## **EPS-HEP2023** conference



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## Using photon-hadron production to impose restrictions on heavy-hadrons fragmentation functions

Thursday 24 August 2023 10:40 (12 minutes)

Fragmentation Functions (FF) are universal non-perturbative objects that model hadronization in some general kind of processes. They are mainly extracted from experimental data, hence constraining the parameters of the corresponding fits is crucial for achieving reliable results. As expected, the production of lighter hadrons is favoured w.r.t. heavy ones, thus we would like to exploit the precise knowledge of pion FFs to constraint the shape of kaon (or heavier) FFs. In this talk, we show how imposing specific cuts on photon-hadron production leads to relations between the u-started FFs. For doing so, we exploit the reconstruction of momentum fractions in terms of experimentally-accessible quantities and introduce NLO QCD + LO QED corrections to reduce the theoretical uncertainties.

## **Collaboration / Activity**

None

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