

Drell-Yan SMEFT at NLO

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The Drell Yan (DY) scattering is an highly sensitive probe for new physics. Indeed, being a well measured phenomenon, any deviation between experimental and theoretical results could point at new physics beyond the Standard Model. To enable precise comparisons between theory and experimental data, extensive calculations have been performed in both the electroweak and QCD sectors of the Standard Model. Following this line of reasoning, the DY scattering has been investigated also in the Standard Model Effective Field Theory (SMEFT) framework, both at LO and NLO. Nevertheless, existing results do not include 4-fermion operators at NLO SMEFT. In this talk we extend these calculations in order to include all dimension-6 operators with an arbitrary flavor structure, providing NLO QCD and electroweak for the neutral Drell-Yan process.

Alternate track

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Primary authors: VICINI, Alessandro (Università degli Studi e INFN Milano (IT)); BAGNASCHI, Emanuele Angelo (INFN Laboratori Nazionali di Frascati); BELLAFRONTE, Luigi (Florida State University); GIARDINO, Pier Paolo (Universidade de Santiago de Compostela); DAWSON, Sally (BNL)

Presenter: BELLAFRONTE, Luigi (Florida State University)

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