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Algorithmic advances in NSPT

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Numerical stochastic perturbation theory (NSPT) is a powerful tool that allows perturbation expansions in QCD and other interesting theories to be estimated to high order in the interactions. The standard algorithms on which NSPT is based on, however, suffer from several limitations which in practice restrict the potential of these techniques. In this talk I will review the recent algorithmic advances in this field and show how these significantly reduce the computational effort for precise and accurate determinations. This opens up the way to tackle challenging and interesting new problems, as will be illustrated by a highly non-trivial computation.

Title

Algorithmic advances in NSPT

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