

QED CORRECTIONS  
TO ELECTRON-POSITRON ANNIHILATION  
CROSS-SECTION WITH TAGGED COLLINEAR  
PHOTONS AND  $e^+ e^-$ -PAIR

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The possibility of a precise scanning of the hadron cross-section in the process of electron-positron annihilation is considered. It can be done by selection and analysis of the events with collinear photons and an  $e^+ e^-$ -pair radiated from the initial state. The energy distribution for all particles, hitting a detector placed along the electron beam direction, is derived taking into account radiative corrections. The corresponding contribution due to photon emission is calculated with next-next-to-leading order (NNLO) accuracy, and the contribution caused by the pair production with next-to-leading order (NLO) one. The results obtained are illustrated with numerical estimations.