

Top quark mass effect in Z boson pair production through gluon fusion

Tuesday 16 April 2024 15:30 (30 minutes)

Based on our calculation of the two-loop helicity amplitudes for on-shell W/Z boson pair production in gluon fusion with exact top quark mass dependence, we present preliminary results on the impact of the top quark mass effect to the Z boson pair production. Integral reduction is performed numerically for each phase space point and the master integrals are evaluated using the auxiliary mass flow method and the differential equation method in the phase space, enabling efficient phase space integration.

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Session Classification: Parallel 4

Track Classification: LHC