Contribution ID: 10

Strong coupling expansion of determinant observables in N=4 SYM

Wednesday 13 March 2024 10:00 (30 minutes)

A special class of observables in N=4 and N=2 SYM can be expressed as determinants of semi-infinite matrices. At strong coupling, the expansion of these observables are asymptotic. The perturbative coefficients was already determined in the literature. We have established a method to systematically calculate the nonperturbative part as well. It is based on the fact that the elements of the defining matrices are given by truncated Bessel kernels. Their structure provide several constraints to the observables in forms of differential and integral equations. Using them and the analyticity properties of the kernel the entire asymptotic series can be determined.

Authors: BOLDIS, Bercel (HUN-REN Wigner Research Centre for Physics, Budapest University of Technology and Economics); KORCHEMSKY, Gregory P.; BAJNOK, Zoltán

Presenter: BOLDIS, Bercel (HUN-REN Wigner Research Centre for Physics, Budapest University of Technology and Economics)

Session Classification: Short talks