PHYSICAL REVIEW A **THIRD SERIES, VOLUME 55, NUMBER 4** **APRIL 1997**

Isospectral deformation of quantum potentials and the Liouville equation 2580
V. M. Eleonsky and V. G. Korolev
Two-boson Hamiltonian for Shor's algorithm 2594
Mario Rasetti, Elena Tagliati, and Riccardo Zecchina
Fundamental quantum limit in precision phase measurement 2598
Z. Y. Ou
Time-dependent-harmonic plus inverse-harmonic potential in quantum mechanics 2610
R. S. Kaushal and D. Parashar
Quantum time-dependent perturbation theory for the construction of operator invariants 2615
H. Ralph Lewis and Walter E. Lawrence
Orthogonality criteria for singular states and the nonexistence of stationary states with even parity for the one-dimensional hydrogen atom 2617
Dai Xianxi, Jixin Dai, and Jiqiong Dai
Semiclassical analysis of quasiexact solvability 2625
Carl M. Bender, Gerald V. Dunne, and Moshe Moshe

Atomic and molecular structure and dynamics

Time-dependent Kohn-Sham formalism 2630
Andreas Görling
Interpair and intrapair electron correlation of low excited states ($^2A_1$) in $NaCl_2$ 2640
Guan-Zhi Ju and Ning Ju
Theory of hyperfine interactions in potassium and Sc^{2+} ion: Trends in systems isoelectronic with potassium 2644
Alfred Owusu, Xing Yuan, S. N. Panigrahy, R. W. Dougherty, T. P. Das, and J. Andriessen
Analytic basis set for high-Z atomic QED calculations: Heavy He-like ions 2651
D. J. Hylton and N. J. Snyderman
Positronium hydrides and the Ps_2 molecule: Bound-state properties, positron annihilation rates, and hyperfine structure 2662
Alexei M. Frolov and Vedene H. Smith Jr.
Pair-Rydberg description of doubly excited states: Diabatic evolution of correlation patterns 2674
Thomas A. Heim, G. Brad Armen, and A. R. P. Rau
Constrained Hamiltonian approach to the phase space of the coupled cluster method 2686
Jouko Arponen
Hydrogen molecular ion in a strong parallel magnetic field 2701
Yu. P. Kravchenko and M. A. Liberman
Precise Stark-shift measurements using an electro-optically modulated laser beam 2711
W. A. van Wijngaarden and J. Li
Theory of natural circular dichroism in x-ray Raman scattering from molecules 2716
Yi Luo, Olav Vahtras, Faris Gel'mukhanov, and Hans Ågren
Lifetimes of the $3p^5 4s\,^3P_1$, $^1P_1$ and $3p^5 3d\,^3P_1$ levels in K II 2723
M. Henderson, L. J. Curtis, R. Matulioniene, D. G. Ellis, and Yuelin Li
Hyperfine structure of $2\,^3P$ levels of heliumlike ions 2728
W. R. Johnson, K. T. Cheng, and D. R. Plante
Cl $2p$–photoelectron spectrum of HCl studied by fully relativistic, self-consistent-field, and configuration-interaction calculations 2743
K. Ellingsen, T. Saue, H. Aksela, and O. Gropen
High-resolution C $1s$ photoelectron spectra of methane, ethene, propene, and 2-methylpropene 2748
L. J. Sæthre, O. Sværen, S. Svensson, S. Osborne, T. D. Thomas, J. Jauhiainen, and S. Aksela

(Continued)