

Abstract Submitted
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Electromagnetic Radiative Corrections in e/p Scattering for Q_{weak}'s Measurement of a Parity-Violating Asymmetry in Elastic e/p Scattering TYLER WEBB, DAMON SPAYDE, None, QWEAK COLLABORATION — I will present on electromagnetic radiative corrections applied to a measurement of the parity-violating asymmetry in e/p scattering. This measurement is part of the Qweak collaboration's effort to extract the weak-mixing angle with high precision. The calculation of the angle from the measured quantity assumes a tree-level process, although the actual scattering does not occur at tree level. As the electron propagates, its possible momentum transfer is lessened due to bremsstrahlung and ionization, thereby reducing the measured asymmetry. I will demonstrate how I used simulation to calculate a more correct asymmetry value which, when compared with a simulated tree-level asymmetry, can be used to correct Qweak's data.

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None

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