Erratum: Transition energy and lifetime for the ground-state hyperfine splitting of high-*Z* lithiumlike ions [Phys. Rev. A 57, 149 (1998)]

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A small numerical error was made in the calculation of the nuclear charge distribution corrections to the 2s hyperfine splitting that affects the last digit of δ and δ_B. Removing this error almost does not affect the hyperfine splitting values ΔE and λ given in Table IV (the effect is much smaller than the error bars indicated in the table), but changes the η values and the high precision predictions slightly for the hyperfine splitting of $^{209}Bi^{80+}$ and $^{165}Ho^{64+}$ given in Table V. At the experimentally interesting cases of Ho, Re, Pb, and Bi, the correct values of δ and δ_B are 0.0480 and 0.050, 0.0749 and 0.079, 0.1120 and 0.119, and 0.1187 and 0.126, respectively. The corresponding values of η are 1.1274(3), 1.1850(4), 1.2417(5), and 1.2542(5). In Table V, the hyperfine splitting values should be replaced by 0.7969(2) eV for $^{209}Bi^{80+}$, and 0.3051(1) eV for $^{165}Ho^{64+}$. The corresponding transition probabilities are 12.03(2) s^{-1} and 0.674(1) s^{-1}. A version of the paper with this correction made is available from the e-print archive, physics/9707006.

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Erratum: Quantum oscillator with fluctuating time-dependent frequency [Phys. Rev. A 57, 2347 (1998)]

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In Sec. IV of Ref. [1], there are two errors. First, Eq. (23b) should read

$$\vartheta \equiv \mathrm{sgn}(\xi)\sqrt{\frac{1-\cos(2\Omega_0\Delta\tau)}{2}};\quad E_{\not{}}(0)=E^0_{\not{}}. \tag{1}$$

Second, there is an incorrect statement in Appendix B, claiming that $\dot{y}(0)\propto(d\langle q^2\rangle/dt)_{t=0}=0$ in *any* case. Instead, it is possible to see that

$$\dot{y}(0)\propto\langle i'|(pq+qp)|i\rangle, \tag{2}$$

which vanishes only for $i=i'$. Due to this error Eq. (24b) is *incomplete*. The correct expression of the Heisenberg Hamiltonian in fact reads

1050-2947/98/58(2)/1610(2)/$15.00

$$H_{ad}(t)=[\cosh(\omega_M t)-\vartheta\sinh(\omega_M t)]\,\frac{p^2}{2m}+[\cosh(\omega_M t)+\vartheta\sinh(\omega_M t)]\,\frac{m\Omega_0^2 q^2}{2}$$

$$-\Omega_0 \mathrm{sgn}[\xi\sin(2\Omega_0\Delta\tau)]\sqrt{(1-\vartheta^2)}\sinh(\omega_M t)\frac{pq+qp}{2}, \tag{3}$$

which replaces Eq. (24b) of Ref. [1]. Accordingly, Eq. (24c) of Ref. [1] must be replaced in turn by

$$E_{\ell}(t)=E_{\ell}(0), \tag{4}$$

showing that the spectrum of $H_{ad}(t)$ [Eq. (3)] is *invariant*, which is indeed correct in view of the unitarity of the evolution operator.

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[1] L. Ferrari, Phys. Rev. A **57**, 2347 (1998).