

CONTENTS - *Continued*

PHYSICAL REVIEW B

THIRD SERIES, VOLUME 88, NUMBER 6

AUGUST 2013-1(II)

Nonadiabatic processes in Majorana qubit systems (<i>13 pages</i>)	064515
M. S. Scheurer and A. Shnirman	
Theory of fluctuating charge ordering in the pseudogap phase of cuprates via a preformed pair approach (<i>5 pages</i>)	064516
Yan He, Peter Scherpelz, and K. Levin	
Pressure dependence of superconductivity in simple cubic phosphorus (<i>10 pages</i>)	064517
Kevin T. Chan, Brad D. Malone, and Marvin L. Cohen	
Supercurrent on a vortex core in $2H\text{-NbSe}_2$: Current-driven scanning tunneling spectroscopy measurements (<i>5 pages</i>)	064518
A. Maldonado, S. Vieira, and H. Suderow	
Field-induced reentrant superconductivity in thin films of nodal superconductors (<i>8 pages</i>)	064519
M. Hachiya, K. Aoyama, and R. Ikeda	

Superfluidity and superconductivity

In-plane superfluid density and microwave conductivity of the organic superconductor κ -(BEDT-TTF) ₂ Cu[N(CN) ₂]Br: Evidence for <i>d</i> -wave pairing and resilient quasiparticles (6 pages)	064501
S. Milbradt, A. A. Bardin, C. J. S. Truncik, W. A. Huttema, A. C. Jacko, P. L. Burn, S.-C. Lo, B. J. Powell, and D. M. Broun	
Influence of spin fluctuations on the thermal conductivity in superconducting Ba(Fe _{1-x} Co _x) ₂ As ₂ (7 pages)	064502
Andrew F. May, Michael A. McGuire, Jonathan E. Mitchell, Athena S. Sefat, and Brian C. Sales	
Pressure-induced enhancement of superconductivity and suppression of semiconducting behavior in LnO _{0.5} F _{0.5} BiS ₂ (Ln = La,Ce) compounds (8 pages)	064503
C. T. Wolowiec, D. Yazici, B. D. White, K. Huang, and M. B. Maple	
 Distinguishing $s^{\pm}$ and s^{++} electron pairing symmetries by neutron spin resonance in superconducting NaFe _{0.935} Co _{0.045} As (8 pages)	064504
Chenglin Zhang, H.-F. Li, Yu Song, Yixi Su, Guotai Tan, Tucker Netherton, Caleb Redding, Scott V. Carr, Oleg Sobolev, Astrid Schneidewind, Enrico Faulhaber, L. W. Harriger, Shiliang Li, Xingye Lu, Dao-Xin Yao, Tanmoy Das, A. V. Balatsky, Th. Brückel, J. W. Lynn, and Pengcheng Dai	
 Band structure effects on the superconductivity in Hubbard models (14 pages)	064505
Weejee Cho, Ronny Thomale, Srinivas Raghu, and Steven A. Kivelson	
Density of states of disordered topological superconductor-semiconductor hybrid nanowires (7 pages)	064506
Jay D. Sau and S. Das Sarma	
Interaction effect on topological classification of superconductors in two dimensions (5 pages)	064507
Hong Yao and Shinsei Ryu	
Thickness dependence of the superconducting critical temperature in heavily doped Si:B epilayers (6 pages)	064508
A. Grockowiak, T. Klein, H. Cercellier, F. Lévy-Bertrand, X. Blase, J. Kačmarčík, T. Kociniewski, F. Chiodi, D. Débarre, G. Prudon, C. Dubois, and C. Marcenat	
Majorana fermion induced nonlocal current correlations in spin-orbit coupled superconducting wires (7 pages)	064509
Jie Liu, Fu-Chun Zhang, and K. T. Law	
Weak coupling BCS-like superconductivity in the pnictide oxide Ba _{1-x} Na _x Ti ₂ Sb ₂ O ($x = 0$ and 0.15) (5 pages)	064510
Melissa Gooch, Phuong Doan, Zhongjia Tang, Bernd Lorenz, Arnold M. Guloy, and Paul C. W. Chu	
Observation of individual macroscopic quantum tunneling events in superconducting nanowires (7 pages)	064511
Meenakshi Singh and Moses H. W. Chan	
Local superfluidity at the nanoscale (6 pages)	064512
B. Kulchytskyy, G. Gervais, and A. Del Maestro	
Thermal expansion of CaFe ₂ As ₂ : Effect of cobalt doping and postgrowth thermal treatment (7 pages)	064513
Sergey L. Bud'ko, Sheng Ran, and Paul C. Canfield	
Majorana fermions on the Abrikosov flux lattice in a $p_x + ip_y$ superconductor (6 pages)	064514
M. A. Silaev	

(Continued)

CONTENTS - Continued

PHYSICAL REVIEW B

THIRD SERIES, VOLUME 88, NUMBER 6

AUGUST 2013-1(II)

Hybrid anomalous and planar Nernst effect in permalloy thin films (6 pages)	064410
S. L. Yin, Q. Mao, Q. Y. Meng, D. Li, and H. W. Zhao	
Co monolayers and adatoms on Pd(100), Pd(111), and Pd(110): Anisotropy of magnetic properties (14 pages) . . .	064411
O. Šipr, S. Bornemann, H. Ebert, S. Mankovsky, J. Vackář, and J. Minár	
Cluster-glass behavior induced by local moment doping in the itinerant ferromagnet $\text{Sc}_{3.1}\text{In}$ (7 pages)	064412
E. Svanidze and E. Morosan	
Turbulent fronts of quantum detonation in molecular magnets (4 pages)	064413
D. A. Garanin	
Dependence of spin-pumping spin Hall effect measurements on layer thicknesses and stacking order (8 pages) . . .	064414
V. Vlaminck, J. E. Pearson, S. D. Bader, and A. Hoffmann	
Orbital magnetism and magnetic anisotropy in thin-film ferromagnets disturbed from the ground state (6 pages)	064415
L. M. Sandratskii	
Manipulation of ferromagnets via the spin-selective optical Stark effect (5 pages)	064416
Alireza Qaiumzadeh, Gerrit E. W. Bauer, and Arne Brataas	
Magnetic-texture-controlled transverse spin injection (5 pages)	064417
E. van der Bijl, R. E. Troncoso, and R. A. Duine	
Cobalt magnetism in a superstructured metallic antiferromagnet $\text{Na}_{0.825}\text{CoO}_2$ (6 pages)	064418
Ben-Li Young, P.-Y. Chu, J. Y. Juang, G. J. Shu, and F. C. Chou	
Magnetic phase diagram of low-doped $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$ thin films studied by low-energy muon-spin rotation (11 pages)	064419
E. Stilp, A. Suter, T. Prokscha, E. Morenzoni, H. Keller, B. M. Wojek, H. Luetkens, A. Gozar, G. Logvenov, and I. Božović	
Asymmetric ferromagnetic resonance, universal Walker breakdown, and counterflow domain wall motion in the presence of multiple spin-orbit torques (12 pages)	064420
Jacob Linder and Mohammad Alidoust	
Field-induced phase transitions in the helimagnet $\text{Ba}_2\text{CuGe}_2\text{O}_7$ (15 pages)	064421
J. Chovan, M. Marder, and N. Papanicolaou	
Itinerant origin of the ferromagnetic quantum critical point in $\text{Fe}(\text{Ga},\text{Ge})_3$ (7 pages)	064422
David J. Singh	
μSR study of magnetic order in the organic quasi-one-dimensional ferromagnet F4BImNN (6 pages)	064423
Stephen J. Blundell, Johannes S. Möller, Tom Lancaster, Peter J. Baker, Francis L. Pratt, Gonca Seber, and Paul M. Lahti	
Pressure-tuned exchange bias and coercivity in Ru-doped CaMnO_3 (8 pages)	064424
I. Fita, V. Markovich, A. Wisniewski, R. Puzniak, C. Martin, V. N. Varyukhin, and G. Gorodetsky	
 Nanoscale multifunctional sensor formed by a Ni nanotube and a scanning Nb nanoSQUID (7 pages)	064425
J. Nagel, A. Buchter, F. Xue (薛飞), O. F. Kieler, T. Weimann, J. Kohlmann, A. B. Zorin, D. Rüffer, E. Russo-Averchi, R. Huber, P. Berberich, A. Fontcuberta i Morral, D. Grundler, R. Kleiner, D. Koelle, M. Poggio, and M. Kemmler	

(Continued)

Charge and spin correlations of a Peierls insulator after a quench (<i>6 pages</i>)	064303
Martin Hohenadler	
 Classifying and measuring geometry of a quantum ground state manifold (<i>17 pages</i>)	064304
Michael Kolodrubetz, Vladimir Gritsev, and Anatoli Polkovnikov	
Threshold behavior and operating regimes of an optically driven phonon laser: Semiclassical theory (<i>6 pages</i>) . . .	064305
Julia Kabuss, Alexander Carmele, and Andreas Knorr	
Atomistic study of soft-mode dynamics in PbTiO_3 (<i>5 pages</i>)	064306
B. K. Mani, C.-M. Chang, and I. Ponomareva	
Origin of coherent phonons in Bi_2Te_3 excited by ultrafast laser pulses (<i>6 pages</i>)	064307
Yaguo Wang, Liang Guo, Xianfan Xu, Jonathan Pierce, and Rama Venkatasubramanian	
On-chip cavity quantum phonodynamics with an acceptor qubit in silicon (<i>7 pages</i>)	064308
Rusko Ruskov and Charles Tahan	
Magnetism	
Realization of stripes and slabs in two and three dimensions (<i>3 pages</i>)	064401
Alessandro Giuliani, Elliott H. Lieb, and Robert Seiringer	
Double resonance response in nonlinear magnetic vortex dynamics (<i>7 pages</i>)	064402
J.-S. Kim, M. Kläui, M. V. Fistul, J. Yoon, C.-Y. You, R. Mattheis, C. Ulysse, and G. Faini	
Spin pumping and inverse spin Hall effect in germanium (<i>15 pages</i>)	064403
J.-C. Rojas-Sánchez, M. Cubukcu, A. Jain, C. Vergnaud, C. Portemont, C. Ducruet, A. Barski, A. Marty, L. Vila, J.-P. Attané, E. Augendre, G. Desfonds, S. Gambarelli, H. Jaffrès, J.-M. George, and M. Jamet	
^{57}Fe NMR study of the magnetoelectric hexaferrite $\text{Ba}_{0.5}\text{Sr}_{1.5}\text{Zn}_2\text{Fe}_{12}\text{O}_{22}$ and $\text{Ba}_{0.5}\text{Sr}_{1.5}\text{Zn}_2(\text{Fe}_{0.92}\text{Al}_{0.08})_{12}\text{O}_{22}$ (<i>4 pages</i>)	064404
Sangil Kwon, Dong Young Yoon, Soonchil Lee, Yi Sheng Chai, Sae Hwan Chun, and Kee Hoon Kim	
Hyperfine structure of magnetic excitations in a Tb-based single-molecule magnet studied by high-resolution neutron spectroscopy (<i>7 pages</i>)	064405
M. Kofu, O. Yamamuro, T. Kajiwara, Y. Yoshimura, M. Nakano, K. Nakajima, S. Ohira-Kawamura, T. Kikuchi, and Y. Inamura	
Magnetic properties in layered ACo_2Se_2 ($A = \text{K}, \text{Rb}, \text{Cs}$) with the ThCr_2Si_2 -type structure (<i>9 pages</i>)	064406
Jinhu Yang, Bin Chen, Hangdong Wang, Qianhui Mao, Masaki Imai, Kazuyoshi Yoshimura, and Minghu Fang	
Theory of network contractor dynamics for exploring thermodynamic properties of two-dimensional quantum lattice models (<i>8 pages</i>)	064407
Shi-Ju Ran, Bin Xi, Tao Liu, and Gang Su	
Landau-Lifshitz theory of the longitudinal spin Seebeck effect (<i>8 pages</i>)	064408
Silas Hoffman, Koji Sato, and Yaroslav Tserkovnyak	
Topological Nernst effect in a three-dimensional skyrmion-lattice phase (<i>5 pages</i>)	064409
Y. Shiomi, N. Kanazawa, K. Shibata, Y. Onose, and Y. Tokura	

(Continued)

Reentrant topological phase transitions in a disordered spinless superconducting wire (<i>4 pages</i>)	060509(R)
Maria-Theresa Rieder, Piet W. Brouwer, and İnanç Adagideli	
☞ Coherence factors beyond the BCS result (<i>5 pages</i>)	060510(R)
G. Gorohovsky and E. Bettelheim	

ARTICLES

Structure, structural phase transitions, mechanical properties, defects

Screened environment-dependent reactive empirical bond-order potential for atomistic simulations of carbon materials (<i>12 pages</i>)	064101
Romain Perriot, Xiang Gu, You Lin, Vasily V. Zhakhovsky, and Ivan I. Oleynik	
Ferroelectric domains and diffuse transitions in ultrathin films of PbTiO ₃ : Effects of strain and electrodes (<i>6 pages</i>)	064102
Summayya Kouser, Takeshi Nishimatsu, and Umesh V. Waghmare	
Periodic elastic nanodomains in ultrathin tetragonal-like BiFeO ₃ films (<i>6 pages</i>)	064103
Zhenlin Luo, Zuhuang Chen, Yuanjun Yang, Heng-Jui Liu, Chuanwei Huang, Haoliang Huang, Haibo Wang, Meng-Meng Yang, Chuansheng Hu, Guoqiang Pan, Wen Wen, Xiaolong Li, Qing He, Thirumany Sritharan, Ying-Hao Chu, Lang Chen, and Chen Gao	
Effect of strain on the stacking fault energy of copper: A first-principles study (<i>9 pages</i>)	064104
P. S. Branicio, J. Y. Zhang, and D. J. Srolovitz	
☞ Phonon cooling and lasing with nitrogen-vacancy centers in diamond (<i>12 pages</i>)	064105
K. V. Kepsidis, S. D. Bennett, S. Portolan, M. D. Lukin, and P. Rabl	
Possible origin of the discrepancy in Peierls stresses of fcc metals: First-principles simulations of dislocation mobility in aluminum (<i>10 pages</i>)	064106
Ilgyou Shin and Emily A. Carter	
Equation of state of α -Al ₂ O ₃ (<i>5 pages</i>)	064107
A. Dewaele and M. Torrent	

Inhomogeneous, disordered, and partially ordered systems

Caged clusters in Al ₁₁ Ir ₄ : Structural transition and insulating phase (<i>10 pages</i>)	064201
Marek Mihalkovič and C. L. Henley	
Charge localization on a polymer surface measured by triboelectrically induced x-ray emission (<i>5 pages</i>)	064202
Adam L. Collins, Carlos G. Camara, Brian B. Naranjo, Seth J. Putterman, and Jonathan R. Hird	
☞ Coherent potential approximation for diffusion and wave propagation in topologically disordered systems (<i>11 pages</i>)	064203
S. Köhler, G. Ruocco, and W. Schirmacher	

Dynamics, dynamical systems, lattice effects:

Electron energy loss and inelastic x-ray scattering cross sections from time-dependent density-functional perturbation theory (<i>10 pages</i>)	064301
Iurii Timrov, Nathalie Vast, Ralph Gebauer, and Stefano Baroni	
☞ Nonlinear thermoelectricity in point contacts at pinch off: A catastrophe aids cooling (<i>7 pages</i>)	064302
Robert S. Whitney	

(Continued)

Prediction of a multiferroic state with large electric polarization in tensile-strained TbMnO ₃ (5 pages)	060406(R)
Y. S. Hou, J. H. Yang, X. G. Gong, and H. J. Xiang	
Ferromagnetism with $T_C = 200$ K in the amorphous 5f compound UH ₃ Mo _{0.18} (5 pages)	060407(R)
I. Tkach, S. Mašková, Z. Matěj, N.-T. H. Kim-Ngan, A. V. Andreev, and L. Havela	
 Probing magnetic order in CuFeO ₂ through nuclear forward scattering in high magnetic fields (5 pages)	060408(R)
C. Strohm, T. T. A. Lummen, I. P. Handayani, T. Roth, C. Detlefs, P. J. E. M. van der Linden, and P. H. M. van Loosdrecht	
Multiferroicity in the generic easy-plane triangular lattice antiferromagnet RbFe(MoO ₄) ₂ (5 pages)	060409(R)
J. S. White, Ch. Niedermayer, G. Gasparovic, C. Broholm, J. M. S. Park, A. Ya. Shapiro, L. A. Demianets, and M. Kenzelmann	
Photoinduced dynamics in spinel and pyrochlore vanadates as Mott-Hubbard insulators with magnetic ordering (5 pages)	060410(R)
A. Furuhashi, H. Nishihara, K. Takubo, and T. Katsufuji	
Magnetic order in the pyrochlore iridate Nd ₂ Ir ₂ O ₇ probed by muon spin relaxation (5 pages)	060411(R)
Hanjie Guo, Kazuyuki Matsuhira, Ikuto Kawasaki, Makoto Wakeshima, Yukio Hinatsu, Isao Watanabe, and Zhu-an Xu	
Linear magnetoconductivity in multiband spin-density-wave metals with nonideal nesting (4 pages)	060412(R)
A. E. Koshelev	
Superfluidity and superconductivity	
Switching of intra-orbital spin excitations in electron-doped iron pnictide superconductors (5 pages)	060501(R)
Soshi Iimura, Satoru Matsuishi, Masashi Miyakawa, Takashi Taniguchi, Katsuhiro Suzuki, Hidetomo Usui, Kazuhiko Kuroki, Ryoichi Kajimoto, Mitsutaka Nakamura, Yasuhiro Inamura, Kazuhiko Ikeuchi, Sungdae Ji, and Hideo Hosono	
Strong- versus weak-coupling paradigms for cuprate superconductivity (4 pages)	060502(R)
Shahaf Asban, Meni Shay, Muntaser Naamneh, Tal Kirzhner, and Amit Keren	
 Autler-Townes splitting in a three-dimensional transmon superconducting qubit (5 pages)	060503(R)
S. Novikov, J. E. Robinson, Z. K. Keane, B. Suri, F. C. Wellstood, and B. S. Palmer	
Majorana flat bands and unidirectional Majorana edge states in gapless topological superconductors (5 pages) . . .	060504(R)
Chris L. M. Wong, Jie Liu, K. T. Law, and Patrick A. Lee	
Diamagnetism of YBa ₂ Cu ₃ O _{6+x} crystals above T_c : Evidence for Gaussian fluctuations (5 pages)	060505(R)
I. Kokanović, D. J. Hills, M. L. Sutherland, R. Liang, and J. R. Cooper	
 Aharonov-Casher effect for plasmons in a ring of Josephson junctions (5 pages)	060506(R)
Roman Süssstrunk, Ion Garate, and Leonid I. Glazman	
Local structure, stripe pinning, and superconductivity in La _{1.875} Ba _{0.125} CuO ₄ at high pressure (5 pages)	060507(R)
G. Fabbri, M. Hücker, G. D. Gu, J. M. Tranquada, and D. Haskel	
 New collective mode in YBa ₂ Cu ₃ O _{6+x} observed by time-domain reflectometry (5 pages)	060508(R)
J. P. Hinton, J. D. Koralek, Y. M. Lu, A. Vishwanath, J. Orenstein, D. A. Bonn, W. N. Hardy, and Ruixing Liang	

(Continued)

RAPID COMMUNICATIONS

Structure, structural phase transitions, mechanical properties, defects

Photon energy dependence of graphitization threshold for diamond irradiated with an intense XUV FEL pulse (4 pages) 060101(R)

J. Gaudin, N. Medvedev, J. Chalupský, T. Burian, S. Dastjani-Farahani, V. Hájková, M. Harmand, H. O. Jeschke, L. Juha, M. Jurek, D. Klinger, J. Krzywinski, R. A. Loch, S. Moeller, M. Nagasono, C. Ozkan, K. Saksl, H. Sinn, R. Sobierajski, P. Sovák, S. Toleikis, K. Tiedtke, M. Toufarová, T. Tschentscher, V. Vorlíček, L. Vyšín, H. Wabnitz, and B. Ziaja

Electric control of the magnetization in BiFeO₃/LaFeO₃ superlattices (5 pages) 060102(R)
Zeila Zanolli, Jacek C. Wojdeł, Jorge Íñiguez, and Philippe Ghosez

 Negative magnetostrictive magnetoelectric coupling of BiFeO₃ (5 pages) 060103(R)
 Sanghyun Lee, M. T. Fernandez-Diaz, H. Kimura, Y. Noda, D. T. Adroja, Seongsu Lee, Junghwan Park, V. Kiryukhin, S.-W. Cheong, M. Mostovoy, and Je-Geun Park

Dynamics, dynamical systems, lattice effects:

Effect of dispersive optical phonons on the behavior of a Holstein polaron (4 pages) 060301(R)
Dominic J. J. Marchand and Mona Berciu

Magnetism

 Magnetic fluctuations and spin freezing in nonsuperconducting LiFeAs derivatives (5 pages) 060401(R)
J. D. Wright, M. J. Pitcher, W. Trevelyan-Thomas, T. Lancaster, P. J. Baker, F. L. Pratt, S. J. Clarke, and S. J. Blundell

 Direct evidence for a gapless Z₂ spin liquid by frustrating Néel antiferromagnetism (5 pages) 060402(R)
Wen-Jun Hu, Federico Becca, Alberto Parola, and Sandro Sorella

Change of magnetic ground state by light electron doping in CeOs₂Al₁₀ (4 pages) 060403(R)
D. D. Khalyavin, D. T. Adroja, P. Manuel, J. Kawabata, K. Umeo, T. Takabatake, and A. M. Strydom

Quantum motion and level quantization of a skyrmion in a pinning potential in chiral magnets (5 pages) 060404(R)
Shi-Zeng Lin and Lev N. Bulaevskii

Impact of lattice strain on the tunnel magnetoresistance in Fe/insulator/Fe and Fe/insulator/La_{0.67}Sr_{0.33}MnO₃ magnetic tunnel junctions (5 pages) 060405(R)
A. Useinov, Y. Saeed, N. Singh, N. Useinov, and U. Schwingenschlög

