High loop renormalization constants by NSPT: a status report

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We present an update on Numerical Stochastic Perturbation Theory projects for Lattice QCD, which are by now run on apeNEXT. As a first issue, we discuss a strategy to tackle finite size effects which can be quite sizeable in the computation of logarithmically divergent renormalization constants. Our first high loop determination of quark bilinears for Wilson fermions was limited to finite constants and finite ratios. A precise determination of $Z_P$ and $Z_S$ (and hence of $Z_m$) now becomes possible. We also give an account of computations for actions different from the standard regularization we have taken into account so far (Wilson gauge action and Wilson fermions). In particular, we present the status of computations for the Lattice QCD regularization defined by tree level Symanzik improved gauge action and Wilson fermions, which became quite popular in recent times. We also take the chance to discuss the related topic of the computation of the gluon and ghost propagators (which we undertook in collaboration with another group). This is relevant in order to better understand non-perturbative computations of propagators aiming at qualitative/quantitative understanding of confinement.