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Title:

"Computing Three-Point Functions for Short Operators"

Abstract:

We compute the three-point structure constants for short primary operators of $N=4$ super Yang-Mills theory to leading order in the inverse coupling by mapping the problem to a flat-space string theory calculation. We check the validity of our procedure by comparing to known results for three chiral primaries. We then compute the three-point functions for any combination of chiral and non-chiral primaries, with the non-chiral primaries all dual to string states at the first massive level. Along the way we find many cancellations that leave us with simple expressions, suggesting that integrability is playing an important role.