

Whispers from the Dark Universe - Particles & Fields in the Gravitational Wave Era

CLUSTER OF EXCELLENCE
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WHISPERS FROM THE DARK UNIVERSE – PARTICLES & FIELDS IN THE GRAVITATIONAL WAVE ERA

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Integrated correlators at strong coupling in an orbifold of $\mathcal{N}=4$ SYM

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We consider the 4d $\mathcal{N} = 2$ superconformal quiver gauge theory obtained by a \mathbb{Z}_2 orbifold of $\mathcal{N} = 4$ super Yang-Mills (SYM). By exploiting supersymmetric localization, we study the integrated correlator of two Coulomb branch and two moment map operators and the integrated correlator of four moment map operators, determining exact expressions valid for any value of the 't Hooft coupling in the planar limit. Additionally, for the second correlator, we obtain an exact expression also for the next-to-planar contribution. Then, we derive the leading terms of their strong-coupling expansions and outline the differences with respect to the $\mathcal{N} = 4$ SYM theory.

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