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Mixed QCD-Electroweak corrections to the Drell-Yan process in the high invariant mass region

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The Drell-Yan process continues to play an import role in putting to test the Standard Model (SM) and possibly revealing physics beyond it. In particular, investigating the high invariant mass region can be used to constrain heavy New Physics. To achieve this goal, high-precision theoretical predictions within the SM are needed. In this talk, we will focus on mixed QCD-electroweak corrections, which are expected to reach the percent level at high invariant masses. A critical aspect of the calculation is the extraction of soft and collinear singularities from real emission contributions. We will discuss some aspects of their treatment, and comment on the phenomenological outcomes of our studies.

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