



Corrigendum

Corrigendum to “Transverse extension of partons in the proton probed in the sea-quark range by measuring the DVCS cross section” [Phys. Lett. B 793 (2019) 188]

The COMPASS Collaboration

ARTICLE INFO

Article history:

Available online 3 December 2019

This Corrigendum refers to a previous letter [1] (PLB 793 (2019) 188) published by the COMPASS collaboration using a data sample taken in 2012.

Here we give an update of Fig. 5 of Ref. [1]. The following corrections were applied: In both Fig. 1 a) and b) the unit of the slope B has been corrected. In the Fig. 1 a) the scale on the right for $\langle r_{\perp}^2 \rangle$ has been updated.

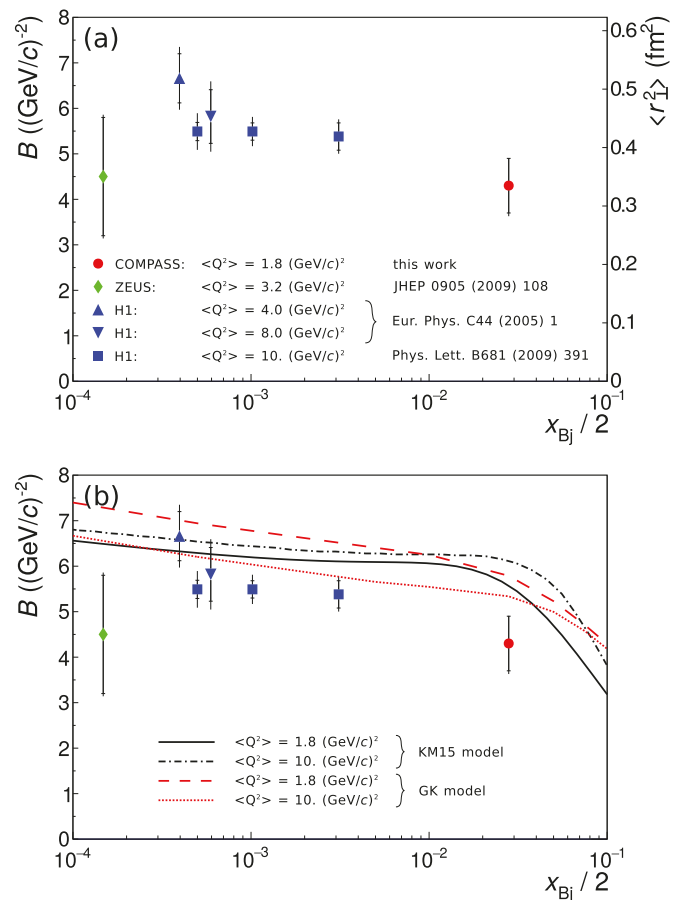


Fig. 1. (a) Results from COMPASS and previous measurements by H1 [2,3] and ZEUS [4] on the t -slope parameter B , or equivalently the average squared transverse extension of partons in the proton, $\langle r_{\perp}^2 \rangle$, as probed by DVCS at the proton longitudinal momentum fraction $x_{\text{Bj}}/2$ (see text [1]). Inner error bars represent statistical and outer ones the quadratic sum of statistical and systematic uncertainties. (b) Same results compared to the predictions of the GK [5–7] and KM15 [8,9] models.

DOI of original article: <https://doi.org/10.1016/j.physletb.2019.04.038>.

References

- [1] R. Akhunzyanov, et al., COMPASS Collaboration, Phys. Lett. B 793 (2019) 188.
- [2] A. Aktas, et al., H1 Collaboration, Eur. Phys. J. C 44 (2005) 1.
- [3] F.D. Aaron, et al., H1 Collaboration, Phys. Lett. B 681 (2009) 391.
- [4] S. Chekanov, et al., ZEUS Collaboration, J. High Energy Phys. 05 (2009) 108.
- [5] S.V. Goloskokov, P. Kroll, Eur. Phys. J. C 42 (2005) 281.
- [6] S.V. Goloskokov, P. Kroll, Eur. Phys. J. C 53 (2008) 367.
- [7] S.V. Goloskokov, P. Kroll, Eur. Phys. J. C 65 (2010) 137.
- [8] K. Kumericki, D. Müller, Nucl. Phys. B 841 (2010) 1.
- [9] K. Kumericki, D. Müller, EPJ Web Conf. 112 (2016) 01012.
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²² Supported by MEYS, Grant LG13031 (Czech Republic).

²³ Supported by B.Sen fund (India).

²⁴ Supported by FCT - Fundação para a Ciência e Tecnologia, COMPETE and QREN, Grants CERN/FP 116376/2010, 123600/2011 and CERN/FIS-NUC/0017/2015 (Portugal).

²⁵ Supported by MEXT and JSPS, Grants 18002006, 20540299, 18540281 and 26247032, the Daiko and Yamada Foundations (Japan).

²⁶ Supported by the Ministry of Science and Technology (Taiwan).

²⁷ Supported by the Israel Academy of Sciences and Humanities (Israel).

²⁸ Supported by the Russian Federation program "Nauka" (Contract No. 0.1764.GZB.2017) (Russia).

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