PHYSICAL REVIEW B

For editorial and subscription correspondence, please see inside front cover
(ISSN: 0163-1829)

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

THIRD SERIES, VOLUME 64, NUMBER 18 ***CONTENTS*** **1 NOVEMBER 2001-II**

Announcement: Electronic-First Publication and Article Numbers i

RAPID COMMUNICATIONS

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

Generalized Ramsauer-Townsend effect in extended x-ray-absorption fine structure *(4 pages)* . . . . . 180101(R)
M. L. Hanham and R. F. Pettifer

Inhomogeneous, disordered, and partially ordered systems

Enhanced plastic strain in Zr-based bulk amorphous alloys *(4 pages)* . . . . . 180201(R)
L.-Q. Xing, Y. Li, K. T. Ramesh, J. Li, and T. C. Hufnagel

Persistent hole burning in multiple-scattering optical media *(4 pages)* . . . . . 180202(R)
Makoto Tomita, Tetsu Ito, and Satoshi Hattori

Liquid-liquid phase transition in Pb-Sn melts *(4 pages)* . . . . . 180203(R)
F. Q. Zu, Z. G. Zhu, L. J. Guo, B. Zhang, J. P. Shui, and C. S. Liu

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

Coherent phonon generation mechanism in solids *(4 pages)* . . . . . 180301(R)
Ahmed I. Lobad and Antoinette J. Taylor

Magnetism

Effect of GGA on the half-metallicity of the itinerant ferromagnet CoS_2 *(4 pages)* . . . . . 180401(R)
Tatsuya Shishidou, A. J. Freeman, and Ryoji Asahi

Localized *f* electrons in $Ce_xLa_{1-x}RhIn_5$: de Haas–van Alphen measurements *(4 pages)* . . . . . 180402(R)
U. Alver, R. G. Goodrich, N. Harrison, D. W. Hall, E. C. Palm, T. P. Murphy, S. W. Tozer, P. G. Pagliuso, N. O. Moreno, J. L. Sarrao, and Z. Fisk

Structural effect on colossal magnetoresistivity in manganites: Bond versus band *(4 pages)* . . . . . 180403(R)
Despina Louca, T. Egami, W. Dmowski, and J. F. Mitchell

Lower critical dimension of Ising spin glasses *(4 pages)* . . . . . 180404(R)
A. K. Hartmann and A. P. Young

Resistivity anomaly in the vicinity of a structural phase transition in $La_{1-x}Sr_xMnO_3$ *(4 pages)* . . . . . 180405(R)
P. Mandal, B. Bandyopadhyay, and B. Ghosh

Oxygen-induced grain boundary effects on magnetotransport properties of $Sr_2FeMoO_{6+\delta}$ *(4 pages)* . . . . . 180406(R)
D. Niebieskikwiat, A. Caneiro, R. D. Sánchez, and J. Fontcuberta

Copyright 2001 by The American Physical Society

(Continued)

0163-1829(20011101)64:18;1-7

PHYSICAL REVIEW B THIRD SERIES, VOLUME 64, NUMBER 18 1 NOVEMBER 2001-II

Induced V and reduced Fe moments at the interface of Fe/V(001) superlattices *(4 pages)* . . . . . 180407(R)
A. Scherz, H. Wende, P. Poulopoulos, J. Lindner, K. Baberschke, P. Blomquist, R. Wäppling, F. Wilhelm, and N. B. Brookes

Near-complete spin polarization in atomically-smooth chromium-dioxide epitaxial films prepared using a CVD liquid precursor *(3 pages)* . . . . . 180408(R)
A. Anguelouch, A. Gupta, Gang Xiao, D. W. Abraham, Y. Ji, S. Ingvarsson, and C. L. Chien

Charge dynamics in the colossal magnetoresistance pyrochlore $Tl_2Mn_2O_7$ *(4 pages)* . . . . . 180409(R)
H. Okamura, T. Koretsune, M. Matsunami, S. Kimura, T. Nanba, H. Imai, Y. Shimakawa, and Y. Kubo

Superfluidity and superconductivity

Energy gap and proximity effect in MgB_2 superconducting wires *(4 pages)* . . . . . 180501(R)
R. Prozorov, R. W. Giannetta, S. L. Bud'ko, and P. C. Canfield

Surface electronic structure of Sr_2RuO_4 *(4 pages)* . . . . . 180502(R)
K. M. Shen, A. Damascelli, D. H. Lu, N. P. Armitage, F. Ronning, D. L. Feng, C. Kim, Z.-X. Shen, D. J. Singh, I. I. Mazin, S. Nakatsuji, Z. Q. Mao, Y. Maeno, T. Kimura, and Y. Tokura

Superconductivity in the correlated pyrochlore $Cd_2Re_2O_7$ *(4 pages)* . . . . . 180503(R)
R. Jin, J. He, S. McCall, C. S. Alexander, F. Drymiotis, and D. Mandrus[1,2]

Nonlinear backreaction in a quantum mechanical SQUID *(4 pages)* . . . . . 180504(R)
J. F. Ralph, T. D. Clark, M. J. Everitt, and P. Stiffell

Photoemission study of Pb doped $Bi_2Sr_2CaCu_2O_8$: A Fermi surface picture *(4 pages)* . . . . . 180505(R)
P. V. Bogdanov, A. Lanzara, X. J. Zhou, S. A. Kellar, D. L. Feng, E. D. Lu, H. Eisaki, J.-I. Shimoyama, K. Kishio, Z. Hussain, and Z. X. Shen

Determination of superconducting anisotropy from magnetization data on random powders as applied to $LuNi_2B_2C$, YNi_2B_2C, and MgB_2 *(4 pages)* . . . . . 180506(R)
S. L. Bud'ko, V. G. Kogan, and P. C. Canfield

Dielectric functions and collective excitations in MgB_2 *(4 pages)* . . . . . 180507(R)
V. P. Zhukov, V. M. Silkin, E. V. Chulkov, and P. M. Echenique

Quantum partition noise in a superconducting tunnel junction *(4 pages)* . . . . . 180508(R)
K. Segall and D. E. Prober

Electron-phonon coupling induced pseudogap and the superconducting transition in $Ba_{0.67}K_{0.33}BiO_3$ *(4 pages)* . . . . . 180509(R)
A. Chainani, T. Yokoya, T. Kiss, S. Shin, T. Nishio, and H. Uwe

Electronic structures of antiperovskite superconductors $MgXNi_3$ (X = B, C, and N) *(4 pages)* . . . . . 180510(R)
J. H. Shim, S. K. Kwon, and B. I. Min

Cu nuclear quadrupole resonance study of site disorder and chemical pressure effects on $Y(Ba_{1-x}Sr_x)_2Cu_4O_8$ *(4 pages)* . . . . . 180511(R)
Y. Itoh, S. Adachi, T. Machi, and N. Koshizuka

Depinning of a superfluid vortex line by Kelvin waves *(4 pages)* . . . . . 180512(R)
L. A. K. Donev, L. Hough, and R. J. Zieve

Qualitative understanding of the sign of t' asymmetry in the extended t-J model and relevance for pairing properties *(4 pages)* . . . . . 180513(R)
G. B. Martins, J. C. Xavier, L. Arrachea, and E. Dagotto

Anomalous NMR magnetic shifts in $CeCoIn_5$ *(4 pages)* . . . . . 180514(R)
N. J. Curro, B. Simovic, P. C. Hammel, P. G. Pagliuso, J. L. Sarrao, J. D. Thompson, and G. B. Martins

(Continued)

PHYSICAL REVIEW B **THIRD SERIES, VOLUME 64, NUMBER 18** **1 NOVEMBER 2001-II**

ARTICLES

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

Vibrational line broadening in the mixed solid N_2–Kr: A high-pressure Raman study of the phase diagram *(8 pages)* 184101
H. T. Lotz and J. A. Schouten

Second nearest-neighbor modified embedded atom method potentials for bcc transition metals *(11 pages)* 184102
Byeong-Joo Lee, M.I. Baskes, Hanchul Kim, and Yang Koo Cho

Molecular dynamics simulation of the structure of yttria Y_2O_3 phases using pairwise interactions *(8 pages)* 184103
A. B. Belonoshko, G. Gutierrez, R. Ahuja, and B. Johansson

Dielectric behavior of paraelectric $KTaO_3$, $CaTiO_3$, and $(Ln_{1/2}Na_{1/2})TiO_3$ under a dc electric field *(6 pages)* 184104
Chen Ang, A. S. Bhalla, and L. E. Cross

Atomic structures and energetics of $LaNi_5$-H solid solution and hydrides *(10 pages)* 184105
Kazuyoshi Tatsumi, Isao Tanaka, Haruyuki Inui, Katsushi Tanaka, Masaharu Yamaguchi, and Hirohiko Adachi

Phase transitions in the quantum Ising and rotor models with a long-range interaction *(7 pages)* 184106
Amit Dutta and J. K. Bhattacharjee

Nucleation of *c*-BN on hexagonal boron nitride *(9 pages)* 184107
B. Mårlid, K. Larsson, and J.-O. Carlsson

Correlated insulating ground state of $Ce_3Bi_4Pt_3$ *(5 pages)* 184108
S. H. Liu

Calorimetric and x-ray diffraction studies of α-to-β structural phase transitions in HfW_2O_8 and ZrW_2O_8 *(5 pages)* 184109
Y. Yamamura, N. Nakajima, and T. Tsuji

Structural and chemical effects on EELS $L_{3,2}$ ionization edges in Ni-based intermetallic compounds *(9 pages)* 184110
P. L. Potapov, S. E. Kulkova, D. Schryvers, and J. Verbeeck

Dielectric, infrared, and Raman response of undoped $SrTiO_3$ ceramics: Evidence of polar grain boundaries *(10 pages)* 184111
J. Petzelt, T. Ostapchuk, I. Gregora, I. Rychetský, S. Hoffmann-Eifert, A. V. Pronin, Y. Yuzyuk, B. P. Gorshunov, S. Kamba, V. Bovtun, J. Pokorný, M. Savinov, V. Porokhonskyy, D. Rafaja, P. Vaněk, A. Almeida, M. R. Chaves, A. A. Volkov, M. Dressel, and R. Waser

X-ray diffuse scattering study on ionic-pair displacement correlations in relaxor lead magnesium niobate *(5 pages)* 184112
Naohisa Takesue, Yasuhiko Fujii, and Hoydoo You

Quantum-mechanical analysis of the equation of state of anatase TiO_2 *(9 pages)* 184113
M. Calatayud, P. Mori-Sánchez, A. Beltrán, A. Martín Pendás, E. Francisco, J. Andrés, and J. M. Recio

Monoclinic phase in the relaxor-based piezoelectric/ferroelectric $Pb(Mg_{1/3}Nb_{2/3})O_3$-$PbTiO_3$ system *(5 pages)* 184114
Z.-G. Ye, B. Noheda, M. Dong, D. Cox, and G. Shirane

Tracks of swift heavy ions in graphite studied by scanning tunneling microscopy *(7 pages)* 184115
J. Liu, R. Neumann, C. Trautmann, and C. Müller

Structural study of a $Ag_{3.4}In_{3.7}Sb_{76.4}Te_{16.5}$ quadruple compound utilized for phase-change optical disks *(7 pages)* 184116
Toshiyuki Matsunaga, Yukihiro Umetani, and Noboru Yamada

(Continued)

PHYSICAL REVIEW B THIRD SERIES, VOLUME 64, NUMBER 18 1 NOVEMBER 2001-II

Inhomogeneous, disordered, and partially ordered systems

Crystals of binary Lennard-Jones solids *(7 pages)* 184201
Thomas F. Middleton, Javier Hernández-Rojas, Paul N. Mortenson, and David J. Wales
Continuous distribution of thermodynamic microprocesses in complex metastable systems *(13 pages)* 184202
K. Krištiaková and P. Švec
Diffraction study of solid oxygen embedded in porous glasses *(9 pages)* 184203
D. Wallacher, R. Ackermann, P. Huber, M. Enderle, and K. Knorr

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

Collective dynamics of one-dimensional charge density waves *(5 pages)* 184301
Andreas Glatz, Sanjay Kumar, and Mai Suan Li
Neutron spectroscopy of $ReH_{0.09}$ *(6 pages)* 184302
V. E. Antonov, V. K. Fedotov, A. I. Harkunov, A. I. Kolesnikov, N. I. Novokhatskaya, G. Grosse, F. E. Wagner, T. Hansen, and A. S. Ivanov
Large contribution of long-wave phonon modes to nonradiative transitions from a bound soliton-antisoliton pair to the ground state in one-dimensional charge-density-wave models *(9 pages)* 184303
K. Iwano
Test of universal scaling of ac conductivity in ionic conductors *(5 pages)* 184304
C. León, P. Lunkenheimer, and K. L. Ngai
Magnon heat transport in $(Sr,Ca,La)_{14}Cu_{24}O_{41}$ *(6 pages)* 184305
C. Hess, C. Baumann, U. Ammerahl, B. Büchner, F. Heidrich-Meisner, W. Brenig, and A. Revcolevschi
Phonons and electron-phonon interaction by linear-response theory within the LAPW method *(9 pages)* 184306
R. Kouba, A. Taga, C. Ambrosch-Draxl, L. Nordström, and B. Johansson
First-principles theory of ionic diffusion with nondilute carriers *(17 pages)* 184307
A. Van der Ven, G. Ceder, M. Asta, and P. D. Tepesch

Magnetism

Surface magnetic phase diagram for a semi-infinite ferromagnet *(11 pages)* 184401
A. P. Popov and D. P. Pappas
Constrained-path quantum Monte Carlo simulations of the zero-temperature disordered two-dimensional Hubbard model *(11 pages)* 184402
M. Enjalran, F. Hébert, G. G. Batrouni, R. T. Scalettar, and Shiwei Zhang
Critical dimension of the transition from single switching to an exchange spring process in hard/soft exchange-coupled bilayers *(6 pages)* 184403
Shi-shen Yan, J. A. Barnard, Feng-ting Xu, J. L. Weston, and G. Zangari
Strain effect and the phase diagram of $La_{1-x}Ba_xMnO_3$ thin films *(7 pages)* 184404
Jun Zhang, Hidekazu Tanaka, Teruo Kanki, Jae-Hyoung Choi, and Tomoji Kawai
Step-induced in-plane orbital anisotropy in FeNi films on Cu(111) probed by magnetic circular x-ray dichroism *(12 pages)* 184405
S. Cherifi, C. Boeglin, S. Stanescu, J. P. Deville, C. Mocuta, H. Magnan, P. Le Fèvre, P. Ohresser, and N. B. Brookes
Analysis of disordered stripe magnetic domains in strained epitaxial Ni(001) films *(6 pages)* 184406
S. Hameed, P. Talagala, R. Naik, L. E. Wenger, V. M. Naik, and R. Proksch
Spin and orbital magnetic moments of $3d$ and $4d$ impurities in and on the (001) surface of bcc Fe *(6 pages)* 184407
V. Popescu, H. Ebert, B. Nonas, and P. H. Dederichs
Critical behavior of two-dimensional frustrated spin models with noncollinear order *(11 pages)* 184408
Pasquale Calabrese and Pietro Parruccini

(Continued)

PHYSICAL REVIEW B **THIRD SERIES, VOLUME 64, NUMBER 18** **1 NOVEMBER 2001-II**

Local distortions in $La_{0.7}Ca_{0.3}Mn_{1-b}A_bO_3$ (A=Ti and Ga) colossal magnetoresistance samples: Correlations with magnetization and evidence for cluster formation *(14 pages)* 184409
D. Cao, F. Bridges, M. Anderson, A. P. Ramirez, M. Olapinski, M. A. Subramanian, C. H. Booth, and G. H. Kwei
Finite-element modeling of extraordinary magnetoresistance in thin film semiconductors with metallic inclusions *(8 pages)* 184410
J. Moussa, L. R. Ram-Mohan, J. Sullivan, T. Zhou, D. R. Hines, and S. A. Solin
Angular dependence of the exchange bias obtained from magnetization and ferromagnetic resonance measurements in exchange-coupled bilayers *(5 pages)* 184411
J. Geshev, L. G. Pereira, and J. E. Schmidt
Shift of geometrically localized magnetic walls in thin films under a magnetic field *(4 pages)* 184412
N. García, V. V. Osipov, and E. V. Ponizovskaya
Equilibrium valleys in spin glasses at low temperature *(10 pages)* 184413
E. Marinari, O. C. Martin, and F. Zuliani
Thermoelectric behavior near the magnetic quantum critical point *(7 pages)* 184414
Indranil Paul and Gabriel Kotliar
Quantum jumps in the magnetization of a magnet with antiferromagnetic impurities *(5 pages)* 184415
A. S. Lagutin, A. Semeno, J. Vanacken, and Y. Bruynseraede
Low-frequency dynamic hysteresis in exchange-coupled $Ni_{81}Fe_{19}/Ir_{22}Mn_{78}$ bilayers *(9 pages)* 184416
Haiwen Xi, Robert M. White, Sining Mao, Zheng Gao, Zhijun Yang, and Edward Murdock
Magnetovolume effects and the p-T magnetic phase diagram of UNi_2Si_2 *(5 pages)* 184417
Fuminori Honda, Vladimir Sechovský, Gendo Oomi, Alexander V. Andreev, and Alois A. Menovsky
Antiferromagnetic integer-spin chains in a staggered magnetic field: Approaching the thermodynamic limit through the infinite-size density-matrix renormalization group *(6 pages)* 184418
Massimo Capone and Sergio Caprara
Ferromagnetic resonance studies of cobalt-copper alloys *(7 pages)* 184419
B. R. Pujada, E. H. C. P. Sinnecker, A. M. Rossi, and A. P. Guimarães
Conditions for efficient spin injection from a ferromagnetic metal into a semiconductor *(9 pages)* 184420
A. Fert and H. Jaffrès
Anisotropic optical spectra in a detwinned $LaMnO_3$ crystal *(5 pages)* 184421
K. Tobe, T. Kimura, Y. Okimoto, and Y. Tokura
Structural and transport properties of epitaxial Fe/ZnSe/FeCo magnetic tunnel junctions *(6 pages)* 184422
F. Gustavsson, J-M. George, V. H. Etgens, and M. Eddrief
Theory of magnetic properties and spin-wave dispersion for ferromagnetic (Ga,Mn)As *(8 pages)* 184423
Jürgen König, T. Jungwirth, and A. H. MacDonald
Growth phases and optical anisotropy of Co on preoxidized Cu(110) *(6 pages)* 184424
Th. Herrmann, K. Lüdge, W. Richter, N. Esser, P. Poulopoulos, J. Lindner, and K. Baberschke
Scaling of the transport properties in the $Y_{1-y}Pr_yBa_2Cu_3O_x$ system *(6 pages)* 184425
J. Vanacken, L. Trappeniers, P. Wagner, L. Weckhuysen, V. V. Moshchalkov, and Y. Bruynseraede
Linewidth of single-photon transitions in Mn_{12}-acetate *(4 pages)* 184426
Beth Parks, Joseph Loomis, Evan Rumberger, David N. Hendrickson, and George Christou
Anisotropic magnetization-induced second harmonic generation in Fe/Au superlattices *(10 pages)* 184427
K. Sato, A. Kodama, M. Miyamoto, A. V. Petukhov, K. Takanashi, S. Mitani, H. Fujimori, A. Kirilyuk, and Th. Rasing
Crystal structure and magnetism of the linear-chain copper oxides $Sr_5Pb_{3-x}Bi_xCuO_{12}$ *(7 pages)* 184428
K. Yamaura, Q. Huang, and E. Takayama-Muromachi
Perpendicular transport in Fe/Ge model heterostructures *(10 pages)* 184429
P. Weinberger, L. Szunyogh, C. Blaas, and C. Sommers
Exchange coupling in nanostructured CoO/NiFe networks *(4 pages)* 184430
L. Sun, Y. Ding, C. L. Chien, and P. C. Searson

(Continued)

PHYSICAL REVIEW B THIRD SERIES, VOLUME 64, NUMBER 18 1 NOVEMBER 2001-II

Phase diagram of the spin-orbital model on the square lattice *(6 pages)* 184431
E. Zasinas, O. P. Sushkov, and J. Oitmaa
Spin freezing and the ferromagnetic and reentrant spin-glass phases in a reentrant ferromagnet *(8 pages)* 184432
T. Sato, T. Ando, T. Ogawa, S. Morimoto, and A. Ito
Fluctuation theory of magnetic relaxation for two-dimensional ensembles of dipolar interacting nanoparticles *(10 pages)* 184433
S. I. Denisov and K. N. Trohidou
$4f$ instability and elastic properties in the metal system TmS in high magnetic fields *(7 pages)* 184434
Yoshiki Nakanishi, Sakon Takuo, Mitsuhiro Motokawa, Takeshi Matsumura, Yuichi Nemoto, Hirofumi Hazama, Terutaka Goto, and Takashi Suzuki
Second spin-density wave phase in metallic $V_{2-y}O_3$ close to the metal-insulator transition *(7 pages)* 184435
S. Klimm, M. Herz, R. Horny, G. Obermeier, M. Klemm, and S. Horn
Electron injection in Te-doped derivatives of $Tl_2Mn_2O_7$ pyrochlore *(6 pages)* 184436
P. Velasco, J. A. Alonso, M. J. Martínez-Lope, M. T. Casais, J. L. Martínez, M. T. Fernández-Díaz, and J. M. de Paoli
Magnetic hardening and spin-glass phenomena in nanocrystalline FeNbB at low temperatures *(7 pages)* 184437
I. Škorvánek, S. Skwirblies, and J. Kötzler
Kondo effect in $Ce_xLa_{1-x}Cu_{2.05}Si_2$ intermetallics *(11 pages)* 184438
I. Aviani, M. Miljak, V. Zlatić, K.-D. Schotte, C. Geibel, and F. Steglich
Nonlinear sigma models and quantum spin systems *(11 pages)* 184439
Antonio S. Gliozzi and Alberto Parola
Power-law relaxation decay in two-dimensional arrays of magnetic dots interacting by long-range dipole-dipole interactions *(7 pages)* 184440
L. C. Sampaio, R. Hyndman, F. S. de Menezes, J. P. Jamet, P. Meyer, J. Gierak, C. Chappert, V. Mathet, and J. Ferré
Thermodynamics of the one-dimensional half-filled-band Falicov-Kimball model *(6 pages)* 184441
C. A. Macêdo, L. G. Azevedo, and A. M. C. de Souza
Electric transport in Fe/ZnSe/Fe heterostructures *(10 pages)* 184442
H. C. Herper, P. Weinberger, A. Vernes, L. Szunyogh, and C. Sommers

Superfluidity and superconductivity

Decoupling of superconducting layers in the magnetic superconductor $RuSr_2GdCu_2O_8$ *(7 pages)* 184501
Manuel Houzet, Alexandre Buzdin, and Miodrag L. Kulić
Recursion method for nonhomogeneous superconductors: Proximity effect in superconductor-ferromagnet nanostructures *(8 pages)* 184502
E. Vecino, A. Martín-Rodero, and A. Levy Yeyati
Superconducting zero-temperature phase transition in two dimensions and in a magnetic field *(7 pages)* 184503
Wen-Chin Wu and Igor F. Herbut
Relation between flux formation and pairing in doped antiferromagnets *(5 pages)* 184504
P. Wróbel and R. Eder
Renormalization group and $1/N$ expansion for the three-dimensional Ginzburg-Landau-Wilson model *(11 pages)* 184505
Ian D. Lawrie and Dominic J. Lee
Critical-point scaling function for the specific heat of a Ginzburg-Landau superconductor *(11 pages)* 184506
Dominic J. Lee and Ian D. Lawrie
Magnetization of a current-carrying superconducting Corbino disk *(10 pages)* 184507
Ali A. Babaei Brojeny and John R. Clem
Momentum distribution curves in the superconducting state *(4 pages)* 184508
M. R. Norman, M. Eschrig, A. Kaminski, and J. C. Campuzano

(Continued)

PHYSICAL REVIEW B **THIRD SERIES, VOLUME 64, NUMBER 18** **1 NOVEMBER 2001-II**

Ground state of the three-band Hubbard model *(9 pages)* 184509
Takashi Yanagisawa, Soh Koike, and Kunihiko Yamaji
Bond-operator theory of doped antiferromagnets: From Mott insulators with bond-centered charge order to superconductors with nodal fermions *(19 pages)* 184510
Kwon Park and Subir Sachdev
Magnetotransport properties near the superconductor-insulator transition in two dimensions *(4 pages)* 184511
Denis Dalidovich and Philip Phillips
Theoretical study of the dynamic structure factor of superfluid ^{4}He *(16 pages)* 184512
J. Szwabiński and M. Weyrauch
Spatiotemporal intermittency in the critical dynamics of dc-driven two-dimensional frustrated Josephson arrays *(7 pages)* 184513
Italo F. Marino and Manuel G. Velarde
Peak effect, vortex-lattice melting line, and order-disorder transition in conventional and high-T_c superconductors *(14 pages)* 184514
Grigorii P. Mikitik and Ernst Helmut Brandt
Subgrain boundary structure in melt-textured $R\mathrm{Ba_2Cu_3O_7}$ ($R=\mathrm{Y, Nd}$): Limitation of critical currents versus flux pinning *(10 pages)* 184515
F. Sandiumenge, N. Vilalta, J. Rabier, and X. Obradors
Temperature-flow renormalization group and the competition between superconductivity and ferromagnetism *(13 pages)* 184516
Carsten Honerkamp and Manfred Salmhofer
Quantum statistics and entanglement of two electromagnetic field modes coupled via a mesoscopic SQUID ring *(13 pages)* 184517
M. J. Everitt, T. D. Clark, P. Stiffell, H. Prance, R. J. Prance, A. Vourdas, and J. F. Ralph
Effect of tilted columnar defects on vortex pinning in $\mathrm{YBa_2Cu_3O_x}$ films *(5 pages)* 184518
D. H. Kim, C. W. Lee, T. W. Lee, H. R. Lim, and I. S. Kim
Effects of acoustic plasmons in photoemission from coupled layered systems *(7 pages)* 184519
J. D. Lee and A. Fujimori
Re-entrant behavior of low-field flux creep in *c*-axis-oriented $\mathrm{HgBa_2CaCu_2O_{6+\delta}}$ thin films *(8 pages)* 184520
Johan J. Åkerman, S. H. Yun, U. O. Karlsson, and K. V. Rao
Quasiparticle contribution to heat carriers relaxation time in $\mathrm{DyBa_2Cu_3O_{7-x}}$ from heat diffusivity measurements *(5 pages)* 184521
S. Dorbolo and M. Ausloos
Antiferromagnetism in Zn-doped $\mathrm{La_2CuO_4}$ as observed by muon spin resonance spectroscopy *(6 pages)* 184522
M. Ekström, O. Hartmann, E. Karlsson, E. Lidström, P. Granberg, and M. Nygren
Vortex pinning by natural linear defects in thin films of $\mathrm{YBa_2Cu_3O_{7-\delta}}$ *(20 pages)* 184523
F. C. Klaassen, G. Doornbos, J. M. Huijbregtse, R. C. F. van der Geest, B. Dam, and R. Griessen

ERRATA

Erratum: Model quantum magnet: The effect of hyperfine interactions on the phase diagram and dynamic susceptibility [Phys. Rev. B **64**, 024427 (2001)] *(1 page)* . . . . . 189901(E)
Varsha Banerjee and Sushanta Dattagupta

Cumulative Author Index iii