

Erratum: Diffractive exclusive photon production in DIS at DESY HERA [Phys. Rev. D 58, 114001 (1998)]

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On p. 114001-7, the sixth sentence of Sec. VI should read: . . . where ϕ_N is the azimuthal angle between the plane defined by γ^* and the final state proton and the x - z plane and ϕ_e is the azimuthal angle between the plane defined by the initial and final state electron and the x - z plane (see Fig. 3). Thus ϕ_r is nothing but the angle between the γ^* - p' and the electron's scattering planes.

On p. 114001-7, the fourth paragraph of Sec. VI around Eq. (37) should read: In the case of the Bethe-Heitler process, we find the differential cross section at small t to be

$$\frac{d\sigma_{BH}}{dx dy d|t| d\phi_r} = \frac{a^3 s y^2 [1 + (1-y)^2]}{\pi Q^4 |t| (1-y)} \left[\frac{G_E^2(t) + \tau G_M^2(t)}{1 + \tau} \right]$$

with $\tau = |t|/4m_N^2$ and s being the invariant energy. Omit Eq. (38).

Equation (41) changes to

$$\frac{d\sigma_{DVCS+BH}^{int}}{dx dy d|t| d\phi_r} = \pm \frac{\eta \alpha^3 s y [1 + (1-y)^2] \cos(\phi_r) e^{-B|t|/2} F_2(x, Q^2)}{2 Q^5 \sqrt{(|t|)} \sqrt{(1-y)} R} \left[\frac{G_E(t) + \tau G_M(t)}{1 + \tau} \right].$$

The second sentence after Eq. (41) should read: The total differential cross section is then just the sum of Eqs. (36), (37), and (41).

On p. 114001-9, the second and third sentences should read: Using the expressions from Sec. VI, we compute D and find $D > 1$ [see Figs. 4(a) and 5(a)] for relatively small y and $0.1 \leq t \leq 0.6$ with the given values of x and Q^2 considered. Note, however, that this does not mean that the case for DVCS is hopeless. As it turns out, it is rather advantageous to have $D < 1$ when looking at the interference term, which we will do next.

The sentence in brackets before Eq. (43) should read: [we omit the rather cumbersome explicit expression, but the reader can easily deduce it from Eqs. (36), (37), and (41)].

The last sentence of Sec. VII should read: Finally, we demonstrated that measuring the asymmetry A at the DESY ep collider HERA, which is fairly sizable in the kinematics in question, would allow one to determine the real part of the DVCS amplitude, in other words gain a first experimental insight into nondiagonal parton distributions, despite $D < 1$.

The conclusions of the paper remain unaltered.

The corrected Figs. 4(a), 4(b), 5(a), 5(b), 6(a), 6(b), 7(a), and 7(b), as well as a completely corrected version of the paper can be obtained from the following URL: <http://andrea.fi.infn.it/freund>

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