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Automating the calculation of jet functions in SCET

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In pertubative QCD large logarithms can arise in the computation of collider observables. These logarithms can be resummed via factorization theorems within Soft-Collinear Effective Theory(SCET). The factorization theorems contain jet functions, which describe collinear interactions.
In this talk I present a systematic framework for the computation of jet functions for generic observables. For this purpose we introduce a phase space parametrization which allows the factorization of universal singularities of jet functions. We have implemented this framework for different observables, by using the public code "pySecDec" to compute the next-to-leading order and part of the next-to-next-to-leading order jet function.

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