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Bottom mass corrections to boosted-top cross section

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In this talk we present the computation of the secondary massive quark corrections to the bHQET thrust distribution at NNLO. The missing pieces of the corresponding factorization theorem at this order are the jet and hard functions.

For the calculation of the massive bubble diagrams we employ the Mellin Barnes representation for the dispersive integral, that enables expressing the result as analytic, fast-converging power series of a small parameter rather than integrals that can only be solved numerically.

The secondary mass makes necessary employing different EFT setups in various parts of the spectrum. We obtain the flavour matching coefficients necessary to make the top-down running continuous when integrating out the secondary quark mass. They satisfy the consistency condition from the bottom-up running.

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