Title:

One-Point Functions in ABJM Matrix Model

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Abstract:

Using the localization technique for supersymmetric correlation functions, the spherical one-point function of the half-BPS Wilson loop in the ABJM theory, which was originally defined by the infinite-dimensional path integral, reduces to a finite-dimensional matrix model. It was known that the non-perturbative effects of the matrix model are described by the free energy of topological strings. Aiming to understanding this relation more carefully, we have shown that the ABJM matrix model enjoys many interesting relations, such as the Giambelli identity, the quantum Jacobi-Trudi identity, the open-closed duality and so on. I would like to explain some of these identities, sketch the proofs and discuss the implications and generalizations.