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Fragmentation related measurements at Belle

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The Belle experiment at the asymmetric e+e- collider KEKB provides a large data set not only for the exploration of flavor physics but also for precision QCD studies. The clean initial state is particularly well suited to investigate the process of high-energetic partons fragmenting into final state hadrons. Various results related to unpolarized and polarized fragmentation functions have been obtained in the previous years. A new measurement studies the creation of transverse momentum with respect to the fragmenting parton in the fragmentation process. Such transverse momentum dependent functions are the main input in learning about the three-dimensional structure of the nucleon using other reactions such as hadron collisions or semi-inclusive DIS.
In particular for the future electron-ion collider this information is essential as in e+e- annihilation only the fragmentation process can be singled out. The latest results show that the transverse momentum width of the extracted single hadron cross sections has a nontrivial fractional energy dependence as well as an interesting dependence on hadron type.
The latest results on this measurement and previous fragmentation function related results will be presented.

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