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 B, Vol. 57, 1 May 1998, Issue 18

Atomic defects in $D0_3$-Ni_3Sb: An *ab initio* study ..... G. Bester, B. Meyer, and M. Fähnle R11019
Description of the $ZnCl_4$ ordering process in K_2ZnCl_4 ..... F. X. Leduc, A. Hédoux, and J. M. Kiat R11023
Quantum transport velocity in strongly scattering media ..... Rudi Malfliet R11027
Spectral frequency distribution for liquid deuterium determined by neutron scattering ..... M. Mukherjee, F. J. Bermejo, S. M. Bennington, and B. Fåk R11031
Spin-Peierls transition in α'-NaV_2O_5 determined by infrared reflectivity ..... D. Smirnov, P. Millet, J. Leotin, D. Poilblanc, J. Riera, D. Augier, and P. Hansen R11035
Weak ferromagnetism, metal-to-nonmetal transition, and negative differential resistivity in single-crystal Sr_2IrO_4 ..... G. Cao, J. Bolivar, S. McCall, J. E. Crow, and R. P. Guertin R11039
Midgap states of $La_{1-x}Ca_xMnO_3$: Doping-dependent optical-conductivity studies ..... J. H. Jung, K. H. Kim, T. W. Noh, E. J. Choi, and Jaejun Yu R11043
Reinvestigation of long-range magnetic ordering in icosahedral Tb-Mg-Zn ..... Z. Islam, I. R. Fisher, J. Zarestky, P. C. Canfield, C. Stassis, and A. I. Goldman R11047
Field-induced transverse spin ordering in $FeBr_2$ ..... O. Petracic, Ch. Binek, W. Kleemann, U. Neuhausen, and H. Lueken R11051
Ru NMR and NQR probes of the metamagnetic transition in $CeRu_2Si_2$ ..... K. Ishida, Y. Kawasaki, Y. Kitaoka, K. Asayama, H. Nakamura, and J. Flouquet R11054
Coexistence of glassiness and canted antiferromagnetism in triangular quantum Heisenberg antiferromagnets with weak Dzyaloshinskii-Moriya interaction ..... M. A. Gîrţu, C. M. Wynn, W. Fujita, K. Awaga, and A. J. Epstein R11058
Crystal structure and magnetic properties of $[Mn_{12}O_{12}(O_2CPh)_{16}(H_2O)_4] \cdot 2(PhCO_2H)$: Evidence of domain formation with different blocking temperatures ..... Keiji Takeda, Kunio Awaga, and Tamotsu Inabe R11062
Magnetic nature of (100) surfaces of bcc RuV, RhV, and PdV binary alloys ..... Ilja Turek, Stefan Blügel, and Josef Kudrnovský R11065
Manifestation of history-dependent critical currents via dc and ac magnetization measurements in single crystals of $CeRu_2$ and $2H$-$NbSe_2$ ..... G. Ravikumar, V. C. Sahni, P. K. Mishra, T. V. Chandrasekhar Rao, S. S. Banerjee, A. K. Grover, S. Ramakrishnan, S. Bhattacharya, M. J. Higgins, E. Yamamoto, Y. Haga, M. Hedo, Y. Inada, and Y. Onuki R11069
Observation of Andreev reflection in all-superconducting single-electron transistors ..... R. J. Fitzgerald, S. L. Pohlen, and M. Tinkham R11073
Evidence for magnetic pseudoscaling in overdoped $La_{2-x}Sr_xCuO_4$ .... J. G. Naeini, X. K. Chen, K. C. Hewitt, J. C. Irwin, T. P. Devereaux, M. Okuya, T. Kimura, and K. Kishio R11077
Zn-substitution effects on the optical conductivity in $YBa_2Cu_3O_{7-\delta}$ crystals: Strong pair breaking and reduction of in-plane anisotropy ..... N. L. Wang, S. Tajima, A. I. Rykov, and K. Tomimoto R11081
Temperature variation of the pseudogap in underdoped cuprates ..... Andrey V. Chubukov and Jörg Schmalian R11085
Collective modes and the superconducting-state spectral function of $Bi_2Sr_2CaCu_2O_8$ ..... M. R. Norman and H. Ding R11089
Phenomenology of the low-energy spectral function in high-T_c superconductors ..... M. R. Norman, M. Randeria, H. Ding, and J. C. Campuzano R11093
Electronic Raman scattering from $Bi_2Sr_2CaCu_2O_{8+\delta}$: Doping dependence of the pseudogap and anomalous 600 cm^{-1} peak ..... J. W. Quilty, H. J. Trodahl, and D. M. Pooke R11097
Evidence for a second one-dimensional set of states shedding light on the normal phase of high-T_c superconductors ..... N. L. Saini, J. Avila, M. C. Asensio, S. Tajima, G. D. Gu, N. Koshizuka, A. Lanzara, and A. Bianconi R11101