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Erratum: Some general aspects of thin-shell wormholes with cylindrical symmetry [Phys. Rev. D 81, 084022 (2010)]

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There is an algebraic error in Eq. (4), which should read

$$K^{\pm}_{\hat{\tau}\hat{\tau}} = \mp \frac{2A(a)B(a)\ddot{a} + A'(a) + [A(a)B'(a) + A'(a)B(a)]\dot{a}^2}{2A(a)\sqrt{B(a)}\sqrt{1 + B(a)\dot{a}^2}}. \tag{4}$$

As a consequence, the following corrections apply: Eqs. (9) and (10) should be modified in the form

$$p_\varphi = \frac{1}{8\pi\sqrt{B(a)}\sqrt{1 + B(a)\dot{a}^2}} \left\{ 2B(a)\ddot{a} + B(a)\left[\frac{D'(a)}{D(a)} + \frac{A'(a)}{A(a)} + \frac{B'(a)}{B(a)}\right]\dot{a}^2 + \frac{D'(a)}{D(a)} + \frac{A'(a)}{A(a)} \right\}, \tag{9}$$

$$p_z = \frac{1}{8\pi\sqrt{B(a)}\sqrt{1 + B(a)\dot{a}^2}} \left\{ 2B(a)\ddot{a} + B(a)\left[\frac{C'(a)}{C(a)} + \frac{A'(a)}{A(a)} + \frac{B'(a)}{B(a)}\right]\dot{a}^2 + \frac{C'(a)}{C(a)} + \frac{A'(a)}{A(a)} \right\}. \tag{10}$$

In Eqs. (13) and (14), the quotient $B'(a)/B(a)$ should be replaced by $A'(a)/A(a)$, while in Eqs. (15) and (16), the function $B(a)$ and its derivative $B'(a)$ should be replaced by $A(a)$ and $A'(a)$, respectively. The last part of the final paragraph in Sec. IV should read "It is straightforward to see that

$$p_z = \frac{1}{4\pi a^{m^2+1}|k_1 a^m + k_2 a^{-m}|} \quad \text{and} \quad p_\varphi = \frac{m^2}{4\pi a^{m^2+1}|k_1 a^m + k_2 a^{-m}|}. \tag{27}$$

So we find that $p_z > 0$ and $p_\varphi \geq 0$, for all the values of the parameters. On the other hand, $\sigma + p_r = \sigma$ because the radial pressure is nonsingular on the shell. Then it is possible to satisfy the energy conditions when the energy density is positive. If the parameters are such that $\sigma > 0$, then an observer at rest at the throat, or an observer moving from one side of the throat to the other side would find only positive energy matter." (Footnote 3 is removed). The last sentence in Sec. V should be replaced by "In this case, we have shown that the weak energy condition is also satisfied."

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