COSMOLOGICAL DENSITY FLUCTUATIONS PRODUCED BY VACUUM STRINGS. Alexander Vilenkin [Phys. Rev. Lett. 46, 1169 (1981)].

On the fifth line after Eq. (1), "$\omega \sim 10^{-2}$" should be replaced by "$\alpha \sim 10^{-2}$." In the line following Eq. (3), replace "$t \gg t_* \sim 10^{34}$ s " by "$t \gg t_* \sim 10^{-34}$ s."

The text and equations from Eq. (11) to Eq. (13) are very confusing, because the string mass density μ and the galactic mass $\mathfrak{M}$ are both printed as μ. The text should have read

$$\delta\mathfrak{M}_M \sim [\nu(M)M^3L^3]^{1/2} \propto M^{1/4}. \quad (11)$$

This implies that the dominant contribution to $\delta\mathfrak{M}$ is given by the largest loops which the region under consideration can be expected to contain: $\delta\mathfrak{M} \sim M_{\max}$, where $\nu(M_{\max})M_{\max}L^3 \sim 1$. The total mass of matter on scale L is $\mathfrak{M} \sim \rho_{\rm dec}L^3 \sim L^3/Gt_{\rm dec}^2$, and we obtain

$$(\delta\mathfrak{M}/\mathfrak{M})_{\rm dec} \sim M_{\max}/\mathfrak{M} \sim G\mu(t_{\rm dec}/G\mathfrak{M})^{1/3}. \quad (12)$$

Objects of mass $\mathfrak{M}$ bind at $t \sim t_B$ when $\delta\mathfrak{M}/\mathfrak{M} \sim 1$:

$$t_B \sim t_{\rm dec}(\delta\mathfrak{M}/\mathfrak{M})_{\rm dec}^{-3/2}(G\mu)^{-3/2}(G\mathfrak{M}t_{\rm dec})^{1/2} \sim 10^3(G\mu)^{-3/2}(\mathfrak{M}/M_\odot)^{1/2}. \quad (13)$$

For galactic mass scales ($\mathfrak{M} \sim 10^{12}M_\odot$) to bind at ....