

Kaluza-Klein AdS Virasoro-Shapiro Amplitudes

(Ellis) Ye Yuan

Zhejiang University

We bootstrap the first-order correction in the curvature expansion of the Virasoro-Shapiro amplitude in AdS spacetime, for arbitrary Kaluza-Klein charges of external operators. By constructing a universal ansatz based on single-valued multiple polylogarithms as well as an AdSxS formalism, and matching it with the low-lying result, we derive a unified formula in terms of world-sheet integrals. Our result predicts an infinite number of Wilson coefficients that were not available in previous literature. I will also report some ongoing progress on the second-order correction.