

The High Energy $\gamma\gamma\rightarrow\gamma\gamma$ Scattering Cross Sections

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Abstract: Contributions of fermion loops, W-boson loops and their sum to the high energy $\gamma\gamma\rightarrow\gamma\gamma$ scattering total cross sections ($|\cos\theta|<\cos 30^\circ$) are calculated by analytical expressions of $\gamma\gamma\rightarrow\gamma\gamma$ scattering amplitude. These contributions may be observed in the future photon linear collider and may be used to test standard model. The contribution of fermions' loops is a half of that in R.K. Arphlus and M. Neuman's paper (Phys. Rev. 80 (1950) 380; 83 (1951) 776).

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