


**Erratum: Search for Cosmic-Ray Boosted Sub-GeV Dark Matter
Using Recoil Protons at Super-Kamiokande
[Phys. Rev. Lett. 130, 031802 (2023)]**

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The SK limit in Fig. 3 of this Letter was too constraining by a factor of 20 due to a unit conversion error. This error was limited to Fig. 3 and a discussion paragraph. All other conclusions remain unchanged. The corrected figure is included in this erratum as Fig. 1. The corrected discussion paragraph follows:

The recent CRDM search result from PANDAX-II [1] assuming constant cross section is also shown for comparison. Owing to the large exposure of SK and the directional information from the Cherenkov ring, the constraint from SK is better than the existing limits by a factor of 2.

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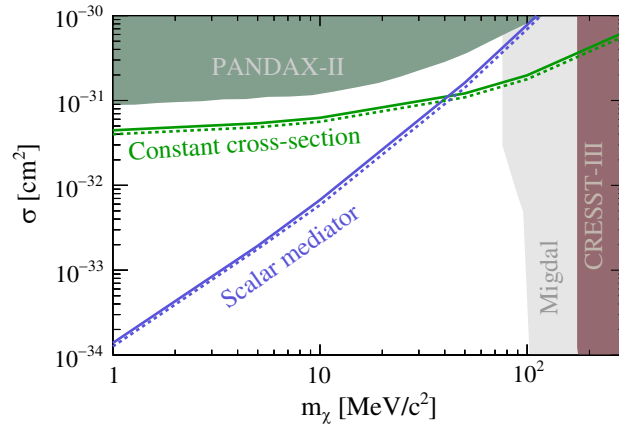


FIG. 1. Constraints on dark-matter-nucleon cross section. Solid lines show the upper limit while dashed lines indicate the sensitivity. The green lines are calculated with a constant cross section model. The blue lines are the cross sections at the nonrelativistic limit (σ_{NR}) for the scalar mediator model. The shaded sage green region indicates the PANDAX-II CRDM exclusion region [1]. The shaded maroon region shows the CRESST-III exclusion region [2], and the shaded gray region shows the constraints via Migdal effect from CDEX-1B [3] and XENON1T [4].

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