

PHYSICAL REVIEW B

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

PERIODICALS
Postmaster send address changes to:
American Institute of Physics
Suite 1NO1
2 Huntington Quadrangle
Melville, NY 11747-4502

THIRD SERIES, VOLUME 70, NUMBER 21

CONTENTS

DECEMBER 2004-1(I)

BRIEF REPORTS

Structure, structural phase transitions, mechanical properties, defects, etc.

- High-pressure and high-temperature synthesis of the cubic TiO_2 polymorph (4 pages) 212101
M. Mattesini, J. S. de Almeida, L. Dubrovinsky, N. Dubrovinskaia, B. Johansson, and R. Ahuja
- Frequency shift of the totally symmetric ν_5 mode of naphthalene under shock compression (3 pages) 212102
Akitaka Matsuda, Ayao Akiyoshi, Ken-ichi Kondo, and Kazutaka G. Nakamura
- Mechanical properties of graphite oxides: *Ab initio* simulations and continuum theory (4 pages) 212103
Andrei Incze, Alain Pasturel, and Philippe Peyla

Inhomogeneous, disordered, and partially ordered systems

- Interdependency between localization parameter and criterion of the coherent-potential-approximation applicability (4 pages) 212201
Yuriy Skrypnik

Dynamics, dynamical systems, lattice effects, quantum solids, etc.

- Low-temperature specific heat of real crystals: Possibility of leading contribution of optical vibrations and short-wavelength acoustical vibrations (4 pages) 212301
A. Cano and A. P. Levanyuk
- Optical control of coherent lattice vibrations in tellurium (4 pages) 212302
C. A. D. Roeser, M. Kandyla, A. Mendioroz, and E. Mazur

Magnetism

- Multichannel Anderson impurity behavior in a pure hybridization impurity model (4 pages) 212401
Jianhui Dai
- Thermally activated itinerant metamagnetic transition in $\text{LaFe}_{11.7}\text{Si}_{1.3}$ (4 pages) 212402
Hong-wei Zhang, Fang Wang, Tong-yun Zhao, Shao-ying Zhang, Ji-rong Sun, and Bao-gen Shen
- Interference effect in the Landau-Zener tunneling of the antiferromagnetically coupled dimer of single-molecule magnets (4 pages) 212403
D. A. Garanin
- Evidence for magnetic clusters in BaCoO_3 (4 pages) 212404
V. Pardo, J. Rivas, D. Baldomir, M. Iglesias, P. Blaha, K. Schwarz, and J. E. Arias



Magnetic transition in compressed Fe_3C from x-ray emission spectroscopy (4 pages)	212405
Jung-Fu Lin, Viktor V. Struzhkin, Ho-kwang Mao, Russell J. Hemley, Paul Chow, Michael Y. Hu, and Jie Li	
Temperature-dependent magnetization in a ferromagnetic bilayer consisting of two materials with different Curie temperatures (4 pages)	212406
J. Wu, G. S. Dong, and Xiaofeng Jin	
Quantum coherence in a ferromagnetic metal: Time-dependent conductance fluctuations (4 pages)	212407
S. Lee, A. Trionfi, and D. Natelson	
Muon spin relaxation in DyVO_4 and TbVO_4 (4 pages)	212408
S. J. Blundell, I. M. Marshall, W. Hayes, and F. L. Pratt	
Thermal fluctuations and longitudinal relaxation of single-domain magnetic particles at elevated temperatures (4 pages)	212409
D. A. Garanin and O. Chubykalo-Fesenko	
Isotope-driven perturbation of the ground-state properties in (Sm, Gd)-Sr manganites near the half-doped hole concentration (4 pages)	212410
I. Isaac, J. Jung, J. P. Franck, and M. Abdelhadi	
Quenched-disorder-induced magnetization jumps in (Sm, Sr) MnO_3 (4 pages)	212411
L. M. Fisher, A. V. Kalinov, I. F. Voloshin, N. A. Babushkina, D. I. Khomskii, Y. Zhang, and T. T. M. Palstra	
Large magnetodielectric effects in orthorhombic HoMnO_3 and YMnO_3 (4 pages)	212412
B. Lorenz, Y. Q. Wang, Y. Y. Sun, and C. W. Chu	
Transverse magnetic anisotropy in Mn_{12} acetate: Direct determination by inelastic neutron scattering (4 pages)	212413
Roland Bircher, Grégory Chaboussant, Andreas Sieber, Hans U. Güdel, and Hannu Mutka	
Superfluidity and superconductivity	
Direct evidence for tailorable flux-pinning force and its anisotropy in $\text{RBa}_2\text{Cu}_3\text{O}_{7-\delta}$ multilayers (4 pages)	212501
C. Cai, B. Holzapfel, J. Hänisch, and L. Schultz	
Nonlinearity of the field induced by a rotating superconducting shell (3 pages)	212502
Jorge Berger	
Internal magnetic field of superconducting ferromagnets (4 pages)	212503
Grigory I. Leviev, Menachem I. Tsindlekht, Edouard B. Sonin, and Israel Felner	
Electron-phonon coupling in a boron-doped diamond superconductor (4 pages)	212504
H. J. Xiang, Zhenyu Li, Jinlong Yang, J. G. Hou, and Qingshi Zhu	
Coherent current transport in wide ballistic Josephson junctions (4 pages)	212505
P. Samuelsson, Å. Ingerman, G. Johansson, E. V. Bezuglyi, V. S. Shumeiko, G. Wendin, R. Kürsten, A. Richter, T. Matsuyama, and U. Merkt	
Field-induced metal-insulator transition in partially deuterated κ -(BEDT-TTF) $_2\text{Cu}[\text{N}(\text{CN})_2]\text{Br}$ (4 pages)	212506
Atsushi Kawamoto, Masato Yamasita, and Ken-ichi Kumagai	
Effect of impurity resonance states on the NMR spectra of high- T_c cuprates (4 pages)	212507
J. Chang, Y. H. Su, H. G. Luo, H. T. Lu, and T. Xiang	

Spin transport in diffusive superconductors (<i>4 pages</i>)	212508
Jan Petter Morten, Arne Brataas, and Wolfgang Belzig	
Full counting statistics of Cooper pair shuttling (<i>4 pages</i>)	212509
Alessandro Romito and Yu. V. Nazarov	
Anomalous parallel-field negative magnetoresistance in ultrathin films near the superconductor-insulator transition (<i>4 pages</i>)	212510
Kevin A. Parendo, L. M. Hernandez, A. Bhattacharya, and A. M. Goldman	
Hall conductivity in unconventional charge-density-wave systems (<i>4 pages</i>)	212511
D. N. Aristov and R. Zeyher	
Spin-resonance peak in $\text{Na}_x\text{CoO}_2 \cdot y\text{H}_2\text{O}$ superconductors: A probe of the pairing symmetry (<i>4 pages</i>)	212512
Jian-Xin Li and Z. D. Wang	
Density of states in <i>d</i> -wave superconductors of finite size (<i>4 pages</i>)	212513
Ya. V. Fominov and A. A. Golubov	
Carbon isotope effect in superconducting MgCNi_3 (<i>3 pages</i>)	212514
T. Klimczuk and R. J. Cava	

ARTICLES

Structure, structural phase transitions, mechanical properties, defects, etc.

High-pressure neutron diffraction study of the quasi-one-dimensional cuprate Sr_2CuO_3 (<i>7 pages</i>)	214101
Neil C. Hyatt, Lilian Gray, Ian Gameson, Peter P. Edwards, and Steve Hull	
Diamond and β -tin structures of Si studied with quantum Monte Carlo calculations (<i>8 pages</i>)	214102
D. Alfè, M. J. Gillan, M. D. Towler, and R. J. Needs	
Three-dimensional crystal-melt Wulff-shape and interfacial stiffness in the Al-Sn binary system (<i>11 pages</i>) . . .	214103
R. E. Napolitano and S. Liu	
Pressure-induced Jahn-Teller suppression in $\text{Rb}_2\text{CuCl}_4(\text{H}_2\text{O})_2$: Pseudo-Jahn-Teller effect (<i>9 pages</i>)	214104
F. Aguado, F. Rodríguez, R. Valiente, J. P. Itié, and P. Munsch	
Electron-irradiation-induced phase separation in GaSb nanoparticles (<i>6 pages</i>)	214105
H. Yasuda, H. Mori, and J. G. Lee	
Out-of-plane thermal conductivity of the layered thermoelectric oxide $\text{Bi}_{2-x}\text{Pb}_x\text{Sr}_2\text{Co}_2\text{O}_y$ (<i>5 pages</i>)	214106
I. Terasaki, H. Tanaka, A. Satake, S. Okada, and T. Fujii	
Electron-phonon coupling of α -Ga boron (<i>6 pages</i>)	214107
Yanming Ma, John S. Tse, Dennis D. Klug, and Rajeev Ahuja	
X-ray study of the synthesis of boron oxides at high pressure: Phase diagram and equation of state (<i>6 pages</i>)	214108
Delia Nieto-Sanz, Paul Loubeyre, Wilson Crichton, and Mohamed Mezouar	
Structural and electronic properties of <i>n</i> -doped and <i>p</i> -doped SrTiO_3 (<i>8 pages</i>)	214109
Weidong Luo, Wenhui Duan, Steven G. Louie, and Marvin L. Cohen	
Sequential classical-quantum description of the absorption spectrum of the hydrated electron (<i>4 pages</i>)	214110
Valdemir Ludwig, Kaline Coutinho, and Sylvio Canuto	
Competing structural instabilities in the ferroelectric Aurivillius compound $\text{SrBi}_2\text{Ta}_2\text{O}_9$ (<i>14 pages</i>)	214111
J. M. Perez-Mato, M. Aroyo, Alberto García, P. Blaha, K. Schwarz, J. Schweifer, and K. Parlinski	

First-principles determination of ferroelectric instabilities in Aurivillius compounds (8 pages)	214112
R. Machado, M. G. Stachiotti, R. L. Migoni, and A. Huanosta Tera	
Elastic constants and the effect of strain on monovacancy concentration in fcc hard-sphere crystals (6 pages)	214113
Sang Kyu Kwak and David A. Kofke	
High-pressure x-ray diffraction and Raman spectroscopy of HfV_2O_7 (4 pages)	214114
U. L. C. Hemamala, F. El-Ghussein, A. M. Goedken, B. Chen, Ch. Leroux, and M. B. Kruger	
Hyperfine structure and homogeneous broadening in $\text{Pr}^{3+}:\text{KY}(\text{WO}_4)_2$ (8 pages)	214115
H. L. Xu, M. Nilsson, S. Ohser, N. Rauhut, S. Kröll, M. Aguiló, and F. Díaz	
Hole-burning techniques for isolation and study of individual hyperfine transitions in inhomogeneously broadened solids demonstrated in $\text{Pr}^{3+}:\text{Y}_2\text{SiO}_5$ (11 pages)	214116
Mattias Nilsson, Lars Rippe, Stefan Kröll, Robert Klieber, and Dieter Suter	
Inhomogeneous, disordered, and partially ordered systems	
Sliding spin-density wave in $(\text{TMTSF})_2\text{PF}_6$ studied with narrow-band noise (13 pages)	214201
Tomoyuki Sekine, Norikazu Satoh, Mitsuhiro Nakazawa, and Toshikazu Nakamura	
Critical dynamics near the glass transition as explored with muon spin relaxation (7 pages)	214202
F. J. Bermejo, I. Bustinduy, M. A. González, S. H. Chong, C. Cabrillo, and S. F. J. Cox	
Effect of increasing disorder on the critical behavior of a Coulomb system (13 pages)	214203
Michael H. Overlin, Lee A. Wong, and Clare C. Yu	
Acoustic and thermal properties of silica aerogels and xerogels (8 pages)	214204
S. Caponi, G. Carini, G. D'Angelo, A. Fontana, O. Pilla, F. Rossi, F. Terki, G. Tripodo, and T. Woignier	
Photoelasticity of sodium silicate glass from first principles (9 pages)	214205
D. Donadio, M. Bernasconi, and F. Tassone	
Localization-delocalization transition in the quasi-one-dimensional ladder chain with correlated disorder (9 pages)	214206
Tigran Sedrakyan and Alexander Ossipov	
Dynamics, dynamical systems, lattice effects, quantum solids, etc.	
Phase analysis of vibrational wave packets in the ground and excited states in polydiacetylene (6 pages)	214301
Mitsuhiro Ikuta, Yoshiharu Yuasa, Tatsumi Kimura, Hiroo Matsuda, and Takayoshi Kobayashi	
Acoustic lens design by genetic algorithms (9 pages)	214302
A. Håkansson, J. Sánchez-Dehesa, and L. Sanchis	
Negative thermal expansion in cubic ZrMo_2O_8 : Inelastic neutron scattering and lattice dynamical studies (6 pages)	214303
R. Mittal, S. L. Chaplot, H. Schober, A. I. Kolesnikov, C.-K. Loong, C. Lind, and A. P. Wilkinson	
Level repulsions of bulk acoustic waves in composite materials (6 pages)	214304
Tsung-Tsong Wu and Zi-Gui Huang	
Neutron scattering study of hydrogen dynamics in $\text{Pr}_2\text{Fe}_{17}\text{H}_5$ (5 pages)	214305
E. Mamontov, T. J. Udovic, O. Isnard, and J. J. Rush	

Lattice dynamics and thermal properties of CaWO_4 (9 pages)	214306
A. Senyshyn, H. Kraus, V. B. Mikhailik, and V. Yakovyna	
Picosecond acoustic phonon pulse propagation in silicon (8 pages)	214307
B. C. Daly, T. B. Norris, J. Chen, and J. B. Khurgin	
Magnetism	
Weak antiferromagnetism and dimer order in quantum systems of coupled tetrahedra (5 pages)	214401
Valeri N. Kotov, Michael E. Zhitomirsky, Maged Elhajal, and Frédéric Mila	
Resonant x-ray scattering study of magnetic-dipole and electric-quadrupole order in $\text{U}_{0.75}\text{Np}_{0.25}\text{O}_2$ (9 pages)	214402
S. B. Wilkins, J. A. Paixão, R. Caciuffo, P. Javorsky, F. Wastin, J. Rebizant, C. Detlefs, N. Bernhoeft, P. Santini, and G. H. Lander	
Intra- and inter-multiplet magnetic excitations in a tetrairon(III) molecular cluster (7 pages)	214403
S. Carretta, P. Santini, G. Amoretti, T. Guidi, R. Caciuffo, A. Candini, A. Cornia, D. Gatteschi, M. Plazanet, and J. A. Stride	
Orbital and spin interplay in spin-gap formation in pyroxene ATiSi_2O_6 ($A=\text{Na}, \text{Li}$) (12 pages)	214404
Toshiya Hikihara and Yukitoshi Motome	
Transition between antiferromagnetic and ferromagnetic states in itinerant-electron $\text{La}(\text{Fe}_x\text{Al}_{1-x})_{13}$ compounds (16 pages)	214405
K. Irisawa, A. Fujita, K. Fukamichi, M. Yamada, H. Mitamura, T. Goto, and K. Koyama	
Magnetization of uncovered and V-covered ultrathin $\text{Fe}(100)$ films on $\text{V}(100)$ (6 pages)	214406
H. Fritzsche, Y. T. Liu, J. Hauschild, and H. Maletta	
Upward renormalization of the antiferromagnetic mode in the paramagnetic phase of CsMnBr_3 (5 pages)	214407
E. Rastelli and A. Tassi	
Quantum dynamics of the molecular magnet driven by external magnetic fields (5 pages)	214408
Miao Mai, Ximing Cheng, Xiang-Gui Li, and Ping Zhang	
Experimental and computational investigation of structure and magnetism in pyrite $\text{Co}_{1-x}\text{Fe}_x\text{S}_2$: Chemical bonding and half-metallicity (8 pages)	214409
K. Ramesha, Ram Seshadri, Claude Ederer, Tao He, and M. A. Subramanian	
Understanding the electronic structure, optical, and vibrational properties of the Fe_8Br_8 single-molecule magnet (9 pages)	214410
Tunna Baruah, Jens Kortus, Mark R. Pederson, Roman Wesołowski, Jason T. Haraldsen, Janice L. Musfeldt, J. Micah North, David Zipse, and Naresh S. Dalal	
Magnetic anisotropy and quantized spin waves in hematite nanoparticles (6 pages)	214411
S. N. Klausen, K. Lefmann, P.-A. Lindgård, L. Theil Kuhn, C. R. H. Bahl, C. Frandsen, S. Mørup, B. Roessli, N. Cavadini, and C. Niedermayer	
Effective exchange interaction in a quasi-two-dimensional self-assembled nanoparticle array (6 pages)	214412
U. Wiedwald, M. Cercez, M. Farle, K. Fauth, G. Schütz, K. Zürn, H.-G. Boyen, and P. Ziemann	
Estimates of the critical exponents of single-crystal $\text{La}_{0.73}\text{Ba}_{0.27}\text{MnO}_3$ (8 pages)	214413
Wei Li, H. P. Kunkel, X. Z. Zhou, Gwyn Williams, Y. Mukovskii, and D. Shulyatev	
Magnetic phase behavior of the ferrimagnetic doped cobaltite $\text{Nd}_{1-x}\text{Sr}_x\text{CoO}_3$ (7 pages)	214414
Douglas D. Stauffer and C. Leighton	

Magnetic and mechanical buckling: Modified Landau theory approach to study phase transitions in micromagnetic disks and compressed rods (19 pages)	214415
Sergey Savel'ev and Franco Nori	
Crystal structures and magnetic order of $\text{La}_{0.5+\delta}\text{A}_{0.5-\delta}\text{Mn}_{0.5+\epsilon}\text{Ru}_{0.5-\epsilon}\text{O}_3$ (A=Ca, Sr, Ba): Possible orbital glass ferromagnetic state (7 pages)	214416
E. Granado, Q. Huang, J. W. Lynn, J. Gopalakrishnan, and K. Ramesha	
<i>Ab initio</i> determination of Kerr angles in $\text{Cu}_4\text{Ni}_8\text{Cu}_n\text{Ni}_9/\text{Cu}(100)$ ($n=2-10$) (6 pages)	214417
I. Reichl, R. Hammerling, A. Vernes, P. Weinberger, C. Sommers, and L. Szunyogh	
Weak itinerant ferromagnetism and electronic and crystal structures of alkali-metal iron antimonides: $\text{NaFe}_4\text{Sb}_{12}$ and $\text{KFe}_4\text{Sb}_{12}$ (12 pages)	214418
A. Leithe-Jasper, W. Schnelle, H. Rosner, M. Baenitz, A. Rabis, A. A. Gippius, E. N. Morozova, H. Borrmann, U. Burkhardt, R. Ramlau, U. Schwarz, J. A. Mydosh, Y. Grin, V. Ksenofontov, and S. Reiman	
Numerical simulation of domain walls in Fe whiskers and their interaction with deposited thin films (4 pages)	214419
V. Christoph and R. Schäfer	
Nonuniform phases in metals with local moments (5 pages)	214420
Angsula Ghosh and E. Miranda	
Metastable magnetic response across the antiferromagnetic to ferromagnetic transition in Gd_5Ge_4 (6 pages)	214421
M. K. Chattopadhyay, M. A. Manekar, A. O. Pecharsky, V. K. Pecharsky, K. A. Gschneidner, Jr., J. Moore, G. K. Perkins, Y. V. Bugoslavsky, S. B. Roy, P. Chaddah, and L. F. Cohen	
Spanning avalanches in the three-dimensional Gaussian random-field Ising model with metastable dynamics: Field dependence and geometrical properties (14 pages)	214422
Francisco J. Pérez-Reche and Eduard Vives	
Contactless magnetoresistance studies of Co/Cu multilayers using the infrared magnetorefractive effect (7 pages)	214423
M. Vopsaroiu, D. Bozec, J. A. D. Matthew, S. M. Thompson, C. H. Marrows, and M. Perez	
Uncorrelated and correlated nanoscale lattice distortions in the paramagnetic phase of magnetoresistive manganites (8 pages)	214424
V. Kiryukhin, A. Borissov, J. S. Ahn, Q. Huang, J. W. Lynn, and S.-W. Cheong	
Mössbauer spectral study of the magnetocaloric $\text{FeMnP}_{1-x}\text{As}_x$ compounds (9 pages)	214425
Raphaël P. Hermann, O. Tegus, E. Brück, K. H. J. Buschow, F. R. de Boer, Gary J. Long, and Fernande Grandjean	
Local atomic and electronic structure in LaMnO_3 across the orbital ordering transition (6 pages)	214426
Raquel A. Souza, Narcizo M. Souza-Neto, Aline Y. Ramos, Hélio C. N. Tolentino, and Eduardo Granado	
Phase transitions in the pseudogap Anderson and Kondo models: Critical dimensions, renormalization group, and local-moment criticality (24 pages)	214427
Lars Fritz and Matthias Vojta	
Long-range oscillatory exchange interaction between antiferromagnetic FeMn layers across a Cu spacer (5 pages)	214428
J. W. Cai, W. Y. Lai, J. Teng, F. Shen, Z. Zhang, and L. M. Mei	

Thermodynamics of a spin- $\frac{1}{2}$ chain coupled to Einstein phonons (10 pages)	214429
Alexander Bühler, Götz S. Uhrig, and Jaan Oitmaa	
Macroscopic quantum tunneling in small antiferromagnetic particles: Effects of a strong magnetic field (10 pages)	214430
B. A. Ivanov and V. E. Kireev	
Individual monolayer analysis of anomalous hysteresis loops (5 pages)	214431
Huai-Yu Wang, Kun Xun, and Lin Xiao	
Models for the magnetic ac susceptibility of granular superferromagnetic CoFe/Al ₂ O ₃ (7 pages)	214432
O. Petravic, A. Glatz, and W. Kleemann	
Low-temperature permittivity of insulating perovskite manganites (6 pages)	214433
J. L. Cohn, M. Peterca, and J. J. Neumeier	
Magnetic short-range order and reentrant-spin-glass-like behavior in CoCr ₂ O ₄ and MnCr ₂ O ₄ by means of neutron scattering and magnetization measurements (12 pages)	214434
K. Tomiyasu, J. Fukunaga, and H. Suzuki	
Magnetic, thermal, and electrical properties of La _{1-x} Ca _x CrO ₃ (0 ≤ x ≤ 0.5) (7 pages)	214435
J. J. Neumeier and Hirotoishi Terashita	
Mean-field theory of the spin-Peierls transition (12 pages)	214436
E. Orignac and R. Chitra	
Stability of U(1) spin liquids in two dimensions (9 pages)	214437
Michael Hermele, T. Senthil, Matthew P. A. Fisher, Patrick A. Lee, Naoto Nagaosa, and Xiao-Gang Wen	
Structure and magnetic properties of ultrathin Ni films on Pt(111) with Co buffer layers (6 pages)	214438
C. S. Shern, H. Y. Ho, S. H. Lin, and C. W. Su	
Magnetic quantum tunneling in Ca ₃ Co ₂ O ₆ studied by ac susceptibility: Temperature and magnetic-field dependence of the spin-relaxation time (7 pages)	214439
V. Hardy, D. Flahaut, M. R. Lees, and O. A. Petrenko	
Superfluidity and superconductivity	
Critical current in Nb-Cu-Nb junctions with nonideal interfaces (4 pages)	214501
Y. Blum, A. Tsukernik, M. Karpovski, and A. Palevski	
High-pressure phase diagram of Bi ₂ Sr ₂ CaCu ₂ O _{8+δ} single crystals (7 pages)	214502
Xiao-Jia Chen, Viktor V. Struzhkin, Russell J. Hemley, Ho-kwang Mao, and Chris Kendziora	
Elastic forward scattering in the cuprate superconducting state (13 pages)	214503
L. Zhu, P. J. Hirschfeld, and D. J. Scalapino	
Effect of substrate vicinality on the formation of precipitates and twins in YBa ₂ Cu ₃ O _{7-δ} thin films (6 pages) ..	214504
R. I. Chakalova, T. J. Jackson, G. Passerieux, I. P. Jones, P. Mikheenko, C. M. Muirhead, and C. N. W. Darlington	
Electronic specific heat and low-energy quasiparticle excitations in the superconducting state of La _{2-x} Sr _x CuO ₄ single crystals (14 pages)	214505
Hai-Hu Wen, Zhi-Yong Liu, Fang Zhou, Jiwu Xiong, Wenxing Ti, Tao Xiang, Seiki Komiya, Xuefeng Sun, and Yoichi Ando	
Phase slips in superconducting films with constrictions (6 pages)	214506
Sang L. Chu, A. T. Bollinger, and A. Bezryadin	

ac-induced thermal vortex escape in magnetic-field-embedded long annular Josephson junctions (7 pages) . . .	214507
Niels Grønbech-Jensen and Matteo Cirillo	
Critical currents in vicinal $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ films (9 pages)	214508
J. H. Durrell, G. Burnell, V. N. Tsaneva, Z. H. Barber, M. G. Blamire, and J. E. Evetts	
Surface location of sodium atoms attached to ^3He nanodroplets (5 pages)	214509
F. Stienkemeier, O. Bünermann, R. Mayol, F. Ancilotto, M. Barranco, and M. Pi	
Order parameter in superconductors with nondegenerate bands (8 pages)	214510
I. A. Sergienko and S. H. Curnoe	
Influence of higher d -wave gap harmonics on the dynamical magnetic susceptibility of high-temperature superconductors (13 pages)	214511
A. P. Schnyder, A. Bill, C. Mudry, R. Gilardi, H. M. Rønnow, and J. Mesot	
dc transport in superconducting point contacts: A full-counting-statistics view (18 pages)	214512
J. C. Cuevas and W. Belzig	
Micro-SQUID microscopy of vortices in a perforated superconducting Al film (5 pages)	214513
C. Veauvy, K. Hasselbach, and D. Mailly	
Periodic coherence-peak height modulations in superconducting $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+\delta}$ (8 pages)	214514
A. Fang, C. Howald, N. Kaneko, M. Greven, and A. Kapitulnik	
Dzyaloshinsky-Moriya spin canting in the low-temperature tetragonal phase of $\text{La}_{2-x-y}\text{Eu}_y\text{Sr}_x\text{CuO}_4$ (21 pages)	214515
M. Hücker, V. Kataev, J. Pommer, U. Ammerahl, A. Revcolevschi, J. M. Tranquada, and B. Büchner	
Magnetic field dependence of the reversible mixed-state properties of superconducting MgB_2 single crystals and the influence of artificial defects (12 pages)	214516
M. Zehetmayer, M. Eisterer, J. Jun, S. M. Kazakov, J. Karpinski, and H. W. Weber	
Universal intrinsic scale of the hole concentration in high- T_c cuprates (10 pages)	214517
T. Honma, P. H. Hor, H. H. Hsieh, and M. Tanimoto	
Reversible magnetization of a strong-pinning superconductor (6 pages)	214518
A. M. Campbell, J. W. Loram, N. Hari-Babu, J. R. Cooper, and D. A. Cardwell	
Normal-to-planar superfluid transition in ^3He (9 pages)	214519
Martino De Prato, Andrea Pelissetto, and Ettore Vicari	
Dynamics and energy distribution of nonequilibrium quasiparticles in superconducting tunnel junctions (13 pages)	214520
K. Segall, C. Wilson, L. Li, L. Frunzio, S. Friedrich, M. C. Gaidis, and D. E. Prober	
Guidance and control in a Josephson charge qubit (9 pages)	214521
J. F. Ralph, E. J. Griffith, T. D. Clark, and M. J. Everitt	
Elastic modes of vortex configurations in thin disks (13 pages)	214522
L. R. E. Cabral and F. M. Peeters	
In-phase vortex flow and superradiance in a Josephson superlattice embedded in a waveguide (10 pages)	214523
A. V. Chiginev and V. V. Kurin	
Spontaneous spin current near the interface between unconventional superconductors and ferromagnets (8 pages)	214524
Kazuhiro Kuboki and Hidenori Takahashi	

Evidence for CuO conducting band splitting in the nodal direction of $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+\delta}$ (6 pages)	214525
A. A. Kordyuk, S. V. Borisenko, A. N. Yaresko, S.-L. Drechsler, H. Rosner, T. K. Kim, A. Koitzsch, K. A. Nenkov, M. Knupfer, J. Fink, R. Follath, H. Berger, B. Keimer, S. Ono, and Yoichi Ando	
Compressibility of CeMIn_5 and Ce_2MIn_8 ($M=\text{Rh, Ir, and Co}$) compounds (8 pages)	214526
Ravhi S. Kumar, A. L. Cornelius, and J. L. Sarrao	
Systematic reduction of magnetization by an ac transverse field and of the anomalous magnetization peak in a N_2 -annealed $\text{Tl}_2\text{Ba}_2\text{CuO}_6$ single crystal (5 pages)	214527
Dong Ho Kim, Heon-Jung Kim, N. H. Dan, and Sung-Ik Lee	
Transport properties of $\text{Nd}_{1.2}\text{Ba}_{1.8}\text{Cu}_3\text{O}_x$ ultrathin films by field-effect doping (7 pages)	214528
M. Salluzzo, A. Cassinese, G. M. De Luca, A. Gambardella, A. Priglobbo, and R. Vaglio	
Structure and orientation of the moving vortex lattice in clean type-II superconductors (8 pages)	214529
Dingping Li, Andrey M. Malkin, and Baruch Rosenstein	
c -axis transport and phenomenology of the pseudogap state in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+\delta}$ (5 pages)	214530
M. Giura, R. Fastampa, S. Sarti, and E. Silva	
Gaussian fluctuation corrections to the BCS mean-field gap amplitude at zero temperature (6 pages)	214531
Š. Kos, A. J. Millis, and A. I. Larkin	

ERRATA

Publisher's Note: Unusual doublet structure in proton magnetic-resonance spectra of yttrium and lutetium trihydrides [Phys. Rev. B 70 , 134111 (2004)] (1 page)	219901(E)
G. Majer, A. Telfah, F. Grinberg, and R. G. Barnes	
Publisher's Note: Universal and scaled relaxation of interacting magnetic nanoparticles [Phys. Rev. B 70 , 172411 (2004)] (1 page)	219902(E)
Xi Chen, S. Sahoo, W. Kleemann, S. Cardoso, and P. P. Freitas	
Publisher's Note: Infrared study of giant dielectric constant in Li- and Ti-doped NiO [Phys. Rev. B 70 , 172106 (2004)] (1 page)	219903(E)
Jungho Kim, Youngwoo Lee, M. G. Kim, A. Souchkov, J. S. Lee, H. D. Drew, S.-J. Oh, C. W. Nan, and E. J. Choi	
Erratum: Magnetic structure of TbMnO_3 by neutron diffraction [Phys. Rev. B 70 , 012401 (2004)] (1 page)	219904(E)
R. Kajimoto, H. Yoshizawa, H. Shintani, T. Kimura, and Y. Tokura	
Publisher's Note: Two-band effects in the angular dependence of H_{c2} of MgB_2 single crystals [Phys. Rev. B 70 , 132503 (2004)] (1 page)	219905(E)
A. Rydh, U. Welp, A. E. Koshelev, W. K. Kwok, G. W. Crabtree, R. Brusetti, L. Lyard, T. Klein, C. Marcenat, B. Kang, K. H. Kim, K. H. P. Kim, H.-S. Lee, and S.-I. Lee	
Erratum: Magnetic contribution to the resistivity noise in a $\text{La}_{0.7}\text{Sr}_{0.3}\text{MnO}_3$ film grain boundary [Phys. Rev. B 63 , 132407 (2001)] (1 page)	219906(E)
R. Mathieu, P. Svedlindh, R. Gunnarsson, and Z. G. Ivanov	
Erratum: Theory of charge transport in diffusive normal metal/unconventional singlet superconductor contacts [Phys. Rev. B 69 , 144519 (2004)] (1 page)	219907(E)
Y. Tanaka, Yu. V. Nazarov, A. A. Golubov, and S. Kashiwaya	