the $BaFe_2As_2$ Fermi surface within the spin density wave state *(8 pages)* 134503
D. Graf, R. Stillwell, T. P. Murphy, J.-H. Park, E. C. Palm, P. Schlottmann, R. D. McDonald, J. G. Analytis, I. R. Fisher, and S. W. Tozer

Measurement and modeling of a large-area normal-metal/insulator/superconductor refrigerator with improved cooling *(13 pages)* 134504
Galen C. O'Neil, Peter J. Lowell, Jason M. Underwood, and Joel N. Ullom

Comparative study of the centrosymmetric and noncentrosymmetric superconducting phases of Re_3W using muon spin spectroscopy and heat capacity measurements *(7 pages)* 134505
P. K. Biswas, A. D. Hillier, M. R. Lees, and D. McK. Paul

Interplay of superconductivity and spin-dependent disorder *(9 pages)* 134506
R. Nanguneri, M. Jiang, T. Cary, G. G. Batrouni, and R. T. Scalettar

Non-Fermi-liquid transport phenomena and superconductivity driven by orbital fluctuations in iron pnictides: Analysis by fluctuation-exchange approximation *(6 pages)* 134507
Seiichiro Onari and Hiroshi Kontani

Measuring spectrum of spin wave using vortex dynamics *(4 pages)* 134508
Shi-Zeng Lin and Lev N. Bulaevskii

Quantum phase diffusion in ac-driven superconducting atomic point contacts *(7 pages)* 134509
M. F. Carusela and J. Ankerhold

Determination of the optical properties of $La_{2-x}Ba_xCuO_4$ for several dopings, including the anomalous $x = \frac{1}{8}$ phase *(16 pages)* 134510
C. C. Homes, M. Hücker, Q. Li, Z. J. Xu, J. S. Wen, G. D. Gu, and J. M. Tranquada

Fluxon dynamics of a long Josephson junction with two-gap superconductors *(13 pages)* 134511
Ju H. Kim, Bal-Ram Ghimire, and Hao-Yu Tsai

(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 85, NUMBER 13** **APRIL 2012-1(I)**

Probing the connections between superconductivity, stripe order, and structure in $La_{1.905}Ba_{0.095}Cu_{1-y}Zn_yO_4$ *(14 pages)* 134512
Jinsheng Wen, Zhijun Xu, Guangyong Xu, Qing Jie, M. Hücker, A. Zheludev, Wei Tian, B. L. Winn, J. L. Zarestky, D. K. Singh, Tao Hong, Qiang Li, Genda Gu, and J. M. Tranquada

Uniaxial linear resistivity of superconducting $La_{1.905}Ba_{0.095}CuO_4$ induced by an external magnetic field *(11 pages)* 134513
Jinsheng Wen, Qing Jie, Qiang Li, M. Hücker, M. v. Zimmermann, Su Jung Han, Zhijun Xu, D. K. Singh, R. M. Konik, Liyuan Zhang, Genda Gu, and J. M. Tranquada

Microscopic derivation of two-component Ginzburg-Landau model and conditions of its applicability in two-band systems *(8 pages)* 134514
Mihail Silaev and Egor Babaev

Superconductivity in the pseudogap region of $Bi_2Sr_{1.4}La_{0.6}CuO_{6+\delta}$ from angular-dependent torque measurements *(5 pages)* 134516
T. Hu, H. Xiao, P. Gyawali, H. H. Wen, and C. C. Almasan

Direct evidence of interchange between hole doping and Curie paramagnetism in underdoped $YBa_2Cu_3O_x$ *(8 pages)* 134517
J. Biscaras, B. Leridon, D. Colson, A. Forget, and P. Monod

$BaCu_3O_4$: High-temperature magnetic order in one-dimensional $S = \frac{1}{2}$ diamond chains *(5 pages)* 134518
C. W. Rischau, B. Leridon, D. Colson, A. Forget, and P. Monod

Luttinger-volume violating Fermi liquid in the pseudogap phase of the cuprate superconductors *(7 pages)* 134519
Jia-Wei Mei, Shinji Kawasaki, Guo-Qing Zheng, Zheng-Yu Weng, and Xiao-Gang Wen

Spin density wave induced disordering of the vortex lattice in superconducting $La_{2-x}Sr_xCuO_4$ *(7 pages)* 134520
J. Chang, J. S. White, M. Laver, C. J. Bowell, S. P. Brown, A. T. Holmes, L. Maechler, S. Strässle, R. Gilardi, S. Gerber, T. Kurosawa, N. Momono, M. Oda, M. Ido, O. J. Lipscombe, S. M. Hayden, C. D. Dewhurst, R. Vavrin, J. Gavilano, J. Kohlbrecher, E. M. Forgan, and J. Mesot

Q-scan analysis of the neutron scattering in iron-based superconductors *(7 pages)* 134521
Yuki Nagai and Kazuhiko Kuroki

Ni-impurity effects on the superconducting gap of $La_{2-x}Sr_xCuO_4$ studied from the magnetic field and temperature dependence of the electronic specific heat *(7 pages)* 134522
T. Kurosawa, N. Momono, M. Oda, and M. Ido

Alternating superconductor-insulator transport characteristics in a quantum vortex chain *(8 pages)* 134523
Yeshayahu Atzmon and Efrat Shimshoni

Two-dimensional arrays of superconducting strips as dc magnetic metamaterials *(9 pages)* 134524
Yasunori Mawatari, Carles Navau, and Alvaro Sanchez

Radiative annihilation of a soliton and an antisoliton in the coupled sine-Gordon equation *(9 pages)* 134525
V. M. Krasnov

Ordered phases and phase transitions in the fully frustrated XY model on a honeycomb lattice *(17 pages)* 134526
S. E. Korshunov

μSR studies of superconductivity in eutectically grown mixed ruthenates *(7 pages)* 134527
T. Shiroka, R. Fittipaldi, M. Cuoco, R. De Renzi, Y. Maeno, R. J. Lycett, S. Ramos, E. M. Forgan, C. Baines, A. Rost, V. Granata, and A. Vecchione

(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 85, NUMBER 13** **APRIL 2012-1(I)**

Exchange-field-modulated 0-π transition and chiral edge supercurrents in a superconductor/ferromagnetic topological insulator/superconductor junction *(6 pages)* 134528
Jianfei Zou and Guojun Jin

Effective ^{3}He interactions in dilute ^{3}He-^{4}He mixtures *(8 pages)* 134529
J. Rysti, J. Tuoriniemi, and A. Salmela

Superconducting Ga-overdoped Ge layers capped with SiO_2: Structural and transport investigations *(10 pages)* 134530
J. Fiedler, V. Heera, R. Skrotzki, T. Herrmannsdörfer, M. Voelskow, A. Mücklich, S. Facsko, H. Reuther, M. Perego, K.-H. Heinig, B. Schmidt, W. Skorupa, G. Gobsch, and M. Helm

Impurity-assisted Andreev reflection at a spin-active half metal-superconductor interface *(10 pages)* 134531
Francis B. Wilken and Piet W. Brouwer

Temperature and time scaling of the peak-effect vortex configuration in $FeTe_{0.7}Se_{0.3}$ *(11 pages)* 134532
Marco Bonura, Enrico Giannini, Romain Viennois, and Carmine Senatore

Specific heat and upper critical fields in KFe_2As_2 single crystals *(11 pages)* 134533
M. Abdel-Hafiez, S. Aswartham, S. Wurmehl, V. Grinenko, C. Hess, S.-L. Drechsler, S. Johnston, A. U. B. Wolter, B. Büchner, H. Rosner, and L. Boeri

Thermally assisted penetration and exclusion of single vortex in mesoscopic superconductors *(7 pages)* 134534
Shi-Zeng Lin, Takahiro Nishio, Lev N. Bulaevskii, Matthias J. Graf, and Yukio Hasegawa

Unconventional rf photoresponse from a superconducting spiral resonator *(8 pages)* 134535
Alexander P. Zhuravel, Cihan Kurter, Alexey V. Ustinov, and Steven M. Anlage

ERRATA

Erratum: Spin Josephson effect with a single superconductor [Phys. Rev. B **83**, 180504(R) (2011)] *(1 page)* . . . . . 139901(E)
P. M. R. Brydon, Yasuhiro Asano, and Carsten Timm

Publisher's Note: Circumstantial evidence for hydrogen-induced surface magnetism on Pd(110) [Phys. Rev. B **85**, 094428 (2012)] *(1 page)* . . . . . 139902(E)
P. Amann, M. Cordin, J. Redinger, S. D. Stolwijk, K. Zumbrägel, M. Donath, E. Bertel, and A. Menzel

Erratum: Von Neumann entropy and bipartite number fluctuation in quantum phase transitions [Phys. Rev. B **83**, 113104 (2011)] *(2 pages)* . . . . . 139903(E)
Myung-Hoon Chung and D. P. Landau

Erratum: Properties of a two-orbital model for oxypnictide superconductors: Magnetic order, B_{2g} spin-singlet pairing channel, and its nodal structure [Phys. Rev. B **79**, 134502 (2009)] *(1 page)* . . . . . 139904(E)
A. Moreo, M. Daghofer, J. A. Riera, and E. Dagotto

Publisher's Note: Persistent electrical doping of $Bi_2Sr_2CaCu_2O_{8+x}$ mesa structures [Phys. Rev. B **85**, 144519 (2012)] *(1 page)* . . . . . 139905(E)
Holger Motzkau, Thorsten Jacobs, Sven-Olof Katterwe, Andreas Rydh, and Vladimir M. Krasnov

Publisher's Note: Quantum Hall effect in exfoliated graphene affected by charged impurities: Metrological measurements [Phys. Rev. B **85**, 165420 (2012)] *(1 page)* . . . . . 139906(E)
J. Guignard, D. Leprat, D. C. Glattli, F. Schopfer, and W. Poirier

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).