

Parity-Violating Moller Scattering at NNLO: Electroweak bosonic contribution

We present the analytic computation of the two-loop electroweak bosonic correction to the parity asymmetry in Moller scattering at low energy. The hierarchy of scales, namely $m_Z^2 \gg q^2 \gg m_e^2$, and the IR singularities are treated with the method of regions. We discuss the implications of our results to MOLLER at JLab and give an outlook for electron-proton and electron-nucleus scattering at P2.

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