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Strong coupling expansions in N=2 quiver gauge theories

Tuesday, 20 December 2022 17:30 (10 minutes)

I will discuss recent developments in the study of 3-point functions of chiral single-trace scalar operators in a four-dimensional N=2 superconformal quiver theory with gauge group SU(N)×SU(N) and bifundamental matter. Using supersymmetric localization, it is possible to map the computation of these correlators to an interacting matrix model and obtain expressions that are valid for any value of the 't Hooft coupling in the planar limit of the theory. In particular, I will focus on the strong-coupling regime, where these expressions allow us to compute the leading and subleading orders of the 3-point functions and of the corresponding structure constants in an analytic way. We also recover the leading contribution with a holographic calculation using the AdS/CFT correspondence. This agreement confirms the validity of the analytic strong-coupling results and of the holographic correspondence in a nonmaximally supersymmetric setup.

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