

# XXVIII International Workshop on Deep-Inelastic Scattering and Related Subjects



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## First phenomenological extraction of a universal TMD Fragmentation Functions from single hadron production in $e^+e^-$ annihilations.

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The dynamical structure of hadronic matter is encoded in two non-perturbative, Transverse-Momentum-Dependent (TMD) partonic densities, the TMD distribution and fragmentation functions. TMD PDFs describe the way partons are arranged in nucleons, while TMD FFs are related to the mechanism of hadronization. A successful phenomenological extraction of these functions relies on their universality properties, which allow the simultaneous exploitation of the largest possible amount of data belonging to different hadronic processes.

We present the first extraction of a universal TMD FF from single hadron production off  $e^+e^-$  scattering. This is the first step of a much broader analysis scheme, in which we plan to include Semi-Inclusive-Deep-Inelastic Scattering as well as  $e^+e^-$  annihilation and Drell-Yan data.

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