$I_3^{\{D=4\}}(0, m^2, s_{13}; m^2, m^2, 0)$

Page contributed by R.K. Ellis

Expression valid in the region $s_{13} < 0, m^2 > 0$ from ref. [1]

$$I_3^{\{D=4\}}(0, m^2, s_{13}; m^2, m^2, 0) = \frac{-1}{m^2 - s_{13}} \left(\frac{1}{2} \ln^2 \left(\frac{m^2 - s_{13}}{m^2} \right) + \mathrm{Li}_2 \left(\frac{-s_{13}}{m^2 - s_{13}} \right) + \frac{\pi^2}{6} \right)$$

An equivalent expression from Eq. (A8) of ref. [2].

$$I_3^{\{D=4\}}(0, m^2, s_{13}; m^2, m^2, 0) = \frac{-1}{m^2 - s_{13}} \left(\frac{\pi^2}{6} - \mathrm{Li}_2 \left(\frac{s_{13}}{m^2} \right) \right)$$

Return to general page on triangles

References

[1] S. Dawson, R. K. Ellis and P. Nason (unpublished)

[2] W. Beenakker, H. Kuijf, W. L. van Neerven and J. Smith, Phys. Rev. D **40**, 54 (1989). Inspire