Erratum: T duality and Wald entropy formula in the Heterotic Superstring effective action at first-order in α'

Zachary Elgood and Tomás Ortín

*Instituto de Física Teórica UAM/CSIC,
C/ Nicolás Cabrera, 13–15, C.U. Cantoblanco, Madrid E-28049, Spain*

E-mail: zachary.elgood@uam.es, tomas.ortin@csic.es

ERRATUM TO: [JHEP10\(2020\)097](#)

ARXIV EPRINT: [2005.11272](#)

While the main formulae and results of our paper *T duality and Wald entropy formula in the Heterotic Superstring effective action at first-order in α'* (Zachary Elgood and Tomás Ortín, *JHEP* **10** (2020) 097 [[arXiv:2005.11272](#)]) remain unaltered, we have detected a number of typos that affect some of the intermediate calculations:

1. The $-$ sign in eq. (4.3a) should be a $+$.
2. A term $+\frac{\alpha'}{4}\partial_a\log k\partial^a\varphi^2$ is missing in the integrand in eqs. (4.4) and (4.24).
3. In the second line of eq. (4.17), there is a factor of 2 missing in front of the $(\log k)^2$ term.
4. The line after eq. (4.19) should read “Half of the last term should be integrated by parts [...]”.
5. Eq. (4.20) contains some errors and should read

$$\hat{\omega}_{abc}^{\text{YM}} = \omega_{abc}^{\text{YM}} + 3e_a{}^\mu e_b{}^\nu e_c{}^\rho \left[\partial_{[\mu} \left(k A_{\nu]} \varphi_A A^A{}_{|\rho]} \right) + A_{[\mu} \partial_{\nu]} \left(k \varphi_A A^A{}_{|\rho]} \right) + \frac{3}{2} k \varphi_A A^A{}_{[\mu} F_{\nu\rho]} \right].$$

6. Eq. (4.21) contains some errors and should read

$$\begin{aligned} \hat{\omega}_{abc}^{\text{L}(0)} = & \omega_{abc}^{\text{L}(0)} + 3e_a{}^\mu e_b{}^\nu e_c{}^\rho \left[\mathcal{D}_{(-)}^{(0)}{}_{[\mu} K^{(-)}{}_{\nu]}{}^e K^{(-)}{}_{\rho]}{}_e + \partial_{[\mu} \left(k A_{\nu]} \varphi^{\hat{e}} A^{\hat{f}}{}_{\hat{e}|\rho]} \right) \right. \\ & \left. + A_{[\mu} \partial_{\nu]} \left(k \varphi^{\hat{e}} A^{\hat{f}}{}_{\hat{e}|\rho]} \right) + \frac{1}{2} k \varphi^{\hat{e}} A^{\hat{f}}{}_{\hat{e}[\mu} F_{\nu\rho]} \right]. \end{aligned}$$

7. A factor of 3 is missing in front of the last term in eq. (4.23b).
8. In the last line of eq. (4.25), the two relative $-$ signs should $+$ es.
9. In the second and third lines of eq. (4.26), the last term in each parenthesis should carry a $+$ sign, instead of a $-$ sign.
10. The last term in each parenthesis the lines 3, 4, 5 and 6 of eq. (4.27) should carry a $+$ sign, instead of a $-$ sign.
11. The signs of the first terms in the lines 6, 7, 9 and 10 of eq. (4.28) should be reversed.

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