

## 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. 56, December 1997, Issue 6

- Bell's theorem for a class of down-conversion experiments ..... Sandu Popescu, Lucien Hardy, and Marek Żukowski R4353
- Polarizabilities and parity nonconservation in the Cs atom and limits on the deviation from the standard electroweak model ..... V.A. Dzuba, V.V. Flambaum, and O.P. Sushkov R4357
- Determination of the dipole polarizabilities of  $H_2^+(0,0)$  and  $D_2^+(0,0)$  by microwave spectroscopy of high- $L$  Rydberg states of  $H_2$  and  $D_2$  ..... P.L. Jacobson, D.S. Fisher, C.W. Fehrenbach, W.G. Sturru, and S.R. Lundeen R4361
- Nanometer definition of atomic beams with masks of light ..... Roland Abfalterer, Claudia Keller, Stefan Bernet, Markus K. Oberthaler, Jörg Schmiedmayer, and Anton Zeilinger R4365
- Calculating differential cross sections for electron-impact ionization without explicit use of the asymptotic form ..... C.W. McCurdy and T.N. Rescigno R4369
- Formation of  $HeH^+$  from positron interactions with  $H_2$  and He mixtures ..... Jun Xu, L.D. Hulet, J. Moxom, W. Wu, S. Datz, and D.M. Schrader R4373
- Time-dependent control of ultracold atoms in magnetic traps ..... N.V. Vitanov and K.-A. Suominen R4377
- Spectral signatures of resonantly driven dressed atoms ..... C.C. Yu, J.R. Bochinski, T.M.V. Kordich, T.W. Mossberg, and Z. Ficek R4381
- Ion-recoil energy measurement in photoionization of laser-cooled rubidium ..... Steffen Wolf and Hanspeter Helm R4385
- Prediction for laser-cooled Rb clocks ..... S.J.J.M.F. Kokkelmans, B.J. Verhaar, K. Gibble, and D.J. Heinzen R4389
- Diffraction electron-atom scattering in an intense low-frequency laser field ..... A. Jaroń and J.Z. Kamiński R4393
- Controlling quantum coherence by circularly polarized fields ..... Jiushu Shao and Peter Hänggi R4397
- Drift instability and locking behavior of optical patterns ..... J.P. Seipenbusch, T. Ackemann, B. Schäpers, B. Berge, and W. Lange R4401

### Physical Review C, Vol. 56, December 1997, Issue 6

- Influence of the ground state spin of target nuclei on the anomalous behavior of fission fragment anisotropies ..... J.P. Lestone, A.A. Sonzogni, M.P. Kelly, and R. Vandenbosch R2907
- Nonobservation of  $^{12}C$  cluster decay of  $^{114}Ba$  ..... A. Guglielmetti, R. Bonetti, G. Poli, R. Collatz, Z. Hu, R. Kirchner, E. Roeckl, N. Gunn, P.B. Price, B.A. Weaver, A. Westphal, and J. Szerypo R2912
- Direct determination of the doublet and quartet  $M1$  cross sections in  $p$ - $d$  radiative capture at near-thermal energies ..... B.J. Rice, E.A. Wulf, R.S. Canon, J.H. Kelley, R.M. Prior, M. Spraker, D.R. Tilley, and H.R. Weller R2917
- Contribution of  $\pi^0$  and  $\eta$  Dalitz decays to the dilepton invariant-mass spectrum in 1 A GeV heavy-ion collisions .... R. Holzmann, M. Appenheimer, R. Averbeck, Y. Charbonnier, H. Delagrange, J. Diaz, A. Döppenschmidt, V. Hejny, S. Hlaváč, A. Kugler, F. Lefèvre, H. Löhner, A. Marín, G. Martínez, T. Matulewicz, V. Metag, R. Novotny, R.W. Ostendorf, R. Pleskác, Y. Schutz, R.H. Siemssen, R.S. Simon, H. Ströher, P. Tlustý, P.H. Vogt, V. Wagner, J. Weiss, H.W. Wilschut, F. Wissmann, A.R. Wolf, and M. Wolf R2920
- Evidence for a highly deformed oblate  $0^+$  state in  $^{74}Kr$  ..... C. Chandler, P.H. Regan, C.J. Pearson, B. Blank, A.M. Bruce, W.N. Catford, N. Curtis, S. Czajkowski, W. Gelletly, R. Grzywacz, Z. Janas, M. Lewitowicz, C. Marchand, N.A. Orr, R.D. Page, A. Petrovici, A.T. Reed, M.G. Saint-Laurent, S.M. Vincent, R. Wadsworth, D.D. Warner, and J.S. Winfield R2924
- Elastic and quasielastic scattering of  $^8He$  from  $^{12}C$  ..... J.A. Tostevin, J.S. Al-Khalili, M. Zahar, M. Belbot, J.J. Kolata, K. Lamkin, D.J. Morrissey, B.M. Sherrill, M. Lewitowicz, and A.H. Wuosmaa R2929
- General relativistic mean field theory for rotating nuclei ..... Hideki Madokoro and Masayuki Matsuzaki R2934
- Valence correlation scheme for single nucleon separation energies and the shell model ..... Nissan Zeldes R2938