Current Rapid Communications

Rapid Communications in Physical Review are short reports of important new work which are of sufficient interest to be given priority handling in the publication process. The following papers have been accepted for publication as Rapid Communications and appear as indicated in the designated Physical Review issues.

Physical Review A, Vol. 53, June 1996, Issue 6

Additional motional magnetic field considerations for electric dipole moment experiments ..... S. K. Lamoreaux R3705
Compton-scattering contribution to the double ionization of He in the A^2 approximation ..... M. A. Kornberg and J. E. Miraglia R3709
Singlet s-wave scattering lengths of ^{6}Li and ^{7}Li ..... E. R. I. Abraham, W. I. McAlexander, J. M. Gerton, R. G. Hulet, R. Côté, and A. Dalgarno R3713
Direct observation of the double Auger decay of a K hole ..... M. M. Hindi, Lin Zhu, Recep Avci, P. M. Miočinović, R. L. Kozub, and G. J. Lapeyre R3716
Compton double-to-single ionization ratio of helium at 57 keV ..... R. Wehlitz, R. Hentges, G. Prümper, A. Farhat, T. Buslaps, N. Berrah, J. C. Levin, I. A. Sellin, and U. Becker R3720
Static-electric-field effects on high harmonic generation ..... Min-Qi Bao and Anthony F. Starace R3723
Atom trapping in nondissipative optical lattices ..... B. P. Anderson, T. L. Gustavson, and M. A. Kasevich R3727
Polarization dynamics in a vertical cavity laser with an axial magnetic field ..... C. Serrat, N. B. Abraham, M. San Miguel, R. Vilaseca, and J. Martín-Regalado R3731
Laser cooling of cesium atoms in gray optical molasses down to 1.1 μkelvin ..... D. Boiron, A. Michaud, P. Lemonde, Y. Castin, C. Salomon, S. Weyers, K. Szymaniec, L. Cognet, and A. Clairon R3734

Physical Review B, Vol. 53, 1 June 1996, Issue 22

Fast *in situ* x-ray-diffraction studies of chemical reactions: A synchrotron view of the hydration of tricalcium aluminate ..... A. C. Jupe, X. Turrillas, P. Barnes, S. L. Colston, C. Hall, D. Häusermann, and M. Hanfland R14697
Lattice dynamics of RbC_{60} in its rotator, polymer, and dimer phase: A neutron-scattering investigation ..... B. Renker, H. Schober, F. Gompf, R. Heid, and E. Ressouche R14701
Calculation of the turnover in the vibrational frequencies of solid hydrogen at high pressures ..... Marcel I. M. Scheerboom and Jan A. Schouten R14705
Ferromagnetism-induced reentrant structural transition and phase diagram of the lightly doped insulator $La_{1-x}Sr_xMnO_3$ ($x \leq 0.17$) ..... H. Kawano, R. Kajimoto, M. Kubota, and H. Yoshizawa R14709
Temperature dependence of the spin-Peierls energy gap and anomalous line shapes in $CuGeO_3$ ..... Michael C. Martin, G. Shirane, Y. Fujii, M. Nishi, O. Fujita, J. Akimitsu, M. Hase, and K. Uchinokura R14713
Analytical results for a hole in an antiferromagnet ..... Y. M. Li, N. d'Ambrumenil, L. Yu, and Z. B. Su R14717
Neutron-scattering and susceptibility study of spin chains and spin ladders in $(Sr_{0.8}Ca_{0.2})_{14}Cu_{24}O_{41}$ ..... R. S. Eccleston, M. Azuma, and M. Takano R14721
Muon-spin-relaxation studies of magnetic order in heavily doped $La_{2-x}Sr_xNiO_{4+\delta}$ ..... K. H. Chow, P. A. Pattenden, S. J. Blundell, W. Hayes, F. L. Pratt, Th. Jestädt, M. A. Green, J. E. Millburn, M. J. Rosseinsky, B. Hitti, S. R. Dunsiger, R. F. Kiefl, C. Chen, and A. J. S. Chowdhury R14725
Crossover from O(3) to O(4) behavior in weakly frustrated antiferromagnets ..... Andrey V. Chubukov and Oleg A. Starykh R14729
Raman-scattering evidence for free spinons in the one-dimensional spin-$\frac{1}{2}$ chains of Sr_2CuO_3 and $SrCuO_2$ ..... O. V. Misochko, S. Tajima, C. Urano, H. Eisaki, and S. Uchida R14733
Direct observation of particle-hole mixing in the superconducting state by angle-resolved photoemission ..... J. C. Campuzano, H. Ding, M. R. Norman, M. Randeria, A. F. Bellman, T. Yokoya, T. Takahashi, H. Katayama-Yoshida, T. Mochiku, and K. Kadowaki R14737
Direct observation of optical magnons in $YBa_2Cu_3O_{6.2}$ ..... D. Reznik, P. Bourges, H. F. Fong, L. P. Regnault, J. Bossy, C. Vettier, D. L. Milius, I. A. Aksay, and B. Keimer R14741
High-precision penetration-depth measurement of $YBa_2Cu_3O_{7-\delta}$ as a function of oxygen content ..... A. Fuchs, W. Prusseit, P. Berberich, and H. Kinder R14745
Josephson plasma resonance in a single-layered cuprate $Bi_2(Sr,La)_2CuO_y$ ..... S. Sakamoto, A. Maeda, T. Hanaguri, Y. Kotaka, J. Shimoyama, K. Kishio, Y. Matsushita, M. Hasegawa, H. Takei, H. Ikeda, and R. Yoshizaki R14749
Doping dependence of the O 1s core-level photoemission in Bi-Sr-Ca-Cu-O superconductors ..... M. Qvarford, S. Söderholm, G. Chiaia, R. Nyholm, J. N. Andersen, I. Lindau, U. O. Karlsson, L. Leonyuk, A. Nilsson, and N. Mårtensson R14753

(Continued)

Current Rapid Communications-*Continued*

Analysis of the lock-in transition in $Bi_2Sr_2CaCu_2O_{8+\delta}$ single crystals through microwave dissipation ..... H. Enriquez, N. Bontemps, P. Fournier, A. Kapitulnik, A. Maignan, and A. Ruyter R14757

Nature of the electronic states in the layered perovskite noncuprate superconductor Sr_2RuO_4 ..... M. Schmidt, T. R. Cummins, M. Bürk, D. H. Lu, N. Nücker, S. Schuppler, and F. Lichtenberg R14761

Physical Review C, Vol. 53, June 1996, Issue 6

Isotopic indentification of the parity-violating neutron *p*-wave resonance at energy $e_0 = 3.2$ eV in Xe ..... V. R. Skoy, E. I. Sharapov, N. A. Gundorin, Yu. P. Popov, Yu. V. Prokofichev, N. R. Roberson, and G. E. Mitchell R2573

Observation of a large parity nonconserving analyzing power in Xe ..... J. J. Szymanski, W. M. Snow, J. D. Bowman, B. Cain, B. E. Crawford, P. P. J. Delheij, R. D. Hartman, T. Haseyama, C. D. Keith, J. Knudson, A. Komives, M. Leuschner, L. Y. Lowie, A. Massaike, Y. Matsuda, G. E. Mitchell, S. I. Penttilä, H. Postma, D. Rich, N. R. Roberson, S. J. Seestrom, E. I. Sharapov, S. L. Stephenson, Y. F. Yen, and V. W. Yuan R2576

Multiple dipole bands at prolate shapes in ^{136}Nd and their description through the projected shell model ..... C. M. Petrache, Y. Sun, D. Bazzacco, S. Lunardi, C. Rossi Alvarez, R. Venturelli, D. De Acuña, G. Maron, M. N. Rao, Z. Podolyák, and J. R. B. Oliveira R2581

Enhanced $E0$ and $E2$ transition rates in the midshell Xe isotopes ..... P. F. Mantica and W. B. Walters R2586

Evidence of initial state interactions in multinucleon pion absorption ..... D. Androić, G. Backenstoss, D. Bosnar, H. Breuer, H. Döbbeling, T. Dooling, M. Furić, P. A. M. Gram, N. K. Gregory, A. Hoffart, C. H. Q. Ingram, A. Klein, K. Koch, J. Köhler, B. Kotlínski, M. Kroedel, G. Kyle, A. Lehmann, A. O. Mateos, K. Michaelian, T. Petković, R. P. Redwine, D. Rowntree, U. Sennhauser, N. Šimičević, R. Trezeciak, H. Ullrich, M. Wang, M. H. Wang, H. J. Weyer, M. Wildi, and K. E. Wilson R2591

Origin of slow, heavy residues observed in dissipative ^{197}Au + ^{86}Kr collisions at $E/A = 35$ MeV ..... W. Skulski, B. Djerroud, D. K. Agnihotri, S. P. Baldwin, J. Tõke, X. Zhao, W. U. Schröder, L. G. Sobotka, R. J. Charity, J. Dempsey, D. G. Sarantites, B. Lott, W. Loveland, and K. Aleklett R2594

Sub-Coulomb dissociation of ^{8}B ..... Johannes von Schwarzenberg, J. J. Kolata, D. Peterson, P. Santi, M. Belbot, and J. D. Hinnefeld R2598

Effective g_A in the pf shell ..... G. Martínez-Pinedo, A. Poves, E. Caurier, and A. P. Zuker R2602

Excess electron pairs from heavy-ion collisions at CERN and a more complete picture of thermal production ..... Kevin L. Haglin R2606

Theoretical predictions for pionium searches ..... M. Sander, C. Kuhrts, and H. V. von Geramb R2610

Physical Review E, Vol. 53, June 1996, Issue 6

Suppressing chaos in lasers by negative feedback ..... R. Meucci, M. Ciofini, and R. Abbate R5537

Absence of self-averaging in global optimization problems ..... Alex Hansen and János Kertész R5541

Proof of Lyapunov exponent pairing for systems at constant kinetic energy ..... C. P. Dettmann and G. P. Morriss R5545

Instabilities on crystal surfaces: The two-component body-centered solid-on-solid model ..... Enrico Carlon, Henk van Beijeren, and Giorgio Mazzeo R5549

Scaling properties of Lyapunov spectra for the band random matrix model ..... T. Kottos, A. Politi, F. M. Izrailev, and S. Ruffo R5553

Hard turbulence in rotating Rayleigh-Bénard convection ..... K. Julien, S. Legg, J. McWilliams, and J. Werne R5557

Early stages of ramified growth in quasi-two-dimensional electrochemical deposition ..... John R. de Bruyn R5561

Extended self-similarity in numerical simulations of three-dimensional anisotropic turbulence ..... R. Benzi, S. M. Vittoria, and R. Tripiccione R5565

Intermittency interpretation of persistent small scale anisotropy in turbulence ..... Alan R. Kerstein R5569

Dynamics of surface patterning in salt-crystal dissolution ..... Yuanming Liu, Li Ning, and Robert E. Ecke R5572

Normal and anomalous scaling in a problem of a passively advected magnetic field ..... Vadim Borue and Victor Yakhot R5576

Field-induced thickness change of ferroelectric liquid crystal films ..... Antal Jákli and Alfred Saupe R5580

Depinning transition of a directed polymer by a periodic potential: A *d*-dimensional solution ..... S. Galluccio and R. Graber R5584

Interface dynamics in a block copolymer melt and the effect of noise ..... Shigeyuki Komura, Jun-ichi Fukuda, and Glenn C. Paquette R5588

Instability of a contact surface driven by a nonuniform shock wave ..... R. Ishizaki, K. Nishihara, H. Sakagami, and Y. Ueshima R5592