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Two-Loop Effects in Low-Energy Electroweak Measurements

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The talk will outline the recent results on the two-loop electroweak contributions to the electron-electron scattering cross sections and asymmetries.

Of course, the two-loop corrections are strongly suppressed relative to the one-loop corrections, but they still contribute a few percent to the cross section, and even this small contribution cannot be ignored at for ultraprecision experiments such as MOLLER planned at JLab.

The NNLO calculation techniques we developed for the electron-electron scattering can be adapted for electron-proton processes, electron-positron collisions, and other low-energy experiments involving leptons.

Summary

Primary author(s) : Dr. ZYKUNOV, Vladimir (Belarussian State University of Transport)

Co-author(s) : Dr. ALEKSEJEVS, Aleksandrs (Grenfell Campus of Memorial Univeristy); Dr. BARKANOVA, Svetlana (Acadia University)

Presenter(s) : Dr. ALEKSEJEVS, Aleksandrs (Grenfell Campus of Memorial Univeristy)

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