

## Quasi-real photon contribution to $A_N$ in $lp \rightarrow \text{pion X}$ in a TMD approach

*Monday, 30 May 2016 11:00 (30 minutes)*

Within a TMD approach we discuss the impact of quasi-real(Weizsacker-Williams) photon contribution to the transverse single spin asymmetry,  $A_N$ , for the inclusive process  $lp \rightarrow \text{pion X}$ . This study extends a previous one where only the leading order contribution was taken into account. The predictions are obtained adopting the Siverson and transversity distributions and the Collins fragmentation functions as extracted from fits to the azimuthal asymmetries measured in semi-inclusive deep inelastic scattering and  $e+e-$  annihilation processes. The description of the available data is very good, showing a clear general improvement with respect to the previous analysis. Predictions for future experiments are also given.

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