Erratum: On the structure of infrared singularities of gauge-theory amplitudes

Thomas Becher\textsuperscript{a} and Matthias Neubert\textsuperscript{b}
\textsuperscript{a}Fermi National Accelerator Laboratory, P.O. Box 500, Batavia, IL 60510, U.S.A.
\textsuperscript{b}Institut für Physik (THEP), Johannes Gutenberg-Universität, D-55099 Mainz, Germany

E-mail: becher@fnal.gov, neubertm@uni-mainz.de

Erratum to: JHEP06(2009)081

The expression for the quantity $H_{R,S}^{(2)}(\epsilon)$ in equation (2.17) of the paper is incomplete. The result for $H_{R,S}^{(2)}(\epsilon)$ must include the additional term

$$\Delta H_{R,S}^{(2)}(\epsilon) = -\frac{i f^{abc}}{128\epsilon} \left[ \gamma^0 C_i - \frac{\gamma^0 C_j}{C_j} \right] \ln \frac{-s_{ij}}{-s_{jk}} \ln \frac{-s_{kj}}{-s_{ij}}.$$  \hspace{1cm} (2.17)

This extra contribution was discussed in appendix D of [1], where it was shown that it only contributes for amplitudes with more than four particles. The form (2.17) of the extra term was given in the recent paper [2].

References

[1] S.M. Aybat, L.J. Dixon and G.F. Sterman, The two-loop soft anomalous dimension matrix and resummation at next-to-next-to leading pole, Phys. Rev. D 74 (2006) 074004 [hep-ph/0607309] [arXiv:hep-ph/0607309] [SPIRE].

[2] T. Becher, G. Bell, C. Lorentzen and S. Marti, Transverse-momentum spectra of electroweak bosons near threshold at NNLO, arXiv:1309.3245 [hep-ph].