



EINLADUNG

im Rahmen des Teilchenphysikseminars

zum Vortrag

von

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über

***„Revolver
A fast code for automated running and
matching of couplings and masses in QCD“***

Abstract:

In this talk I present the soon to be released software package "Revolver", which focuses on fast and precise running, matching and conversion of QCD parameters. Revolver provides an easy to use setup for renormalization group evolution with automatic matching of the QCD coupling and quark masses in the $\overline{\text{MS}}$ and MSR scheme, as well as conversion between various quark mass renormalization schemes. For most precise mass scheme conversion we implement effects originating from lighter massive quark flavors, and resum potentially large logs of characteristic scale ratios which usually appear in naive fixed order conversion by utilizing R-evolution (IR-renormalization group flow). After reviewing some of the fundamental concepts and ideas behind quark mass renormalization schemes and R-evolution, some details of the code and its usage are discussed, including a live demo.

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gez.: A. Hoang, S. Plätzer