The 2025 International Workshop on the High Energy Circular Electron Positron Collider

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Higher-order ISR corrections to electron-positron annihilation processes

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Radiative corrections due to initial state radiation in electron-positron annihilation are calculated within the QED structure function approach. Results are shown in the next-to-leading logarithmic approximation up to O(alpha $^4L^3$) order, where L=ln(s/m 2 _e) is the large logarithm. Dependence on factorization scale and scheme choices is analyzed. The results are relevant for future high-precision experiments at e+e- colliders.

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