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Subleading power corrections for event shape variables in e+e- collisions

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The precise computation of cross section for scattering processes relevant at colliders involves the evaluation of phase-space integral that are IR divergent in d=4 dimensions. The subtraction of those divergences is a key ingredient to obtain fully-differential predictions for physical observables. One possibility is offered by non-local subtraction methods built upon suitably defined IR-safe resolution variables. Prominent examples for NNLO calculations are given by N-jettiness and qt-subtraction. A new variable, named ktness, has been recently proposed and used to perform NLO calculations for jet processes. The computation of the perturbative ingredients needed for the non-local subtraction formalism is performed in a leading power expansion around the soft and/or collinear limits. Hence, the performance of the method crucially relies on the size of the neglected power suppressed terms.
We discuss a class of resolution variables relevant for the calculation of higher-order QCD corrections in electron-positron collisions.
We present results at NLO and we compute the corresponding power corrections with analytical and numerical methods.
We also report on our ongoing work towards an extension of ktness subtraction to NNLO.

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