Errata

Erratum: Charged black holes in string theory [Phys. Rev. D 43, 3140 (1991)]

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The powers of e^{ϕ_0} (where ϕ_0 is the asymptotic value of the dilaton) multiplying Q in this paper are incorrect. The correct powers can be found as follows. First, all equations are valid when $\phi_0 = 0$. Second, it follows from the equations of motion (2)-(4) that if $(g_{\mu\nu}, \phi, F_{\mu\nu})$ is a solution, so is $(g_{\mu\nu}, \widetilde{\phi}, \widetilde{F}_{\mu\nu})$, where $g_{\mu\nu}$ is the Einstein metric, $\widetilde{\phi} = \phi + \phi_0$, and $\tilde{F}_{\mu\nu} = e^{\phi_0} F_{\mu\nu}$. Thus the solution given in Eqs. (6)–(8) should be

$$ds^{2} = -\left[1 - \frac{2M}{r}\right]dt^{2} + \left[1 - \frac{2M}{r}\right]^{-1}dr^{2} + r\left[r - \frac{Q^{2}e^{-2\phi_{0}}}{M}\right]d\Omega,$$

$$e^{-2\phi} = e^{-2\phi_{0}}\left[1 - \frac{Q^{2}e^{-2\phi_{0}}}{Mr}\right],$$

 $F = Q \sin\theta d\theta \wedge d\varphi$,

and the extremal black hole has $Q^2 = 2M^2e^{2\phi_0}$.

We thank J. Horne for bringing this error to our attention.