ERRATUM

(Received November 7, 2014)

M.D. Pollock

Maximally Symmetric Superstring Vacua

Acta Phys. Pol. B **40**, 2689 (2009)

The following are corrections to errors in the printed paper:

Page	Line	Should read	
2694	21	$\Lambda_{\rm eff}=0\,,\qquad \{18/[337\zeta(3)+1/2]\}^{1/3}A_{\rm r}^{-1}\kappa^{-2}\,,$	(33)
2695	12	$4B\kappa^2\Lambda_{\rm eff}=4\{18/[337\zeta(3)+1/2]\}^{1/3}\tilde{B}B_{\rm r}^{-2} = 0.629\left(\frac{\tilde{B}}{4}\right)\left(\frac{3}{B_{\rm r}}\right)^2\,,$	(38)
2695	15–19	The sign of expression (37) is clearly positive, although note that we have ignored the trace anomaly.	
2695	22	over the de Sitter space solution with non-vanishing $\Lambda_{\rm eff}$.	
2695 2696	23–32 1–15	} The argument does not apply.	
2697	10	$\lambda_0'=228\zeta(3)+\frac{15}{16}\,,$	(51)
2697	11	$a_0'=1,608\zeta(3)+\frac{15}{4}\,,$	(52)
2697	12	$b_0=2,974\zeta(3)+\frac{25}{4}\,,\qquad b_2'=546\zeta(3)+\frac{3}{8}\,,$	(53)
2697	13–14	$c_0=\frac{9}{14}\left[337\zeta(3)+\frac{1}{2}\right]\,,\quad c_2=2,436\zeta(3)+6\,,$ $c_3=753\zeta(3)+\frac{15}{4}\,,\quad c_4=\frac{123}{2}\zeta(3)+\frac{15}{16}$	(54)
2697	16	$k_0=\frac{1}{5}[10,938\zeta(3)+21]\,,\qquad k_2=2,613\zeta(3)+\frac{3}{4}\,,$ $k_3=507\zeta(3)\,.$	(55)
2697	27–28	$\lambda_2'=\frac{C_2}{B_2}-\left(\frac{K_2}{B_2}\right)^2=\left[\frac{203\zeta(3)}{2}+\frac{1}{4}\right]\frac{\kappa^4A_{\rm r}^3}{B+b_2'k^2\kappa^4A_{\rm r}^3a^{-4}/24} -\left(\frac{[2,613\zeta(3)+3/4]k\kappa^4A_{\rm r}^3a^{-2}}{24B+b_2'k^2\kappa^4A_{\rm r}^3a^{-4}}\right)^2\,,$	(58)

Page Line Should read

2698 2–3

$$= \left[\frac{753\zeta(3)+15/4}{110{,}592}\right] \frac{\kappa^4 A_{\rm r}^3}{\left(B+b_2' k^2 \kappa^4 A_{\rm r}^3 a^{-4}/24\right)^3}$$

$$= -\frac{1{,}521\zeta(3)[2{,}613\zeta(3)+3/4]k^2\kappa^8 A_{\rm r}^6 a^{-4}}{8\left(24B+b_2' k^2 \kappa^4 A_{\rm r}^3 a^{-4}\right)^4} \qquad (59)$$

2698 5–6

$$\lambda_4 = \frac{C_4}{16B_2^4} - \left(\frac{3K_3}{8B_2}\right)^2 \frac{1}{B_2^3}$$

$$= \left[\frac{123\zeta(3)+15/8}{10{,}616{,}832}\right] \frac{\kappa^4 A_{\rm r}^3}{\left(B+b_2' k^2 \kappa^4 A_{\rm r}^3 a^{-4}/24\right)^4}$$

$$= -\left(\frac{1{,}521\zeta(3)k\kappa^4 A_{\rm r}^3 a^{-2}}{192B+8b_2' k^2 \kappa^4 A_{\rm r}^3 a^{-4}}\right)^2 \frac{1}{\left(24B+b_2' k^2 \kappa^4 A_{\rm r}^3 a^{-4}\right)^3}\,. \qquad (60)$$

2698 16–19 From Eqs. (48), (49), (50) and (54) we see that the Z_0 are not all negative semi-definite. To order ξ^2, however, we have the important result that the potential (57) is positive semi-definite, being bounded from below with a minimum $\mathcal{V}(\alpha, 0) = 0$ at $\xi = 0$ when $\Lambda \geq 0$.

2698 29 the approximation of setting the $C_n = 0$ and $k = 0$, whereupon Eq. (56) reduces to the

2699 19–25 When the higher-order corrections contained in expression (65) are taken into account, however, the situation becomes more complicated. The coefficients $A_0, -B_0, K_0$ and $-C_0$ of the terms $\tilde{\xi}^2, \tilde{\xi}^4, \tilde{\xi}^6$ and $\tilde{\xi}^8$, respectively, are all negative semi-definite, at least for $k \leq 0$, the dominant term $-C_0\tilde{\xi}^8$ at large $\tilde{\xi}^2$ being negative for all k. For $k \leq 0$ and $\tilde{\xi}' > 0$, the terms $K_2\tilde{\xi}^2\tilde{\xi}'^2$, $K_3\tilde{\xi}'^3$, $-C_2\tilde{\xi}^4\tilde{\xi}'^2$, $-C_3\tilde{\xi}^2\tilde{\xi}'^3$ and $-C_4\tilde{\xi}'^4$ are also all negative semi-definite.

2699 26–29
2700 1–2 } The argument does not apply.

2700 3–5 As a result, $\mathcal{L}_{\rm E}$ is bounded from above, remaining negative semi-definite as $\tilde{\xi} \to \infty$, when $k \leq 0$. The terms

Page Ref. Should read

2700 [16] M.D. Pollock, *Int. J. Mod. Phys.* **D16**, 591 (2007); **D23**, 1492001(E) (2014).

2700 [17] M.D. Pollock, *Int. J. Mod. Phys.* **A7**, 4149 (1992); **A27**, 1292005(E) (2012).

2701 [21] M.D. Pollock, *Int. J. Mod. Phys.* **D4**, 305 (1995); **D21**, 1292002(E) (2012).

2701 [22] M.D. Pollock, *Int. J. Mod. Phys.* **D15**, 845 (2006); **D22**, 1392001(E) (2013).