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Universality-breaking effects in $e+e-$ hadroproduction

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Recent BELLE measurements provide the cross section for single hadron production in $e+e-$ annihilations, differential in the hadron transverse momentum with respect to the thrust axis. Universality breaking effects due to process-dependent soft factors make it very difficult to relate this cross section to that corresponding to hadron-pair production in $e+e-$ annihilations, where TMD fragmentation functions are defined through the so-called “square-root definition”. I will examine this correspondence in the framework of CSS factorization and provide the sketch of a scheme that might allow to relate 1-jet to 2-jet $e+e-$ cross sections, neatly separating soft and collinear non-perturbative effects from the terms which can be calculated using a perturbative approach.

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