

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 1N01
2 Huntington Quadrangle
Melville, NY 11747-4502

THIRD SERIES, VOLUME 77, NUMBER 10

CONTENTS

MARCH 2008-1(II)

RAPID COMMUNICATIONS

Structure, structural phase transitions, mechanical properties, defects

- Effect of normal stress on the ideal shear strength in covalent crystals (*4 pages*) 100101(R)
Yoshitaka Umeno and Miroslav Černý

Inhomogeneous, disordered, and partially ordered systems

- Hypersound damping in vitreous silica measured by picosecond acoustics (*4 pages*) 100201(R)
A. Devos, M. Foret, S. Ayrihac, P. Emery, and B. Rufflé

Magnetism

- Triplet spin resonance of the Haldane magnet $\text{PbNi}_2\text{V}_2\text{O}_8$ with interchain coupling (*4 pages*) 100401(R)
A. I. Smirnov, V. N. Glazkov, T. Kashiwagi, S. Kimura, M. Hagiwara, K. Kindo, A. Ya. Shapiro, and
L. N. Demianets
- Devitrification and recrystallization of magnetic glass $\text{La}_{0.5}\text{Ca}_{0.5}\text{MnO}_3$ (*4 pages*) 100402(R)
P. Chaddah, Kranti Kumar, and A. Banerjee
- Universal scaling of the anomalous Hall effect in Fe_3O_4 epitaxial thin films (*4 pages*) 100403(R)
A. Fernández-Pacheco, J. M. De Teresa, J. Orna, L. Morellon, P. A. Algarabel, J. A. Pardo, and
M. R. Ibarra
- Current driven spin-wave instability triggered by the anomalous Hall effect (*4 pages*) 100404(R)
I. Ya. Korenblit
- Low-temperature phase boundary of dilute-lattice spin glasses (*4 pages*) 100405(R)
Stefan Boettcher and Emiliano Marchetti
- Unusual temperature dependence of the oxygen-isotope effect on the exchange-energy of $\text{La}_{1-x}\text{Ca}_x\text{MnO}_3$ at
high temperatures (*4 pages*) 100406(R)
Guo-meng Zhao and John Mann

Superfluidity and superconductivity

- Quantitative study of quasiparticle traps using the single-Cooper-pair transistor (*4 pages*) 100501(R)
N. A. Court, A. J. Ferguson, Roman Lutchyn, and R. G. Clark
- Mesoscopic gap fluctuations in an unconventional superconductor (*4 pages*) 100502(R)
Victor Galitski



Copyright 2008 by The American Physical Society

(Continued)



1098-0121(20080301)77:10;1-T

Coexistence of ferromagnetism and superconductivity in ErRh_4B_4 single crystals probed by dynamic magnetic susceptibility (4 pages)	100503(R)
R. Prozorov, M. D. Vannette, S. A. Law, S. L. Bud'ko, and P. C. Canfield	
Electron-phonon interaction in the lamellar cobaltate Na_xCoO_2 (4 pages)	100504(R)
A. Donkov, M. M. Korshunov, I. Eremin, P. Lemmens, V. Gnezdilov, F. C. Chou, and C. T. Lin	
Ambient-pressure bulk superconductivity deep in the magnetic state of CeRhIn_5 (4 pages)	100505(R)
Johnpierre Paglione, P.-C. Ho, M. B. Maple, M. A. Tanatar, Louis Taillefer, Y. Lee, and C. Petrovic	
Doping dependence of the vortex-core energy in bilayer films of cuprates (4 pages)	100506(R)
L. Benfatto, C. Castellani, and T. Giamarchi	
Two-band parallel conductivity at terahertz frequencies in the superconducting state of MgB_2 (4 pages)	100507(R)
M. Ortolani, P. Dore, D. Di Castro, A. Perucchi, S. Lupi, V. Ferrando, M. Putti, I. Pallecchi, C. Ferdeghini, and X. X. Xi	
Macroscopic Greenberger-Horne-Zeilinger and W states in flux qubits (4 pages)	100508(R)
Mun Dae Kim and Sam Young Cho	

ARTICLES

Structure, structural phase transitions, mechanical properties, defects

Electronic and elastic properties of non-oxide anti-perovskites from first principles: Superconducting CdCNi_3 in comparison with magnetic InCNi_3 (8 pages)	104101
I. R. Shein and A. L. Ivanovskii	
Mean free path of inelastic electron scattering in elemental solids and oxides using transmission electron microscopy: Atomic number dependent oscillatory behavior (7 pages)	104102
Konstantin Iakoubovskii, Kazutaka Mitsuishi, Yoshiko Nakayama, and Kazuo Furuya	
Structural properties and enthalpy of formation of magnesium hydride from quantum Monte Carlo calculations (8 pages)	104103
M. Pozzo and D. Alfè	
Thermodynamics of oxygen defective Magnéli phases in rutile: A first-principles study (10 pages)	104104
Leandro Liborio and Nicholas Harrison	
First-principles determination of static potential energy surfaces for atomic friction in MoS_2 and MoO_3 (6 pages)	104105
Tao Liang, W. Gregory Sawyer, Scott S. Perry, Susan B. Sinnott, and Simon R. Phillpot	
Theoretical investigation of the defect formation mechanism relevant to nonstoichiometry in hydroxyapatite (14 pages)	104106
Katsuyuki Matsunaga	
Nanodispersed DO_3 -phase nanostructures observed in magnetostrictive Fe-19% Ga Galfenol alloys (6 pages)	104107
Somnath Bhattacharyya, J. R. Jinschek, A. Khachatryan, H. Cao, J. F. Li, and D. Viehland	
Nitrogen-induced interface defects in Si oxynitride (4 pages)	104108
Eun-Cheol Lee	
Magneto-elastic effects in compressed cobalt from first-principles (7 pages)	104109
Gerd Steinle-Neumann	

Central peaks, acoustic modes, and the dynamics of polar nanoregions in $\text{Pb}[(\text{Zn}_{1/3}\text{Nb}_{2/3})_x\text{Ti}_{1-x}]\text{O}_3$ single crystals studied by Brillouin spectroscopy (10 pages)	104110
Jae-Hyeon Ko, Do Han Kim, and Seiji Kojima	
Infrared and magnetic characterization of multiferroic $\text{Bi}_2\text{FeCrO}_6$ thin films over a broad temperature range (7 pages)	104111
S. Kamba, D. Nuzhnyy, R. Nechache, K. Závěta, D. Nižňanský, E. Šantavá, C. Harnagea, and A. Pignolet	
Fresnel diffractive imaging: Experimental study of coherence and curvature (6 pages)	104112
L. W. Whitehead, G. J. Williams, H. M. Quiney, K. A. Nugent, A. G. Peele, D. Paterson, M. D. de Jonge, and I. McNulty	
First-principles investigations of elastic properties and energetics of antiferroelectric and ferroelectric phases of PbZrO_3 (6 pages)	104113
R. Kagimura and D. J. Singh	
Experimental and computational studies on solvent-free rare-earth metal borohydrides $R(\text{BH}_4)_3$ ($R=\text{Y}$, Dy, and Gd) (8 pages)	104114
Toyoto Sato, Kazutoshi Miwa, Yuko Nakamori, Kenji Ohoyama, Hai-Wen Li, Tatsuo Noritake, Masakazu Aoki, Shin-ichi Towata, and Shin-ichi Orimo	
Prototype electrostatic ground state approach to predicting crystal structures of ionic compounds: Application to hydrogen storage materials (13 pages)	104115
E. H. Majzoub and V. Ozoliņš	
High-resolution temperature-dependent Brillouin scattering studies of ferroelectric $\text{K}_3\text{Nb}_3\text{O}_6(\text{BO}_3)_2$ (9 pages)	104116
M. Mączka, J. Hanuza, and S. Kojima	
Theoretical elastic stiffness of quaternary crystal $\text{Y}_3\text{Si}_5\text{N}_9\text{O}$ by first-principles investigation (5 pages)	104117
Jingyang Wang, Yanchun Zhou, Zhijun Lin, and Takahisa Ohno	
<i>Ab initio</i> calculations of the second-order elastic constants of crystals under arbitrary isotropic pressure (9 pages)	104118
G. V. Sin'ko	
Xe and Ar nanobubbles in Al studied by photoemission spectroscopy (12 pages)	104119
R. S. Dhaka, C. Biswas, A. K. Shukla, S. R. Barman, and Aparna Chakrabarti	
Point defects and clustering in uranium dioxide by LSDA+U calculations (16 pages)	104120
Hua Y. Geng, Ying Chen, Yasunori Kaneta, Misako Iwasawa, Toshiharu Ohnuma, and Motoyasu Kinoshita	
Coherence approach to neutron polarization propagation in instruments (18 pages)	104121
Victor O. de Haan, Ad A. van Well, and Jeroen Plomp	
Anomalous dispersion of the elastic constants at the phase transformation of the $\text{PbMg}_{1/3}\text{Nb}_{2/3}\text{O}_3$ relaxor ferroelectric (5 pages)	104122
S. G. Lushnikov, A. I. Fedoseev, S. N. Gvasaliya, and Seiji Kojima	
First-principles study of cubic Bi pyrochlores (14 pages)	104123
Beverly Brooks Hinojosa, Juan C. Nino, and Aravind Asthagiri	
Inhomogeneous, disordered, and partially ordered systems	
Computation and visualization of photonic quasicrystal spectra via Bloch's theorem (10 pages)	104201
Alejandro W. Rodriguez, Alexander P. McCauley, Yehuda Avniel, and Steven G. Johnson	

Exact Lyapunov exponent of the harmonic magnon modes of one-dimensional Heisenberg-Mattis spin glasses (6 pages)	104202
Reza Sepehrinia, M. D. Niry, B. Bozorg, M. Reza Rahimi Tabar, and Muhammad Sahimi	
Second-nearest-neighbor modified embedded-atom potential for binary Ta-W alloys based on first-principles calculations (8 pages)	104203
C. Bercegeay, G. Jomard, and S. Bernard	
Dielectric responses of anisotropic graded granular composites having arbitrary inclusion shapes (6 pages)	104204
En-Bo Wei, G. Q. Gu, and Y. M. Poon	
Flipping the sign of refractive index changes in ultrafast and temporally shaped laser-irradiated borosilicate crown optical glass at high repetition rates (8 pages)	104205
A. Mermillod-Blondin, I. M. Burakov, Yu. P. Meshcheryakov, N. M. Bulgakova, E. Audouard, A. Rosenfeld, A. Husakou, I. V. Hertel, and R. Stoian	
Dynamics, dynamical systems, lattice effects, quantum solids	
^6Li and ^7Li NMR line-shape and stimulated-echo studies of lithium ionic hopping in LiPO_3 glass (10 pages)	104301
Sandra Faske, Hellmut Eckert, and Michael Vogel	
O-H wag vibrations in hydrated $\text{BaIn}_x\text{Zr}_{1-x}\text{O}_{3-x/2}$ investigated with inelastic neutron scattering (6 pages)	104302
Maths Karlsson, Aleksandar Matic, Stewart F. Parker, Istaq Ahmed, Lars Börjesson, and Sten Eriksson	
Transport in open spin chains: A Monte Carlo wave-function approach (10 pages)	104303
Mathias Michel, Ortwin Hess, Hannu Wichterich, and Jochen Gemmer	
Sonic band gaps in one-dimensional phononic crystals with a symmetric stub (7 pages)	104304
Anne-Christine Hladky-Hennion, Jérôme Vasseur, Bahram Djafari-Rouhani, and Michel de Billy	
Line shapes of narrow optical bands: Infrared absorption by U centers and heavier impurities in alkali halides (10 pages)	104305
Miguel Lagos, Felipe Asenjo, Roberto Hauyón, Denisse Pastén, Hernán González, Ricardo Henríquez, and Roberto Troncoso	
Vibrational dynamics and phonon dispersion of polycrystalline ice XII and of high-density amorphous ice (9 pages)	104306
M. M. Koza, H. Schober, S. F. Parker, and J. Peters	
Magnetism	
Quantitative calculation of the spatial extension of the Kondo cloud (12 pages)	104401
Gerd Bergmann	
Experimental determination of thermal entanglement in spin clusters using magnetic susceptibility measurements (6 pages)	104402
A. M. Souza, M. S. Reis, D. O. Soares-Pinto, I. S. Oliveira, and R. S. Sarthour	
Spin waves modulated in a ferromagnetic bilayer system calculated using the interface rescaling approach (6 pages)	104403
Wen Ping Zhou, Guo Hong Yun, and Xi Xia Liang	
Simplex solid states of $\text{SU}(N)$ quantum antiferromagnets (14 pages)	104404
Daniel P. Arovas	

Quantum-classical crossover of the escape rate in nanomagnets with truly axial symmetry (7 pages)	104405
Gwang-Hee Kim	
Suppression and recovery of the ferroelectric phase in multiferroic MnWO_4 (6 pages)	104406
R. P. Chaudhury, B. Lorenz, Y. Q. Wang, Y. Y. Sun, and C. W. Chu	
Determination of the magnetic structures of the field-induced phases of HoMnO_3 (8 pages)	104407
P. J. Brown and T. Chatterji	
Variation of the magnetic ordering in $\text{GdT}_2\text{Zn}_{20}$ ($T=\text{Fe, Ru, Os, Co, Rh}$ and Ir) and its correlation with the electronic structure of isostructural $\text{YT}_2\text{Zn}_{20}$ (14 pages)	104408
Shuang Jia (贾爽), Ni Ni (倪霓), G. D. Samolyuk, A. Safa-Sefat, K. Dennis, Hyunjin Ko, G. J. Miller, S. L. Bud'ko, and P. C. Canfield	
Theoretical study of the conductance of ferromagnetic atomic-sized contacts (9 pages)	104409
M. Häfner, J. K. Viljas, D. Frustaglia, F. Pauly, M. Dreher, P. Nielaba, and J. C. Cuevas	
Pressure effects on magnetic and structural properties of pure and substituted SrRuO_3 (6 pages)	104410
J. Pietosa, B. Dabrowski, A. Wisniewski, R. Puzniak, R. Kiyonagi, T. Maxwell, and J. D. Jorgensen	
Fully relaxed magnetic structure of transition metal nanowires: First-principles calculations (5 pages)	104411
Michael Czerner, Bogdan Yu. Yavorsky, and Ingrid Mertig	
Energy scales of $\text{Lu}_{1-x}\text{Yb}_x\text{Rh}_2\text{Si}_2$ by means of thermopower investigations (6 pages)	104412
U. Köhler, N. Oeschler, F. Steglich, S. Maquilon, and Z. Fisk	
Quantum spin liquid in the spin-1/2 triangular antiferromagnet $\text{EtMe}_3\text{Sb}[\text{Pd}(\text{dmit})_2]_2$ (5 pages)	104413
T. Itou, A. Oyamada, S. Maegawa, M. Tamura, and R. Kato	
Electronic transport in magnetically ordered $\text{Mn}_5\text{Si}_3\text{C}_x$ films (10 pages)	104414
B. Gopalakrishnan, C. Sürgers, R. Montbrun, A. Singh, M. Uhlarz, and H. v. Löhneysen	
X-ray resonant diffraction study of multiferroic DyMn_2O_5 (7 pages)	104415
R. A. Ewings, A. T. Boothroyd, D. F. McMorro, D. Mannix, H. C. Walker, and B. M. R. Wanklyn	
High temperature ferromagnetism in single crystalline dilute Fe-doped BaTiO_3 (6 pages)	104416
Sugata Ray, Priya Mahadevan, Suman Mandal, S. R. Krishnakumar, Carlos Seiti Kuroda, T. Sasaki, Tomoyasu Taniyama, and Mitsuru Itoh	
Free-energy functional for the Sherrington-Kirkpatrick model: The Parisi formula completed (5 pages)	104417
V. Janiš	
Phase-space equilibrium distributions and their applications to spin systems with nonaxially symmetric Hamiltonians (13 pages)	104418
Yuri P. Kalmykov, William T. Coffey, and Serguey V. Titov	
Magnetic properties of interacting nanoparticles in a triangular lattice: Monte Carlo simulations (9 pages)	104419
W. Figueiredo and W. Schwarzacher	
Transition rates for a $S \geq 1$ spin model coupled to a d -dimensional phonon bath (7 pages)	104420
Kyungwha Park	
Absorption suppression in photonic crystals (8 pages)	104421
A. Figotin and I. Vitebskiy	
Magnetic properties, phase stability, electronic structure, and half-metallicity of $L2_1$ -type $\text{Co}_2(\text{V}_{1-x}\text{Mn}_x)\text{Ga}$ Heusler alloys (8 pages)	104422
R. Y. Umetsu, K. Kobayashi, A. Fujita, R. Kainuma, K. Ishida, K. Fukamichi, and A. Sakuma	

Magnetic freezing and spin frustration in the triangular lattice magnets GdI_2H_x ($0 \leq x < 1$) (5 pages)	104423
Mikhail Ryazanov, Arndt Simon, and Reinhard K. Kremer	
Spin dynamics of the pyrochlore magnets $\text{Gd}_2\text{Ti}_2\text{O}_7$ and $\text{Gd}_2\text{Sn}_2\text{O}_7$ in the paramagnetic state (8 pages)	104424
S. S. Sosin, L. A. Prozorova, A. I. Smirnov, P. Bonville, G. Jasmin-Le Bras, and O. A. Petrenko	
Experimental investigation of the spin reorientation of Co/Au based magnetic nanodot arrays (9 pages)	104425
L. Gridneva, A. Persson, M. Á. Niño, J. Camarero, J. J. de Miguel, R. Miranda, C. Hofer, C. Teichert, T. Bobek, A. Locatelli, S. Heun, S. Carlsson, and D. Arvanitis	
Paramagnetic properties of XY-ordered Jahn-Teller crystals (4 pages)	104426
Michael D. Kaplan and George O. Zimmerman	
Spin waves and local magnetizations on the Penrose tiling (13 pages)	104427
Attila Szallas and Anuradha Jagannathan	
Spin-glass behavior in an interacting $\gamma\text{-Fe}_2\text{O}_3$ nanoparticle system (9 pages)	104428
D. Parker, V. Dupuis, F. Ladieu, J.-P. Bouchaud, E. Dubois, R. Perzynski, and E. Vincent	
Stepwise responses in mesoscopic glassy systems: A mean-field approach (37 pages)	104429
Hajime Yoshino and Tommaso Rizzo	
Spin and orbital magnetism in ordered $\text{Fe}_{3\pm\delta}\text{Si}_{1\mp\delta}$ binary Heusler structures: Theory versus experiment (5 pages)	104430
Khalil Zakeri, S. Javad Hashemifar, Jürgen Lindner, Igor Barsukov, Ralf Meckenstock, Peter Kratzer, Zdeněk Fraňt, and Michael Farle	
Ferromagnetic nanoparticles with strong surface anisotropy: Spin structures and magnetization processes (10 pages)	104431
L. Berger, Y. Labaye, M. Tamine, and J. M. D. Coey	
Critical properties of the four-state commutative random permutation glassy Potts model in three and four dimensions (9 pages)	104432
L. A. Fernández, A. Maiorano, E. Marinari, V. Martin-Mayor, D. Navarro, D. Sciretti, A. Tarancón, and J. L. Velasco	
Origin of the magnetic-field dependence of the nuclear spin-lattice relaxation in iron (20 pages)	104433
G. Seewald, E. Zech, H.-J. Körner, D. Borgmann, M. Dietrich, and ISOLDE Collaboration	
Tailoring of magnetocaloric response in nanostructured materials: Role of anisotropy (7 pages)	104434
Victorino Franco, Kleber R. Pirota, Victor M. Prida, Antonio Maia J. C. Neto, Alejandro Conde, Marcelo Knobel, Blanca Hernando, and Manuel Vazquez	
Depth-resolved investigation of the lateral magnetic correlations in a gradient nanocrystalline multilayer (19 pages)	104435
Emmanuel Kentzinger, Ulrich Rücker, Boris Toperverg, Frédéric Ott, and Thomas Brückel	
Magnetic properties of $\text{Ag}_2\text{VOP}_2\text{O}_7$: An unexpected spin dimer system (7 pages)	104436
Alexander A. Tsirlin, Ramesh Nath, Christoph Geibel, and Helge Rosner	
Zero-temperature phase of the XY spin glass in two dimensions: Genetic embedded matching heuristic (17 pages)	104437
Martin Weigel and Michel J. P. Gingras	
Crystal and magnetic structures of $(\text{La}_{0.70}\text{Ca}_{0.30})(\text{Cr}_y\text{Mn}_{1-y})\text{O}_3$: A neutron powder diffraction study (6 pages)	104438
L. Capogna, A. Martinelli, M. G. Francesconi, P. G. Radaelli, J. Rodriguez Carvajal, O. Cabeza, M. Ferretti, C. Castellano, T. Corridoni, and N. Pompeo	

Influence of the strong magnetocrystalline anisotropy on the magnetocaloric properties of MnP single crystal (8 pages)	104439
M. S. Reis, R. M. Rubinger, N. A. Sobolev, M. A. Valente, K. Yamada, K. Sato, Y. Todate, A. Bouravleuv, P. J. von Ranke, and S. Gama	
Generalization of Snoek's law to ferromagnetic films and composites (11 pages)	104440
O. Acher and S. Dubourg	
Quantum effects in magnetization of J_1 - J_2 square lattice antiferromagnet (11 pages)	104441
P. Thalmeier, M. E. Zhitomirsky, B. Schmidt, and N. Shannon	
Valence states and metamagnetic phase transition in partially B-site-disordered perovskite $\text{EuMn}_{0.5}\text{Co}_{0.5}\text{O}_3$ (5 pages)	104442
A. N. Vasiliev, O. S. Volkova, L. S. Lobanovskii, I. O. Troyanchuk, Z. Hu, L. H. Tjeng, D. I. Khomskii, H.-J. Lin, C. T. Chen, N. Tristan, F. Kretzschmar, R. Klingeler, and B. Büchner	
Mechanism of coercivity in epitaxial SmCo_5 thin films (6 pages)	104443
A. Singh, V. Neu, S. Fähler, K. Nenkov, L. Schultz, and B. Holzapfel	
Pressure-induced suppression of Wigner-crystal antiferromagnetic state in $\text{La}_{0.33}\text{Ca}_{0.67}\text{MnO}_3$ (6 pages)	104444
D. P. Kozlenko, L. S. Dubrovinsky, B. N. Savenko, V. I. Voronin, E. A. Kiselev, and N. V. Proskurnina	
<i>In situ</i> manipulation of magnetic anisotropy in magnetite thin films (9 pages)	104445
A. Brandlmaier, S. Geprägs, M. Weiler, A. Boger, M. Opel, H. Huebl, C. Bihler, M. S. Brandt, B. Botters, D. Grundler, R. Gross, and S. T. B. Goennenwein	
Phase diagram and spin-canting effects in electron-doped LaMnO_3 (7 pages)	104446
P. Schlottmann	
Superfluidity and superconductivity	
Dynamics of vortex penetration, jumpwise instabilities, and nonlinear surface resistance of type-II superconductors in strong rf fields (21 pages)	104501
A. Gurevich and G. Ciovati	
Analysis of Bell inequality violation in superconducting phase qubits (15 pages)	104502
Abraham G. Kofman and Alexander N. Korotkov	
c-axis coupling in underdoped $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+\delta}$ with varying degrees of disorder (9 pages)	104503
Panayotis Spathis, Sylvain Colson, Feng Yang, Cornelis J. van der Beek, Piotr Gierłowski, Takasada Shibauchi, Yuji Matsuda, Marat Gaifullin, Ming Li, and Peter H. Kes	
Interplay of ferromagnetism and triplet superconductivity in a Josephson junction (19 pages)	104504
P. M. R. Brydon, Boris Kastening, Dirk K. Morr, and Dirk Manske	
Magnetic field distributions around superconducting strips on ferromagnetic substrates (8 pages)	104505
Yasunori Mawatari	
Extracting the spectral function of the cuprates by a full two-dimensional analysis: Angle-resolved photoemission spectra of $\text{Bi}_2\text{Sr}_2\text{CuO}_6$ (7 pages)	104506
W. Meevasana, F. Baumberger, K. Tanaka, F. Schmitt, W. R. Dunkel, D. H. Lu, S.-K. Mo, H. Eisaki, and Z.-X. Shen	
Doped valence-bond solid and superconductivity on the Shastry-Sutherland lattice (10 pages)	104507
Bohm-Jung Yang, Yong Baek Kim, Jaejun Yu, and Kwon Park	
Vortices in a mesoscopic superconducting circular sector (9 pages)	104508
Edson Sardella, Paulo Noronha Lisboa-Filho, and André Luiz Malvezzi	

Anomalous transport in biased ac-driven Josephson junctions: Negative conductances (8 pages)	104509
M. Kostur, L. Machura, P. Talkner, P. Hänggi, and J. Łuczka	
Temperature-dependent gap edge in strong-coupling superconductors determined using the Eliashberg-Nambu formalism (11 pages)	104510
X. H. Zheng and D. G. Walmsley	
Realizable spin models and entanglement dynamics in superconducting flux qubit systems (5 pages)	104511
Qian Qian Shi, Sam Young Cho, Bo Li, and Mun Dae Kim	
Ballistic propagation of thermal excitations near a vortex in superfluid $^3\text{He-B}$ (8 pages)	104512
C. F. Barenghi, Y. A. Sergeev, and N. Suramlishvili	
Spin dynamics near the critical doping in weakly superconducting underdoped $\text{YBa}_2\text{Cu}_3\text{O}_{6.35}$ ($T_c=18\text{ K}$) (20 pages)	104513
C. Stock, W. J. L. Buyers, Z. Yamani, Z. Tun, R. J. Birgeneau, R. Liang, D. Bonn, and W. N. Hardy	
Limits to the critical current in $\text{Bi}_2\text{Sr}_2\text{Ca}_2\text{Cu}_3\text{O}_x$ tape conductors: The parallel path model (14 pages)	104514
D. C. van der Laan, J. Schwartz, B. ten Haken, M. Dhallé, and H. J. N. van Eck	
Two-dimensional vortex behavior in highly underdoped $\text{YBa}_2\text{Cu}_3\text{O}_{6+x}$ observed by scanning Hall probe microscopy (10 pages)	104515
J. W. Guikema, Hendrik Bluhm, D. A. Bonn, Ruixing Liang, W. N. Hardy, and K. A. Moler	
Phase slips in superconducting wires with nonuniform cross section: A numerical evaluation using the string method (10 pages)	104516
Chunyin Qiu, Tiezheng Qian, and Weiqing Ren	
Influence of photon-assisted tunneling on heat flow in a normal metal–superconductor tunnel junction (9 pages)	104517
Nikolai B. Kopnin, Fabio Taddei, Jukka P. Pekola, and Francesco Giazotto	
Modulation-doped-semiconductorlike behavior manifested in magnetotransport measurements of Li_xZrNCl layered superconductors (6 pages)	104518
T. Takano, A. Kitora, Y. Taguchi, and Y. Iwasa	
Cu K -edge resonant inelastic x-ray scattering in edge-sharing cuprates (10 pages)	104519
F. Vernay, B. Moritz, I. S. Elfimov, J. Geck, D. Hawthorn, T. P. Devereaux, and G. A. Sawatzky	
Gap structure in noncentrosymmetric superconductors (9 pages)	104520
K. V. Samokhin and V. P. Mineev	
Magnetic state modification induced by superconducting response in ferromagnet/superconductor Nb/Co superlattices (5 pages)	104521
C. Monton, F. de la Cruz, and J. Guimpel	
Strongly correlated superconductivity arising in a pseudogap metal (13 pages)	104522
Marco Schiró, Massimo Capone, Michele Fabrizio, and Claudio Castellani	
Cation displacements and the structures of the superconducting pyrochlore osmates AOs_2O_6 ($A=\text{K, Rb, and Cs}$) (7 pages)	104523
Rosa Galati, Charles Simon, Paul F. Henry, and Mark T. Weller	
Hidden charge- $2e$ boson: Experimental consequences for doped Mott insulators (9 pages)	104524
Ting-Pong Choy, Robert G. Leigh, and Philip Phillips	
Superconducting nonequilibrium transport through a weakly interacting quantum dot (6 pages)	104525
L. Dell’Anna, A. Zazunov, and R. Egger	

CONTENTS - Continued

PHYSICAL REVIEW B

THIRD SERIES, VOLUME 77, NUMBER 10

MARCH 2008-1(II)

Harmonic peaks of stripe phases in cuprates (<i>9 pages</i>)	104526
B. Phillabaum and E. W. Carlson	
Frequency shift and mode coupling of the collective modes of superfluid Fermi gases in the BCS-BEC crossover (<i>10 pages</i>)	104527
Yu Zhou, Wen Wen, and Guoxiang Huang	
Resistivity of inhomogeneous superconducting wires (<i>10 pages</i>)	104528
G. Venkateswara Pai, E. Shimshoni, and N. Andrei	
Superconducting $\beta(\beta')$ -vanadium bronzes under pressure (<i>18 pages</i>)	104529
Touiru Yamauchi and Yutaka Ueda	
Universal correlations of isotope effects in $Y_{1-x}Pr_xBa_2Cu_3O_{7-\delta}$ (<i>5 pages</i>)	104530
R. Khasanov, S. Strässle, K. Conder, E. Pomjakushina, A. Bussmann-Holder, and H. Keller	
Microwave-induced phase escape in a Josephson tunnel junction (<i>5 pages</i>)	104531
Sun Guozhu, Wang Yiwen, Cao Junyu, Chen Jian, Ji Zhengming, Kang Lin, Xu Weiwei, Yu Yang, Han Siyuan, and Wu Peiheng	
Origin of strong correlations and superconductivity in Na_xCoO_2 (<i>6 pages</i>)	104532
Giniyat Khaliullin and Jiří Chaloupka	
Onset of phase correlations in $YBa_2Cu_3O_{7-x}$ as determined from reversible-magnetization measurements (<i>5 pages</i>)	104533
S. Salem-Sugui, Jr. and A. D. Alvarenga	
Nanostructural model of metal-insulator transition in layered Li_xZrNCl superconductors (<i>7 pages</i>)	104534
J. C. Phillips	

ERRATA

Erratum: Nanocrystallization kinetics and glass forming ability of the $Fe_{65}Nb_{10}B_{25}$ metallic alloy [Phys. Rev. B 76 , 214111 (2007)] (<i>1 page</i>)	109901(E)
J. Torrens-Serra, J. Rodríguez-Viejo, and M. T. Clavaguera-Mora	
Erratum: Short- and medium-range structure of amorphous zircon from molecular dynamics simulations [Phys. Rev. B 74 , 214204 (2006)] (<i>1 page</i>)	109902(E)
Jincheng Du, Ram Devanathan, L. René Corrales, William J. Weber, and Alastair N. Cormack	
Publisher's Note: Realizable spin models and entanglement dynamics in superconducting flux qubit systems [Phys. Rev. B 77 , 104511 (2008)] (<i>1 page</i>)	109903(E)
Qian Qian Shi, Sam Young Cho, Bo Li, and Mun Dae Kim	