

CONTENTS - Continued

PHYSICAL REVIEW B

THIRD SERIES, VOLUME 85, NUMBER 17

MAY 2012-1(I)

Fluctuation conductivity in disordered superconducting films (<i>14 pages</i>)	174527
Konstantin S. Tikhonov, Georg Schwiete, and Alexander M. Finkel'stein	
Strong-coupling superconductivity with mixed even- and odd-frequency pairing (<i>11 pages</i>)	174528
Hiroaki Kusunose, Masashige Matsumoto, and Mikito Koga	
Probing interfacial pair breaking in tunnel junctions based on the first and the second harmonics of the Josephson current (<i>6 pages</i>)	174529
Yu. S. Barash	
Magnetic torque studies on FFLO phase in magnetic-field-induced organic superconductor λ -(BETS) ₂ FeCl ₄ (<i>6 pages</i>)	174530
S. Uji, K. Kodama, K. Sugii, T. Terashima, Y. Takahide, N. Kurita, S. Tsuchiya, M. Kimata, A. Kobayashi, B. Zhou, and H. Kobayashi	
Electronic topological transition in LaSn ₃ under pressure (<i>8 pages</i>)	174531
Swetarekha Ram, V. Kanchana, G. Vaitheeswaran, A. Svane, S. B. Dugdale, and N. E. Christensen	
 Properties of edge states in a spin-triplet two-band superconductor (<i>8 pages</i>)	174532
Yoshiki Imai, Katsunori Wakabayashi, and Manfred Sigrist	
Majorana qubit decoherence by quasiparticle poisoning (<i>10 pages</i>)	174533
Diego Rainis and Daniel Loss	

ERRATA

Publisher's Note: Specific heat and upper critical fields in KFe ₂ As ₂ single crystals [Phys. Rev. B 85 , 134533 (2012)] (<i>1 page</i>)	179901(E)
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	
Publisher's Note: First-principles calculation of x-ray absorption spectra and x-ray magnetic circular dichroism of ultrathin Fe films on BaTiO ₃ (001) [Phys. Rev. B 85 , 134432 (2012)] (<i>1 page</i>)	179902(E)
St. Borek, I. V. Maznichenko, G. Fischer, W. Hergert, I. Mertig, A. Ernst, S. Ostanin, and A. Chassé	
Publisher's Note: ¹ H-NMR study of the spin dynamics of fine superparamagnetic nanoparticles [Phys. Rev. B 85 , 174426 (2012)] (<i>1 page</i>)	179903(E)
L. Bordonali, Y. Furukawa, M. Kraken, F. J. Litterst, C. Sangregorio, M. F. Casula, and A. Lascialfari	

CONTENTS - *Continued*

PHYSICAL REVIEW B

THIRD SERIES, VOLUME 85, NUMBER 17

MAY 2012-1(I)

Kondo effect and spin-active scattering in ferromagnet-superconductor junctions (<i>12 pages</i>)	174512
H. Soller, L. Hofstetter, S. Csonka, A. Levy Yeyati, C. Schönerberger, and A. Komnik	
Phase slippage driven dissipation and high-field Little-Parks effect in superconducting MoGe nanowire networks formed on nanoporous substrates (<i>7 pages</i>)	174513
Q. Luo, X. Q. Zeng, M. E. Mischczak, Z. L. Xiao, J. Pearson, T. Xu, and W. K. Kwok	
Type-I superconductivity in ScGa ₃ and LuGa ₃ single crystals (<i>5 pages</i>)	174514
E. Svanidze and E. Morosan	
Influence of two-level fluctuators on adiabatic passage techniques (<i>8 pages</i>)	174515
Nicolas Vogt, Jared H. Cole, Michael Marthaler, and Gerd Schön	
Kinetic roughening of magnetic flux fronts in Bi ₂ Sr ₂ CaCu ₂ O _{8+δ} crystals with columnar defects (<i>5 pages</i>)	174516
D. Barness, Y. Efraim, H. Taitelbaum, M. Sinvani, A. Shaulov, and Y. Yeshurun	
Critical behavior at depinning of driven disordered vortex matter in 2H-NbS ₂ (<i>5 pages</i>)	174517
Gorky Shaw, Pabitra Mandal, S. S. Banerjee, A. Niazi, A. K. Rastogi, A. K. Sood, S. Ramakrishnan, and A. K. Grover	
Electron cooling in diffusive normal metal-superconductor tunnel junctions with a spin-valve ferromagnetic interlayer (<i>8 pages</i>)	174518
A. Ozaeta, A. S. Vasenko, F. W. J. Hekking, and F. S. Bergeret	
Modeling the role of the fluorine dopant in the magnetic phase diagram of LaFeAsO _{1-x} F _x superconductors (<i>5 pages</i>)	174519
Harry I. Fisher and Feliciano Giustino	
Model of collective modes in three-band superconductors with repulsive interband interactions (<i>5 pages</i>)	174520
Valentin Stanev	
 Spectroscopy of low-frequency noise and its temperature dependence in a superconducting qubit (<i>10 pages</i>)	174521
Fei Yan, Jonas Bylander, Simon Gustavsson, Fumiki Yoshihara, Khalil Harrabi, David G. Cory, Terry P. Orlando, Yasunobu Nakamura, Jaw-Shen Tsai, and William D. Oliver	
Electrodynamics of BaFe ₂ As ₂ from infrared measurements under pressure (<i>6 pages</i>)	174522
L. Baldassarre, A. Perucchi, P. Postorino, S. Lupi, C. Marini, L. Malavasi, J. Jiang, J. D. Weiss, E. E. Hellstrom, I. Pallecchi, and P. Dore	
Correlation between superconductivity and antiferromagnetism in Rb _{0.8} Fe _{2-y} Se _{2-x} Te _x single crystals (<i>5 pages</i>)	174523
Dachun Gu, Liling Sun, Qi Wu, Chao Zhang, Jing Guo, Peiwen Gao, Yue Wu, Xiaoli Dong, Xi Dai, and Zhongxian Zhao	
Two-band superconductivity featuring different anisotropies in the ternary iron silicide Lu ₂ Fe ₃ Si ₅ (<i>5 pages</i>)	174524
Yasuyuki Nakajima, Hikaru Hidaka, Tsuyoshi Nakagawa, Tsuyoshi Tamegai, Terukazu Nishizaki, Takahiko Sasaki, and Norio Kobayashi	
Suppression of superconductivity at a nematic critical point in underdoped cuprates (<i>6 pages</i>)	174525
Guo-Zhu Liu, Jing-Rong Wang, and Jing Wang	
Cross-sections of Andreev scattering by quantized vortex rings in ³ He-B (<i>7 pages</i>)	174526
N. Suramlshvili, A. W. Baggaley, C. F. Barenghi, and Y. A. Sergeev	

(Continued)

Coherent control of terahertz radiation from antiferromagnetic magnons in NiO excited by optical laser pulses (5 pages)	174439
Junichi Nishitani, Takeshi Nagashima, and Masanori Hangyo	
Transport of magnetic microparticles via tunable stationary magnetic traps in patterned wires (8 pages)	174440
G. Vieira, A. Chen, T. Henighan, J. Lucy, F. Y. Yang, and R. Sooryakumar	
Magnetic order and the electronic ground state in the pyrochlore iridate $\text{Nd}_2\text{Ir}_2\text{O}_7$ (4 pages)	174441
S. M. Disseler, Chetan Dhital, T. C. Hogan, A. Amato, S. R. Giblin, Clarina de la Cruz, A. Daoud-Aladine, Stephen D. Wilson, and M. J. Graf	
Superfluidity and superconductivity	
Three-component electronic structure of the cuprates derived from spectroscopic-imaging scanning tunneling microscopy (13 pages)	174501
J. W. Alldredge, K. Fujita, H. Eisaki, S. Uchida, and Kyle McElroy	
Mismatch of conductivity anisotropy in the mixed and normal states of type-II superconductors (10 pages)	174502
A. A. Beshpalov and A. S. Mel'nikov	
Field-tuned superconductor-insulator transition in $\text{BaPb}_{1-x}\text{Bi}_x\text{O}_3$ (7 pages)	174503
P. Giraldo-Gallo, Hanoh Lee, Y. Zhang, M. J. Kramer, M. R. Beasley, T. H. Geballe, and I. R. Fisher	
High-temperature change of the creep rate in $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ films with different pinning landscapes (7 pages)	174504
N. Haberkorn, M. Miura, J. Baca, B. Maiorov, I. Usov, P. Dowden, S. R. Foltyn, T. G. Holesinger, J. O. Willis, K. R. Marken, T. Izumi, Y. Shiohara, and L. Civale	
Superconductivity in the Heusler family of intermetallics (8 pages)	174505
T. Klimczuk, C. H. Wang, K. Gofryk, F. Ronning, J. Winterlik, G. H. Fecher, J.-C. Griveau, E. Colineau, C. Felser, J. D. Thompson, D. J. Safarik, and R. J. Cava	
Negative thermal expansion and antiferromagnetism in the actinide oxypnictide NpFeAsO (10 pages)	174506
T. Klimczuk, H. C. Walker, R. Springell, A. B. Shick, A. H. Hill, P. Gaczyński, K. Gofryk, S. A. J. Kimber, C. Ritter, E. Colineau, J.-C. Griveau, D. Bouëxière, R. Eloirdi, R. J. Cava, and R. Caciuffo	
Saddle point states in two-dimensional superconducting films biased near the depairing current (5 pages)	174507
D. Y. Vodolazov	
Magnetic field dependence of spin-lattice relaxation in the $s_{\pm}$ state of $\text{Ba}_{0.67}\text{K}_{0.33}\text{Fe}_2\text{As}_2$ (5 pages)	174508
Sangwon Oh, A. M. Mounce, W. P. Halperin, C. L. Zhang, Pengcheng Dai, A. P. Reyes, and P. L. Kuhns	
Experimental and theoretical electronic structure of EuRh_2As_2 (5 pages)	174509
A. D. Palczewski, R. S. Dhaka, Y. Lee, Yogesh Singh, D. C. Johnston, B. N. Harmon, and Adam Kaminski	
Influence of Andreev reflection on current-voltage characteristics of superconductor/ferromagnet/superconductor metallic weak links (10 pages)	174510
Z. Popović, L. Dobrosavljević-Grujić, and R. Zikic	
Nonthermal response of $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ thin films to picosecond THz pulses (8 pages)	174511
P. Probst, A. Semenov, M. Ries, A. Hoehl, P. Rieger, A. Scheuring, V. Judin, S. Wunsch, K. Il'in, N. Smale, Y.-L. Mathis, R. Müller, G. Ulm, G. Wüstefeld, H.-W. Hübers, J. Hänisch, B. Holzapfel, M. Siegel, and A.-S. Müller	

(Continued)

CONTENTS - *Continued*

PHYSICAL REVIEW B

THIRD SERIES, VOLUME 85, NUMBER 17

MAY 2012-1(I)

Electronic structure and magnetic properties of NaOsO ₃ (5 pages)	174424
Yongping Du, Xiangang Wan, Li Sheng, Jinming Dong, and Sergey Y. Savrasov	
Phase relationship between the long-time beats of free induction decays and spin echoes in solids (8 pages)	174425
E. G. Sorte, B.V. Fine, and B. Saam	
¹ H-NMR study of the spin dynamics of fine superparamagnetic nanoparticles (7 pages)	174426
L. Bordonali, Y. Furukawa, M. Kraken, F. J. Litterst, C. Sangregorio, M. F. Casula, and A. Lascialfari	
Power and linewidth of propagating and localized modes in nanocontact spin-torque oscillators (8 pages)	174427
Stefano Bonetti, Vito Puliafito, Giancarlo Consolo, Vasyl S. Tiberkevich, Andrei N. Slavin, and Johan Åkerman	
Interaction between propagating spin waves and domain walls on a ferromagnetic nanowire (6 pages)	174428
J.-S. Kim, M. Stärk, M. Kläui, J. Yoon, C.-Y. You, L. Lopez-Diaz, and E. Martinez	
Magnetic vortices on closely packed spherically curved surfaces (4 pages)	174429
Robert Streubel, Denys Makarov, Florian Kronast, Volodymyr Kravchuk, Manfred Albrecht, and Oliver G. Schmidt	
Magnetism of Co-doped ZnO epitaxially grown on a ZnO substrate (8 pages)	174430
Li Li, Y. Guo, X. Y. Cui, Rongkun Zheng, K. Ohtani, C. Kong, A. V. Ceguerra, M. P. Moody, J. D. Ye, H. H. Tan, C. Jagadish, Hui Liu, C. Stampfl, H. Ohno, S. P. Ringer, and F. Matsukura	
Landau-Heisenberg Hamiltonian model for FeRh (15 pages)	174431
P. M. Derlet	
Detecting nonmagnetic excitations in quantum magnets (7 pages)	174432
Zhihao Hao	
Effect of correlations on electronic structure and transport across (001) Fe/MgO/Fe junctions (4 pages)	174433
Sergey V. Faleev, Oleg N. Mryasov, and Mark van Schilfgaarde	
Layered antiferromagnetic spin structures of expanded face-centered-tetragonal Mn(001) as an origin of exchange bias coupling to the magnetic Co layer (5 pages)	174434
Pin-Jui Hsu, Chun-I Lu, Yu-Hsun Chu, Bo-Yao Wang, Chii-Bin Wu, Lun-Jia Chen, Sheng-Syun Wong, and Minn-Tsong Lin	
Magnetic-field-induced instability of the cooperative paramagnetic state in Zn _x Co _{4-x} (OD) ₆ Cl ₂ (6 pages)	174435
S. E. Dissanayake, C. Chan, S. Ji, J. Lee, Y. Qiu, K. C. Rule, B. Lake, M. Green, M. Hagihala, X. G. Zheng, T. K. Ng, and S.-H. Lee	
Vortex dynamics in nonparabolic potentials (7 pages)	174436
Hauke H. Langner, Thomas Kamionka, Michael Martens, Markus Weigand, Christian F. Adolff, Ulrich Merkt, and Guido Meier	
Intrinsic magnetic relaxation in goethite (11 pages)	174437
Quentin A. Pankhurst, Luis Fernández Barquín, James S. Lord, Alex Amato, and Ulrich Zimmermann	
Paramagnetic ground state with field-induced partial order in Nd ₃ Ga ₅ SiO ₁₄ probed by low-temperature heat transport (6 pages)	174438
Q. J. Li, Z. Y. Zhao, H. D. Zhou, W. P. Ke, X. M. Wang, C. Fan, X. G. Liu, L. M. Chen, X. Zhao, and X. F. Sun	

(Continued)

CONTENTS - Continued

PHYSICAL REVIEW B

THIRD SERIES, VOLUME 85, NUMBER 17

MAY 2012-1(I)

Spin-wave method for the total energy of paramagnetic state (10 pages)	174407
A. V. Ruban and V. I. Razumovskiy	
Landau theory for the phase diagram of multiferroic $\text{Mn}_{1-x}(\text{Fe,Zn,Mg})_x\text{WO}_4$ (13 pages)	174408
Shlomi Matityahu, Amnon Aharony, and Ora Entin-Wohlman	
Magnetization and magnetization reversal in epitaxial Fe/Cr/Co asymmetric spin-valve systems (12 pages)	174409
F. Brüssing, B. Toperverg, K. Zhernenkov, A. Devishvili, H. Zabel, M. Wolff, K. Theis-Bröhl, C. Wiemann, A. Kaiser, and C. M. Schneider	
Atomic-scale magnetic dissipation from spin-dependent adhesion hysteresis (6 pages)	174410
E. Y. Vedmedenko, Q. Zhu, U. Kaiser, A. Schwarz, and R. Wiesendanger	
Impact of excess iron on the calculated electronic and magnetic properties of gallium ferrite (9 pages)	174411
F. Ibrahim and M. Alouani	
Tuning in magnetic modes in $\text{Tb}(\text{Co}_x\text{Ni}_{1-x})_2\text{B}_2\text{C}$: From longitudinal spin-density waves to simple ferromagnetism (5 pages)	174412
M. ElMassalami, H. Takeya, B. Ouladdiaf, R. Maia Filho, A. M. Gomes, T. Paiva, and R. R. dos Santos	
Magnetic-field-induced color change in $\alpha\text{-Fe}_2\text{O}_3$ single crystals (5 pages)	174413
P. Chen, N. Lee, S. McGill, S.-W. Cheong, and J. L. Musfeldt	
Lattice distortion accompanied by magnetization reversal in A-type antiferromagnetic manganites (5 pages)	174414
Jong-Suck Jung, Ayato Iyama, Hiroyuki Nakamura, Yusuke Wakabayashi, and Tsuyoshi Kimura	
Growth process and magnetic properties of iron nanoparticles deposited on $\text{Si}_3\text{N}_4/\text{Si}(111)\text{-(}8 \times 8\text{)}$ (8 pages)	174415
Keitaro Eguchi, Yasumasa Takagi, Takeshi Nakagawa, and Toshihiko Yokoyama	
Skyrmion generation by current (8 pages)	174416
Youngbin Tchoe and Jung Hoon Han	
Antiferroquadrupole order and magnetic field induced octupole in CeB_6 (10 pages)	174417
Takeshi Matsumura, Takumi Yonemura, Keisuke Kunimori, Masafumi Sera, Fumitoshi Iga, Tatsuya Nagao, and Jun-ichi Igarashi	
Complex state found in the colossal magnetoresistance regime of models for manganites (8 pages)	174418
Cengiz Şen, Shuhua Liang, and Elbio Dagotto	
Bloch-Redfield theory of high-temperature magnetic fluctuations in interacting spin systems (9 pages)	174419
Andrew G. Sykes, Dmitry Solenov, and Dmitry Mozysky	
Degeneracy and ordering of the noncoplanar phase of the classical bilinear-biquadratic Heisenberg model on the triangular lattice (9 pages)	174420
S. E. Korshunov, F. Mila, and K. Penc	
Thermodynamic Casimir effect: Universality and corrections to scaling (19 pages)	174421
Martin Hasenbusch	
Observation of persistent centrosymmetry in the hexagonal manganite family (7 pages)	174422
Yu Kumagai, Alexei A. Belik, Martin Lilienblum, Naëmi Leo, Manfred Fiebig, and Nicola A. Spaldin	
Combined analytical and numerical approach to magnetization plateaux in one-dimensional spin tube antiferromagnets (16 pages)	174423
X. Plat, S. Capponi, and P. Pujol	

(Continued)

Inhomogeneous, disordered, and partially ordered systems

- Structural and dynamic origin of the boson peak in a Cu-Zr metallic glass (6 pages) 174201
N. Jakse, A. Nassour, and A. Pasturel

-  Quantum Griffiths singularities in ferromagnetic metals (7 pages) 174202
David Nozadze and Thomas Vojta

Dynamics, dynamical systems, lattice effects:

- Engineering surface waves in flat phononic plates (5 pages) 174301
Héctor Estrada, Pilar Candelas, Francisco Belmar, Antonio Uris, F. Javier García de Abajo, and Francisco Meseguer

- Optical decoherence studies of yttrium oxyorthosilicate Y_2SiO_5 codoped with Er^{3+} and Eu^{3+} for optical signal processing and quantum information applications at 1.5 microns (15 pages) 174302
C. W. Thiel, W. R. Babbitt, and R. L. Cone

- Jahn-Teller effect in the phonon properties of defective SrTiO_3 from first principles (5 pages) 174303
Robert Evarestov, Evgeny Blokhin, Denis Gryaznov, Eugene A. Kotomin, Rotraut Merkle, and Joachim Maier

- Entanglement dynamics in a non-Markovian environment: An exactly solvable model (10 pages) 174304
Justin H. Wilson, Benjamin M. Fregoso, and Victor M. Galitski

- Transverse dynamics of water across the melting point: A parallel neutron and x-ray inelastic scattering study (12 pages) 174305
A. Cunsolo, C. N. Kodituwakku, F. Bencivenga, M. Frontzek, B. M. Leu, and A. H. Said

Magnetism

- Direct observation of twin domains of $\text{NiO}(100)$ by x-ray linear dichroism at the O K edge using photoemission electron microscopy (6 pages) 174401
Kuniaki Arai, Taichi Okuda, Arata Tanaka, Masato Kotsugi, Keiki Fukumoto, Takuo Ohkochi, Fangzhun Guo, Tetsuya Nakamura, Tomohiro Matsushita, Takayuki Muro, Masaki Oura, Yasunori Senba, Haruhiko Ohashi, Akito Kakizaki, and Toyohiko Kinoshita

- Thermodynamic studies on single-crystalline $\text{Gd}_2\text{BaNiO}_5$ (7 pages) 174402
E. A. Popova, R. Klingeler, N. Tristan, B. Büchner, and A. N. Vasiliev

- Dissipation effects in random transverse-field Ising chains (16 pages) 174403
José A. Hoyos and Thomas Vojta

- Chiral spin liquid in two-dimensional XY helimagnets (10 pages) 174404
A. O. Sorokin and A. V. Syromyatnikov

- Magnetic ordering in Ni-rich NiMn alloys around the multicritical point: Experiment and theory (12 pages) 174405
Pampa Pal, Rudra Banerjee, Radheshyam Banerjee, Abhijit Mookerjee, Gopi Chandra Kaphle, Biplab Sanyal, J. Hellsvik, Olle Eriksson, P. Mitra, A. K. Majumdar, and A. K. Nigam

- Mixed valence of iron inside tetrahedral and pseudopyramids in $\text{BiFe}_2\text{O}_{5-\delta}$ (8 pages) 174406
M. Retuerto, M. J. Martínez-Lope, K. Krezhov, T. Ruskov, I. Spirov, P. Krystev, F. Jiménez-Villacorta, M. T. Fernández-Díaz, and J. A. Alonso

(Continued)

ARTICLES

Structure, structural phase transitions, mechanical properties, defects

- Ab initio* description of monovacancies in paramagnetic austenitic Fe-Cr-Ni alloys (7 pages) 174101
L. Delczeg, B. Johansson, and L. Vitos
- First-principles study of point defects under varied chemical potentials in $\text{Li}_4\text{BN}_3\text{H}_{10}$ (10 pages) 174102
David E. Farrell and C. Wolverton
- Neural network interatomic potential for the phase change material GeTe (13 pages) 174103
Gabriele C. Sosso, Giacomo Miceli, Sebastiano Caravati, Jörg Behler, and Marco Bernasconi
- High-pressure melting curve of platinum from *ab initio* Z method (7 pages) 174104
A. B. Belonoshko and A. Rosengren
- Harmonic Debye-Waller analysis of anharmonic vibrations (9 pages) 174105
D. J. Safarik, A. Llobet, and J. C. Lashley
- Comprehensive study of the ferroelectricity induced by the spin-dependent *d-p* hybridization mechanism in $\text{Ba}_2\text{XGe}_2\text{O}_7$ ($\text{X} = \text{Mn}, \text{Co}, \text{and Cu}$) (10 pages) 174106
H. Murakawa, Y. Onose, S. Miyahara, N. Furukawa, and Y. Tokura
- Landau theory of tilting of oxygen octahedra in perovskites (22 pages) 174107
A. B. Harris
- Structural and vibrational study of cubic Sb_2O_3 under high pressure (11 pages) 174108
A. L. J. Pereira, L. Gracia, D. Santamaría-Pérez, R. Vilaplana, F. J. Manjón, D. Errandonea, M. Nalin, and A. Beltrán
- Behavior of oxygen vacancies in single-crystal SrTiO_3 : Equilibrium distribution and diffusion kinetics (11 pages) 174109
Roger A. De Souza, Veronika Metlenko, Daesung Park, and Thomas E. Weirich
- Crystal structures, strain analysis, and physical properties of $\text{Sr}_{0.7}\text{Ce}_{0.3}\text{MnO}_3$ (10 pages) 174110
Zhaoming Zhang, Brendan J. Kennedy, Christopher J. Howard, Michael A. Carpenter, Wojciech Miiller, Kevin S. Knight, Motohide Matsuda, and Michihiro Miyake
- Defect and solute properties in dilute Fe-Cr-Ni austenitic alloys from first principles (23 pages) 174111
T. P. C. Klaver, D. J. Hepburn, and G. J. Ackland

