

Numerical estimation of radiative corrections to e^+e^- -annihilation processes

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The processes of electron-positron annihilation into a virtual photon or a Z-boson is considered. QED radiative corrections due to the initial state radiation in these processes are estimated upto the $\mathcal{O}(\alpha^5)$ order within the leading and next-to-leading logarithmic approximations. The results are relevant for verification of the Standard Model and searches for new physical phenomena at future high-luminosity electron-positron colliders such as the FCC-ee (CERN) and CEPC (China).

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