# Errata

## Erratum: Inertial and noninertial particle detectors and vacuum fluctuations [Phys. Rev. D 46, 5267 (1992)]

B. F. Svaiter and N. F. Svaiter

PACS number(s): 03.65.Bz, 04.20.Cv, 11.10.Qr, 99.10.+g

Equation (4.10) should read

$$F_{II}(E,\Delta\tau)=\frac{1}{2\pi^2}(-\gamma+\mathrm{Ci}|E|\Delta\tau-\ln|E|\varepsilon-1)\ . \tag{1}$$

It follows that instead of defining the renormalized response function given by Eq. (4.12), the problem of the ill-defined quantity can be overcome by defining the rate $R(E,\Delta\tau)=(d/d\Delta\tau)F(E,\Delta\tau)$. Then Eq. (4.13) should read

$$F(E,\Delta\tau)=\frac{1}{2\pi^2}\left[|E|\Delta\tau\left[\pi\Theta(-E)+\mathrm{Si}|E|\Delta\tau-\frac{\pi}{2}\right]+\ln(\Delta\tau/\varepsilon)+\cos E\Delta\tau-1+\int_0^{\Delta\tau}d\xi\frac{\cos E\xi-1}{\xi}\right]\ . \tag{2}$$

Equation (4.14) should read

$$R(E,\Delta\tau)=\frac{d}{d(\Delta\tau)}F(E,\Delta\tau)=\frac{1}{2\pi}\left[-E\Theta(-E)+\frac{\cos E\Delta\tau}{\pi\Delta\tau}+\frac{|E|}{\pi}\left[\mathrm{Si}|E|\Delta\tau-\frac{\pi}{2}\right]\right]\ . \tag{3}$$

Following these arguments, instead of the original Fig. 6, we must draw a new Fig. 6, shown below. The same observations must be applied to Eqs. (5.9) and (5.11).

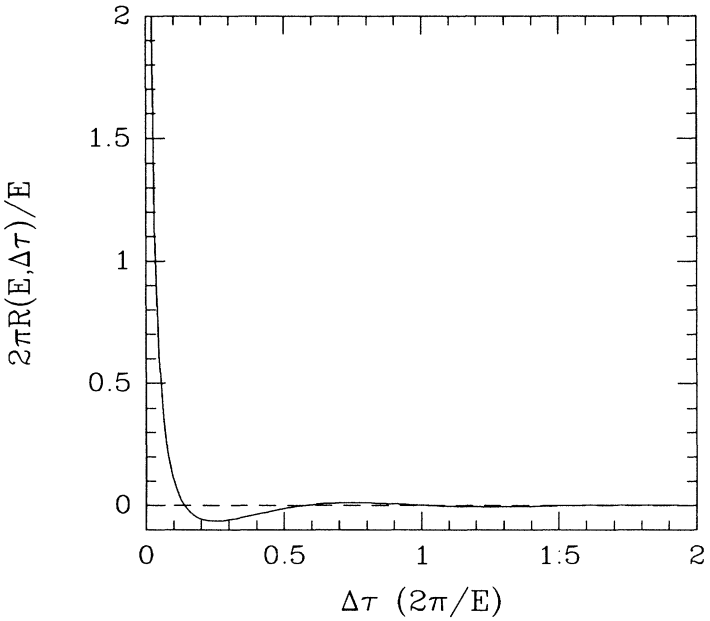


FIG. 6. The function $R(E,\Delta\tau)\times\Delta\tau$.

 