

PAUL SCHERRER INSTITUT



Particle Theory Seminar

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“Finite fermion mass effects in NNLO Higgs production”

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Abstract:

The evaluation of the quark-mass suppressed terms to the Higgs production cross section in gluon fusion at next-to-next-to-leading order is reported on. In the region below threshold, the Feynman diagrams are evaluated using asymptotic expansions. The result is then matched to the high-energy limit derived from k_T factorization. The result shows that the heavy-top limit used so far approximates the full result to better than 1%.