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## Multi-scale Feynman integrals contributing to mixed QCD EW corrections to $H \rightarrow Z Z^*$

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I present new analytic results for Feynman integrals that contribute to mixed QCD-EW corrections to partial decay width for  $H \rightarrow Z Z^*$ . These corrections include the massive top-quark contributions. The analytic computation of these integrals is challenging due to the presence of many massive scales. These two-loop integrals are solved using the method of differential equations by bringing them to a canonical form, keeping full dependence on masses of the internal propagators.

I explain the construction of a dlog-form for the differential equation, which is obtained despite the presence of (non-) rationalizable square roots.

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