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A Precision Event Generator for EW Radiative Corrections in Hadron Scattering: KKMC-hh

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KKMC-hh is a precision event-generator for Z production and decay in hadronic collisions, which applies amplitude-level resummation to both initial and final state photon radiation, including perturbative residuals exact through order $\alpha^2 L$, together with exact order α electroweak matrix element corrections. We present some comparisons to other programs and results showing the effect of multi-photon radiation for cuts motivated by a recent ATLAS W -mass analysis. We also show preliminary untuned comparisons of the electroweak corrections of KKMC-hh to those of HORACE, which includes order exact α EW corrections with resummed final-state photon radiation.

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