

**Erratum: Impact parameter dependent parton distributions
and off-forward parton distributions for $\zeta \rightarrow 0$
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Throughout the paper, a sign error occurred in the exponents of Fourier transforms. Specifically, Eq. (2.4) should read

$$\begin{aligned}\mathcal{F}_\psi(\vec{q}) &\equiv \int d^3x e^{i\vec{q} \cdot \vec{x}} \langle \Psi | \rho(\vec{x}) | \Psi \rangle = \int \frac{d^3p}{\sqrt{2E_{\vec{p}} 2E_{\vec{p}'}}} \Psi^*(\vec{p} + \vec{q}) \Psi(\vec{p}) \langle \vec{p}' | \rho(\vec{0}) | \vec{p} \rangle \\ &= \frac{1}{2} \int d^3p \frac{E_{\vec{p}} + E_{\vec{p}'}}{\sqrt{E_{\vec{p}} E_{\vec{p}'}}} \Psi^*(\vec{p} + \vec{q}) \Psi(\vec{p}) F(q^2).\end{aligned}\quad (2.4)$$

Equation (3.3) should read

$$\begin{aligned}\mathcal{F}_\Psi(x, \vec{q}_\perp) &\equiv \int d^2q_\perp e^{i\vec{q}_\perp \cdot \vec{b}_\perp} f_\Psi(x, \vec{b}_\perp) \\ &= \int \frac{d^2p_\perp \Psi^*(\vec{p}'_\perp) \Psi(\vec{p}_\perp)}{\sqrt{2E_{\vec{p}} 2E_{\vec{p}'}}} \int dx^- e^{ixp^+ x^-} \langle p' | \bar{\psi}(0, \vec{0}_\perp) \psi(x^-, \vec{0}_\perp) | p \rangle \\ &= \int \frac{d^2p_\perp \Psi^*(\vec{p}'_\perp) \Psi(\vec{p}_\perp)}{\sqrt{2E_{\vec{p}} 2E_{\vec{p}'}}} f_\xi(x, q^2).\end{aligned}\quad (3.3)$$

Equation (4.1) should read

$$f(x_{Bj}, \vec{b}_\perp, Q^2) = \int \frac{d^2q_\perp}{2\pi} e^{-i\vec{q}_\perp \cdot \vec{b}_\perp} f_{\xi=0}(x_{Bj}, -\vec{q}_\perp^2, Q^2).\quad (4.1)$$

Equation (5.1) should read

$$f(x_{Bj}, \vec{b}_\perp) = \int \frac{d^2q_\perp}{2\pi} e^{-i\vec{q}_\perp \cdot \vec{b}_\perp} f_{\xi=0}(x_{Bj}, -\vec{q}_\perp^2).\quad (5.1)$$

In the case of the generalized parton distributions $H(x, 0, -\vec{q}_\perp^2)$ and $\tilde{H}(x, 0, -\vec{q}_\perp^2)$, the sign in the exponent does not matter since they are even functions of $\vec{q}$ and therefore the main conclusions of the paper remain unchanged. However, when one considers generalized parton distributions with helicity flip, one encounters odd functions of $\vec{q}$ and the sign in the exponent becomes crucial.

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