

# Erratum: Matching scalar leptoquarks to the SMEFT at one loop

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The following corrections should be applied to the published version of ref. [1]:

- For the coefficients  $[C_{qe}]^{(1)}$ ,  $[C_{lu}]^{(1)}$ ,  $[C_{ld}]^{(1)}$ ,  $[C_{ledq}]^{(1)}$ , eqs. (3.84)–(3.87), and  $[G_{qe}]^{(1)}$ ,  $[G_{lu}]^{(1)}$ ,  $[G_{ld}]^{(1)}$ ,  $[G_{ledq}]^{(1)}$ , eqs. (C.99)–(C.101), all factors  $(1 + L_i)$ ,  $i = 1, 3$ , should be replaced by  $(\frac{3}{2} + L_i)$ .
- For the coefficients  $[C_{\ell q}^{(1)}]^{(1)}$  and  $[C_{\ell q}^{(3)}]^{(1)}$ , eqs. (3.77), (3.80), and  $[G_{\ell q}^{(1)}]^{(1)}$ ,  $[G_{\ell q}^{(3)}]^{(1)}$ , eqs. (C.96)–(C.97), the factors  $\left(2 + \frac{N_c^2 - 1}{2N_c}\right) c_3^{(5)} = \frac{10}{3} c_3^{(5)}$  should be replaced by  $\frac{5}{6} c_3^{(5)}$ .
- For the coefficients  $[C_{\ell q}^{(1)}]^{(1)}$  and  $[C_{\ell q}^{(3)}]^{(1)}$ , eqs. (3.76), (3.79), and  $[G_{\ell q}^{(1)}]^{(1)}$ ,  $[G_{\ell q}^{(3)}]^{(1)}$ , eqs. (C.96)–(C.97), the factor  $-\frac{1}{4}(\frac{1}{2} + a_{ev})g^2$  should read  $+\frac{1}{4}(\frac{1}{2} + a_{ev})g^2$ .
- In For the coefficients  $[C_{\ell q}^{(3)}]^{(1)}$  and  $[G_{\ell q}^{(3)}]^{(1)}$ , eqs. (3.80) and (C.97), the expression  $(\Lambda_\ell^{(31)\dagger})(\Lambda_q^{(31)\dagger}) + (\Lambda_\ell^{(31)})(\Lambda_q^{(31)})$  should read  $(\Lambda_\ell^{(31)\dagger})(\Lambda_q^{(31)\dagger}) + (\Lambda_\ell^{(31)})(\Lambda_q^{(31)\dagger})$  instead.

The correct equations have been substituted in the e-print version of [1].

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## References

- [1] V. Gherardi, D. Marzocca and E. Venturini, *Matching scalar leptoquarks to the SMEFT at one loop*, *JHEP* **07** (2020) 225 [[arXiv:2003.12525](https://arxiv.org/abs/2003.12525)] [[INSPIRE](https://inspirehep.net/literature/1800000)].