

# RESUMMATION IN QCD FRACTIONAL ANALYTIC PERTURBATION THEORY

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## S u m m a r y

We describe the generalization of Analytic Perturbation Theory (APT) for QCD observables, initiated by Radyushkin, Krasnikov, Pivovarov, Shirkov, and Solovtsov, to fractional powers of coupling — Fractional APT (FAPT). The basic aspects of FAPT are shortly summarized. We describe how to treat heavy-quark thresholds in FAPT and then show how to resum perturbative series in both the one-loop APT and FAPT. As an application, we consider the FAPT description of the Higgs boson decay  $H^0 \rightarrow b\bar{b}$ . The main conclusion is: To achieve an accuracy of the order of 1%, it is enough to consider up to the third correction.