

Erratum: Search for events with one displaced vertex from long-lived neutral particles decaying into hadronic jets in the ATLAS muon spectrometer in pp collisions at $\sqrt{s} = 13$ TeV [Phys. Rev. D **112, 092001 (2025)]**

G. Aad *et al.*^{*}
(ATLAS Collaboration)



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After the publication of the manuscript, it was found that the normalization of certain signals in the final limit plots were incorrect. This was found to originate from the incorrect cross section scale factors used in the limit calculation for several signal masses. Specifically, this impacted five signal masses in the lepton-triggered channel, including three axionlike-particle (ALP) masses (0.1, 1, and 10 GeV) and two dark-photon interpretations with dark Higgs and scalar masses [m_H , m_{Z_d}] of [125 GeV, 5 GeV] and [400 GeV, 200 GeV]. For the ALP masses, the 0.1, 1, and 10 GeV masses were scaled by 3.1222, 3.1158, and 2.8713, respectively, when they should have been scaled by a uniform 2.003. This impacts Figs. 15 and 16 of the paper, shown here after applying the modification. For the two dark photon masses, their cross sections both were

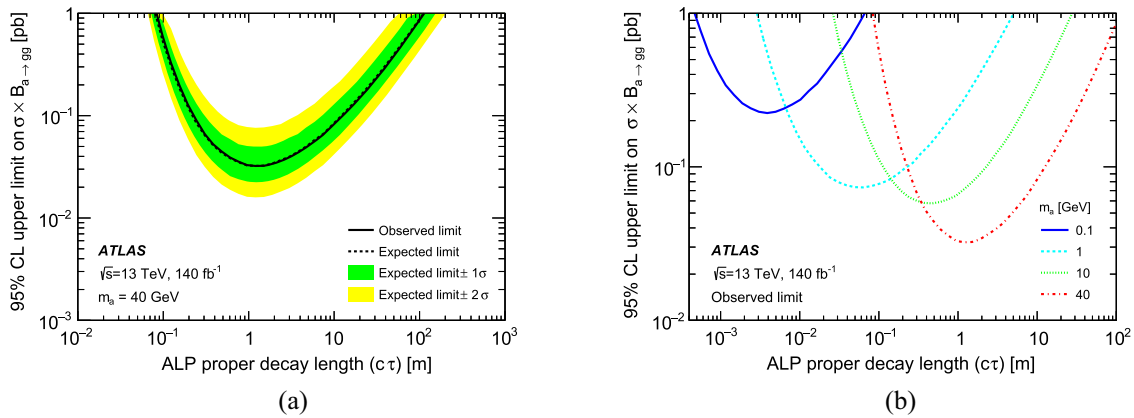


FIG. 15. Summary of the limits for the Z + ALP model. (a) Comparison between observed and expected 95% CL upper limits on the Z + ALP production cross section $\sigma \times B_{a \rightarrow gg}$ for $m_a = 40$ GeV. (b) Observed 95% CL upper limits on $\sigma \times B_{a \rightarrow gg}$ for all considered ALP mass points.

^{*}Full author list given at the end of the original article.

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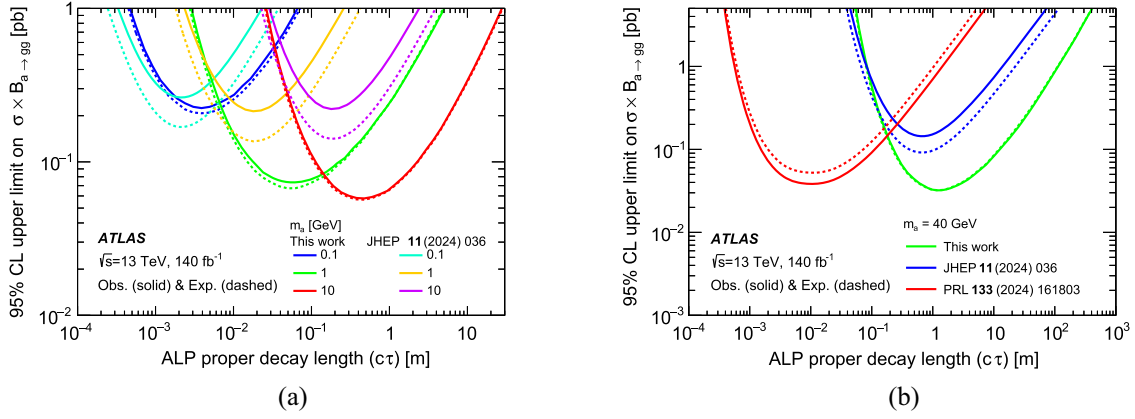


FIG. 16. Comparison of the expected and observed 95% CL upper limits on the $Z + \text{ALP}$ production cross section for (a) $m_a = 0.1, 1$, and 10 GeV and the one of Ref. [58] and for (b) $m_a = 40 \text{ GeV}$ which is also covered in Ref. [59]. The observed limits are consistent with the expected ones within the uncertainties.

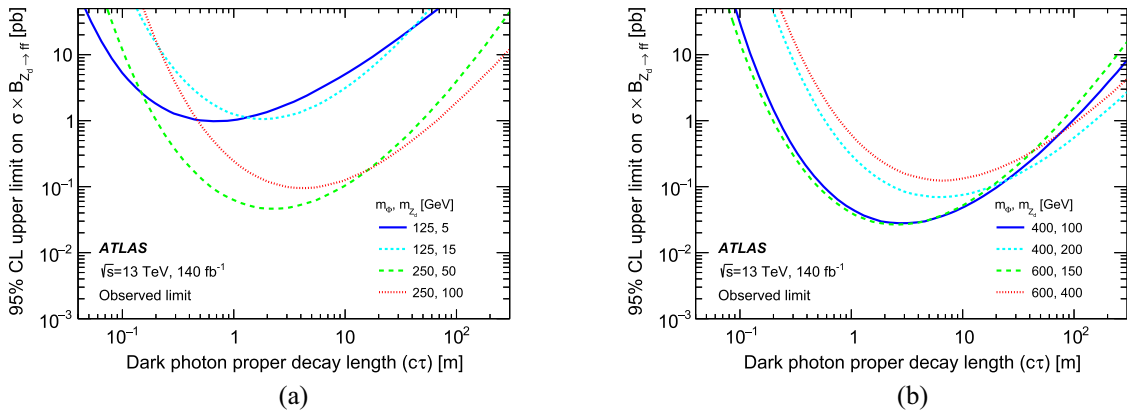


FIG. 18. Observed 95% CL upper limits on the $\sigma \times B_{Z_d \rightarrow ff}$ production cross section for dark photon Z_d benchmark samples with $m_{\phi'} = 125, 250 \text{ GeV}$ (a) and $m_{\phi'} = 400, 600 \text{ GeV}$ (b). The observed limits are consistent with the expected ones within the uncertainties.

scaled a factor of 10 too large, producing limits an order of magnitude weaker than the correct values. This impacted two of the limits shown in Fig. 18, with the updated version included below.